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SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

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HEARINGS

BEFORE THE

COMMITTEE ON PUBLIC WORKS

UNITED STATES SENATE

NINETY-FOURTH CONGRESS

SECOND SESSION

JULY 27 AND 28, 1976

SERIAL NO. 94–H49

Printed for the use of the Committee on Public Works

AUTHENTICATED
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76-161 O WASHINGTON : 1976

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SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

TUESDAY, JULY 27, 1976

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met at 7:12 p.m., pursuant to call, in room 4200, Dirksen Senate Office Building, Hon. Jennings Randolph (chairman of the committee) presiding.

Present: Senators Randolph, Muskie, Burdick, Hart, Baker, and Domenici.

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator RANDOLPH. Good evening, ladies and gentlemen.

The Committee on Public Works this evening and also tomorrow evening will conduct two hearings on a difficult subject as we review the environmental problems with which the Congress is faced.

We hope to further our understanding of the problem or problems and to receive recommendations for an effective resolving of these issues.

The situation has arisen, as members of the committee know, from the Water Pollution Control Act Amendments of 1972, section 404 of that legislation requires the Army Corps of Engineers to issue permits for the disposal of dredge and fill material in our navigable waters.

When we wrote the act, we were concerned primarily or even solely with controlling the way in which these materials were disposed. Dredge and fill materials often are highly contaminated, and thus a situation should be addressed in the terms of water pollution control.

All the members of the committee have expressed an interest in this subject, and we are appreciative that many of them arranged their schedules to be here tonight.

We did not understand earlier that a judicial decision would subsequently broaden the impact, as I have referred to it, of section 404. As a result of the action in the courts, the Corps of Engineers has set down regulations covering an extensive range of activities. These are proposed to be implemented in three phases. The first phase has already gone into effect. The regulations covering phase two were to have been implemented on July 1, but were ordered postponed by the President pending action in the Congress.

These hearings have been planned by the committee to review the implication of the Corps of Engineers' regulations. Legislation has been adopted by the House of Representatives, and there are proposals pending in the Senate.

The witnesses counseling with us during these two evenings represent a broad spectrum of affected parties. I am sure all members of the committee welcome the opportunity to hear the witnesses and discuss with them in dialog the problems that we know are necessary to be discussed. The exchange, I am sure, between members of the committee and those who testify will be helpful, as well as the formal statements.

Senator Robert Dole of Kansas is at the witness table. We are prepared to hear his testimony at this time.

Are there comments from members of the committee? Senator Muskie?

OPENING STATEMENT OF HON. EDMUND S. MUSKIE, U.S. SENATOR FROM THE STATE OF MAINE

Senator MUSKIE. I have a brief statement which I hope will be helpful. I had hoped that the Senate could defer until next year consideration of the substantive issues associated with the 1972 Clean Water Act.

Unfortunately, much of the debate, much of the regulations, and much of the suggested legislative responses stem from what I regard as a misinterpretation of congressional intent.

Section 404 is designed to require the corps, because of their existing authority to maintain navigation, to regulate the dumping of polluted dredge spoil at specified disposal sites, the EPA having veto power over the selection of the sites. That was the intent precisely and specifically stated.

Section 404 was an exception to the otherwise comprehensive regulatory program embodied in section 402. But implementation of section 404 has not led to the end of open water dredge spoil discharge, which was the specific objective of section 404.

No specified disposal sites have been established. Instead, the section 404 regulations have led to confusion, irritation, and divisiveness that have undermined the confidence in the basic Federal role in water pollution control.

They have created a perception of needless interference in the affairs of farmers, foresters, miners, and ranchers whose activities were by no means comprehended as coming under the section of 404 when it was written.

At this point, the most appropriate course of action for this committee may be to strike section 404, eliminate this exception, and return to the basic regulatory structure anticipated by the act.

If we adopted this course, dredge, spoil, and fill would be considered pollutants. Where they are discharged, they would be regulated by the Environmental Protection Agency or the States. Where they are nonpoint sources, they would be regulated by the States pursuant to section 208. This was the original position of the Senate in 1972.

Given all the problems that section 404 has created, perhaps it should be in its saddest position now. I am not wedded to this position. My mind is open, whatever my emphasis may indicate to the contrary.

I hope the statements of our witnesses will help clarify these issues and provide us with a course of action which will preserve our ability to regulate the disposition of polluted dredge spoil without creating another unnecessary duplicated Federal regulatory program.

Senator RANDOLPH. Thank you, Senator Muskie, for your continuing leadership on the committee. We are grateful as members of our committee and the Senate as well.

Senator Baker, do you have any comments?

Senator BAKER. Mr. Chairman, I have no prepared statement at this time. Possibly I will have suggestions to make as we proceed. But I prefer to hear the testimony of the witness.

Senator RANDOLPH. Thank you, Senator Baker.

Senator Hart?

OPENING REMARKS OF HON. GARY HART, U.S. SENATOR FROM THE STATE OF COLORADO

Senator HART. Mr. Chairman, I have no prepared statement. As with other members of the Senate, I have my own proposal which I will be discussing with this committee and perhaps the full Senate on section 404 to deal with problems that Senator Muskie has so articulately identified.

It is a classic of a case that all of us in the Congress are faced with time and time again: the congressional intent and administrative implementation, between which there seems to be a gap.

The people of the country are upset. We are upset. Somehow the Congress and the executive branch must get together on the laws that are passed and implemented to free the people of this country from what they definitely consider to be burdensome regulations.

I think all of us have the same intent. We are here to try to solve that problem.

Senator RANDOLPH. Thank you, Senator.

Senator Domenici?

Senator DOMENICI. I have no comments, Mr. Chairman. Thank you.

Senator RANDOLPH. For the record, Governor Marvin Mandel of the State of Maryland had indicated to the committee that he would appear this evening and would address himself to the subject matter, not as a Governor of that State but for the National Governors' Conference.

The change of time and other commitments made it impossible for Governor Mandel to be with us tonight. He has submitted testimony which will be a part of our record. Did the Governor provide copies so that they might be available to those who will be covering the hearing or interested parties? Do you have knowledge of that?

Mr. MEYER.[1] Yes, sir.

Senator RANDOLPH. There are copies, then.

[The statement of the National Governor's Conference follows]

---

[1] M. Barry Meyer, Chief Counsel, Senate Public Works Committee.

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Cecil D. Andrus
Governor of Idaho
Chairman

Stephen B. Farber
Director

TESTIMONY OF

WARREN K. RICH, COUNSEL

MARYLAND DEPARTMENT OF NATURAL RESOURCES

ON BEHALF OF THE NATIONAL GOVERNORS' CONFERENCE

ON

SECTION 404 of P.L. 92-500

BEFORE THE

SENATE COMMITTEE ON PUBLIC WORKS

JULY 27, 1976

I wish to thank the members of this Committee for extending to me the opportunity to testify at this hearing. My testimony represents not only the views of the State of Maryland, but also those of the National Governors Conference, comprised of states which have ongoing regulatory programs directed to the same subject matter as the legislation you are considering today.

We support the inclusion of the Wright Amendment in S.2710 because it is an attempt to avoid duplication of effort and is a recognition of State prerogatives to manage and control land use within its own boundaries. For the past three years we have pointed out that Section 404 of P.L. 92-500 was not passed by Congress to serve as a national land use authority. This section, as enacted, did not set up a program, did not contain enforcement mechanisms or guidelines for the

regulation of wetlands, floodplains, water courses, or agricultural drainage areas. This section clearly was intended to regulate the unconfined deposition of dredged spoil into the nation's waterways. We have taken the liberty of documenting this point by attaching the relevant sections to the legislative history with citations to the printed testimony. Suffice it to say, however, the conferees who approved P.L. 92-500 did not intend to create a new bureaucracy in the Federal government, but their attention was focused primarily on one issue, the unconfined dumping of dredged spoil. Nor did the Corps of Engineers then believe that they possessed authority to establish a program regulating critical areas of land use. Their present regulations resulted from the case of Natural Resources Defense Council v. Calloway, decided in the District Court in the District of Columbia, 1/ and an opinion delivered by the District Court for the Middle District of Florida in U.S. v. Holland. 2/ These two cases did not really discuss the legislative history behind Section 404. Their determination principally relied on the definition of "navigable waters" found in P.L. 92-500 which laterally expanded the traditional definition to include areas beyond the high water mark. We further note that the various District Court decisions were not hotly contested, and it is our further contention that even if that definition were upheld, considering the history of Section 404, the Corps of Engineers was not mandated to manage every dredge and fill activity for every "natural and

artificial water in the United States including marshes, swamps, bogs, inland and coastal shallows contiguous to those waters, regardless of whether these areas are regularly or only periodically inundated".

We believe, therefore, that the two above cited judicial decisions were clearly contrary to the intent of Congress. The amendment to the section before you today will return some sense of balance to this continuing conflict between the States and the Federal government over matters clearly within states' traditional police powers.

For instance, in controlling wetland activities, the various states of this Union are enforcing their public trust which historically has been imposed on various subaqueous areas. In Maryland, as in most eastern states, land below mean high water is held by the state in trust for its citizens. This responsibility emanated from the language of the various grants from the English King to the lord proprietors of each of the provinces prior to the formation of this Union. This trust was preserved as each colony became a state and entered the Union.

Throughout the years, various private interests have attempted to set aside the public trust, but by and large, the decisions of the state courts and Supreme Court have sustained the states' responsibility to administer the trust for the benefit of its citizens as a traditional state police power. 3/ The trust has extended at times beyond a

technically navigable stream to what is considered a "public" stream, one to which certain public rights are attached although the stream is non-tidal in nature. The various states' prerogatives in administering these areas for its citizens have been reinforced by numerous state court decisions. 4/ These cases also support innovative state legislation which set up the procedures to carry out and enhance the public trust doctrine. The authority to protect state waters is grounded upon common law doctrines as well as judicially sanctioned legislation.

The policy of the various states is to preserve wetlands. Existing and pending legislation of environmentally concerned states seeks to prevent despoliation and destruction of their wetlands while considering the various ecological, economic, developmental, recreational, and aesthetic values of these very important natural resources, as well as considering and dealing with unique local conditions.

With the enactment of these water protection laws, many states have taken a firm and consistent posture in the management of state waters and adjacent wetlands. 5/ The hydrologic areas to which protection extends are statutorily delineated by the states. The implementation of this delineation has been accomplished by means of various types of surveys and photography at an expenditure of millions of dollars.

Under existing legislation, boundaries have been clearly defined and the issuance of permits has become an orderly and comprehensive process. The legislation generally reserves to the state the right to include conditions in the permits to insure proper protection. Additionally, civil and criminal penalties for violations have been established.

The Maryland Wetlands Law of 1970 can serve as an example of an effective program. Our wetlands are defined on the basis of astronomical tides and are delineated by aerial infra red photography. They are now systematically categorized as private or state wetlands, and notice is provided by registered mail and inclusion of Wetland Maps in the local Court Records. This provides due process to the regulated citizens. No such procedure to insure these safeguards has been included in the Corps of Engineers progra..

Except for projects clearly in the public interest, State wetlands may not be filled for developmental purposes, because that action would violate the public trust. Consistent with traditional riparian rights, limited areas may be dredged to enhance navigation, and small areas may be filled to arrest erosion. 6/

This ability to deal quickly and impartially with all wetlands issues is the result of our extensive State regulations. They provide a versatility that is to be found nowhere in the present Corps regulations. They allow the State to be responsive to both the needs of its citizens and ecological requirements.

In addition to administering the wetlands law, the Water Resources Administration of the Department of Natural Resources is charged with protecting the quality of the waters of the State in accordance with the State of Maryland Pollution Abatement Laws and the provisions of the Federal Water Pollution Control Act Amendments of 1972. Projects including dredging, filling or other activities which do or could affect the quality of the water, not only during construction, but also subsequently, are evaluated. For every project, determinations as to whether state and federal water quality standards will be achieved are carried out. Additionally, a Section 401 water quality certification must accompany every project involving a federal license.

The State's regulatory program for water quality management includes the assessment of the ecological affects of any project by Fisheries Administration, the Wildlife Administration, the Maryland Geological Survey and the Water Resources Administration. Included in this review are persons with expertise in marsh ecology, water quality, hydrology, and land and water uses of the area involved.

So much for a brief description of Maryland's waterway program in tidal waters. Maryland law and regulations also provide for five types of waterway permits for projects including the 50-year floodplain of non-tidal streams. 7/

Unless the Wright proposal as passed by the House is approved by the Senate, the Corps of Engineers Section 404 program will attempt to duplicate almost every one of Maryland's

initiatives. We emphasize the term "attempt" because the Corps of Engineers does not have the personnel to monitor these water related activities. Enforcements at the Federal level will be insufficient. Only after new positions are added and the bureaucracy is expanded with the addition of money and personnel would such Federal enforcement action become effective.

On the other hand, the State initiatives have resulted in the reduction of the rate of destruction of wetlands. In Maryland, for instance, we have estimated on the basis of comparative inventories for the period 1942-1967 that approximately 1,000 acres per year were lost prior to regulation. However, in Fiscal Year 1974, of 247.72 acres requested to be filled, only 78.27 acres were recommended for approval. Much of this was for public marine and recreational facilities as well as for shore erosion control. The area filled constitutes less than 0.02 percent of the shallow bottom of the State. In Fiscal Year 1975, a mere 10.52 acres in shallow wetlands were filled. Moreover, bulkhead construction has decreased from Fiscal year 1974, in which 13.5 miles of bulkhead was approved. In Fiscal Year 1975, only 10 miles were approved, one-third of which was for replacement purposes.

In Virginia, the rate of loss reached 450 acres annually during the period 1955-1969. That rate of despoliation was projected to increase to 600 acres annually for the period 1970-1974. In 1973, no more than 27.6 acres of wetlands for single family residences were filled, and less than 5 miles of shoreline were bulkheaded. 8/

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Due to indiscriminate alteration, Massachusetts lost 1,010 acres of coastal wetlands during the period 1954-1964. Subsequent to the enactment of the Massachusetts Wetlands Statute in 1969, a major reduction in the rate of loss has been achieved. 9/

Admittedly, not all states have current legislation. However, 32 states could be immediately considered for delegation under the Wright proposal, and 46 states have expressed a desire eventually to be considered for delegation. 10/ At least twenty-two states now control over 20 activities each which would involve the permanent disturbance of water bodies. 11/ Furthermore, of the 16 areas subject to the Corps current regulation, 8 states manage all 16; 8 states manage 15 areas; 2 manage 14 areas; 2 manage 13 areas and 9 states manage 12 areas. 12/ Dredge criteria have been listed by 22 states, while 20 have formulated criteria for fill materials. 13/ The laws of 18 states contain wetlands definition, 15 of which utilize the definition for regulatory purposes. 14/

These figures indicate that the states have the capability to afford adequate protection to both wetlands and other areas of concern. The figures also indicate the states' intention and willingness to protect their resources.

Existing state legislation not only affords adequate protection to wetlands, it also provides due process to citizens. Some states mandate the recordation of wetland

boundaries, thereby affording notice to current and future landowners. 15/ Our experience indicates that due process suffers severely when, for the favorable purpose of protecting our natural resources, our citizens are subjected to the dual jurisdiction of the state and federal government. This problem is exacerbated when one recalls that some states are divided among a plurality of Corps districts and divisions. The potentiality of divergent procedures and interpretation of regulations will prove formidable at best.

The provisions of S.2710 which include the Wright Amendment, afford ample latitude for the formulation of broad federal guidelines. The amendment returns the definition of "navigable waters" to its traditional meaning. 16/ Additionally, with the consent of the Governor, the Wright proposal affords sufficient flexibility to authorize Federal regulation of wetland areas adjacent to navigable waters, thereby including large areas of inland wetlands as well as all coastal wetlands. For other water bodies, the states maintain sole responsibility. For instance, the Wright proposal exempts activities involving normal farming and ranching activities as well as maintenance projects for dikes, dams, bridges and breakwaters, and also exempts the construction or maintenance of farm ponds and irrigation ditches. Many of these activities as we have noted above are regulated under state law, but it is imperative to understand that legislation is needed to provide an exemption for these activities. Although the Corps of

Engineers attempts to provide such an exemption in their current regulations for certain acricultural and silvicultural pursuits, the U.S. District Court in the District of Columbia ruled on March 24, 1975, that EPA could not exempt certain classes of point sources from the permit requirements of Section 402. Without legislation, therefore, this same rule would apply to Section 404 and these categories could not be exempted by the Corps of Engineers' regulations. The present broad definition of "navigable waters" would apply to Section 404 unless altered by legislation.

With a view toward efficiency, S.2710 authorizes the Corps to delegate control and management of the subject areas to those states which can meet established federal guidelines. Current state programs should not be trampled under the onslaught of an ever broadening federal bureaucracy. Adequate protection can be accomplished through the utilization of existing procedures which, having been formulated at a regional level, are more likely to reflect local needs as well as ecosystem requirements. This results in protective legislation which is economically, environmentally and politically sound.

In those situations where the respective states have undertaken the expense and effort of implementing comprehensive programs attuned to satisfy local needs, these efforts must be recognized at the Federal level. Otherwise, the concept of Jeffersonian democracy is lost. Delegating authority to issue permits to the states, as proposed, would recognize state competency and allow the states to meet the particular needs of their constituents.

In actuality, S.2710 represents the original intent of Congress in passing Section 404. As we have noted, the legislative history of the Act indicates that Congress never intended to create a federal wetlands or land use program. The intention was simply to restrict the unconfined dumping of dredged spoil. 17/

The preamble of the P.L. 92-500 (the Federal Water Pollution Control Act Amendments of 1972), 101b, states the policy of the Act. It states:

> It is the policy of the Congress to recognize preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

We ask nothing more now but that Congress carry out that policy. The passage of the Wright proposal will recognize the initiatives that the States have already taken to protect their vital natural resources, and hopefully will have the effect of influencing and encouraging future State efforts.

Thank you for this opportunity to testify.

Footnotes:

1. NRDC v. Train, 510 S.2d 692 (1975).

2. 373 F.Supp. 665 (1974).

3. State and Local Wetland Regulations, 58 V.L. Rev. 876 (1972), and Shively v. Bowlby, 152 U.S. 1 (1894).

4. Marks v. Whitney (California); Just v. Marionette County (Wisconsin); and Potomac Sand & Gravel v. Mandel (Maryland).

5. The following states have enacted laws regulating tidal and/or non-tidal wetland areas in addition to the regulations of waterways per se:
   Connecticut - GS 22a 1-45
   Delaware-7 Del. Code §§6601-6620 (1974 Rev.)
   Georgia-45 Ga. Code 136-147 (1972)
   Louisiana-12 LRS 51-1361-1365 (1972 pocket)
   Maine-38 MRSA 471-478 (Supp.1976)
   Maryland - Md.Ann.Code, Nat.Res.Art. 9-101 et seq. (Supp.1976)
   Massachusetts-130 Mass.Ann.L. 105 (Supp.1976); 131 Mass. Ann.L. 40, 40A (Supp.1976)
   Michigan-1955 Acts Ch.247 (Great Lakes Submerged Lands) 1972 Acts Ch. 346 (Inland Lakes), wetlands legis. pending
   Minnesota-105 MS.37-47.5 (1974)
   New Hampshire- RSA 483A:1 et seq. (Supp.1975); RSA 4:40a-d (1970 Rep.Vol.); RSA 4:40e (Supp.1975)
   New York-CLS §§24-0101 et seq. (Supp.1975); CLS §§25-0101 et seq. (1973)
   North Carolina-113 GSNC 229 (Supp.1975); 113a GSNC 1 et seq. 1975 Repl., (Supp.1975) Env. Policy
   Virginia - Va.Code Ann. §§62.1-13.1-13.20 (Supp.1976)
   Washington - RCW 90.58.030 et seq. (1975)
   Wisconsin - WS §59.97,62.23 STATS (1973)

6. Private wetlands projects are placed in three categories:
   1. Notification or permit by a State agency is not required for certain uses such as piers, boat houses, pilings, and tidal gates for agricultural drainage ditches;
   2. Notification to the State Department of Natural Resources is required for alterations or modifications customary and normal to conserve soil, vegetation, water, and fish and wildlife; and,
   3. A wetlands permit is required for all other activities in wetlands involving dredging and filling. Application for such permit is made to the Department of Natural Resources. Review and public hearing procedures comparable to those for State wetlands applications are followed with the Secretary of Natural Resources determining whether a permit should be issued, and, if approved, the conditions and terms of the permit.

Footnotes: (continued)

7. These permits in non-tidal waters include:
   1. Small ponds -- Each pond with a drainage area exceeding one square mile, or a surface area exceeding 12 acres, or a depth exceeding 15 feet.
   2. Waterway obstruction -- All dams and reservoirs with a drainage area exceeding 400 acres.
   3. Waterway construction -- Any change the course, current or cross-section of a non-tidal stream, with a drainage area exceeding 400 acres.
   4. Temporary waterway crossings -- Any placement of a pipe, culvert, bridge or ford across a stream to provide access to adjacent property.
   5. Maintenance and repair -- Any in-channel maintenance or channel improvement to remove sediment deposits or control erosion.

8. Coastal Wetlands of Virginia, Interim Report No. 3, Special Report No. 46 pp 35-36. Virginia Institute of Marine Science, Gloucester Point, Va. 23062 (Feb. 1974)

9. Massachusetts Estuarine Research and Protection Programs, pp 11-12, Dept. of Natural Resources, The Commonwealth of Massachusetts (March 1970).

10. Interim Summary Report on Threshold Tests of State Regulatory Programs, ICWP/SSAC Taskforce on Navigable Waters (June 30, 1976).

11. Water Information News Service, Vol. 1, No. 5 (June 14, 1976); The Institute of Rational Design, Wash., D.C. 20005.

12. Ibid.

13. Ibid.

14. Ibid.

15. See e.g., Maryland, Massachusetts and Connecticut and, to some extent, Delaware.

16. Although the reference to the "historical" test is omitted, obviously any stream, whether or not it was ever navigable, which could be rendered navigable by "reasonable improvement", is subject to the Wright proposal.

17. See Legislative History of the FWPCA Amendments of 1972, Vol. 1, p. 177, 236, 1392.

JAMES B. COULTER
SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401

LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

June 4, 1975

Chief of Engineers
Army Corps of Engineers
Forrestal Building
Washington, D.C. 20314

Attn: DAEN-CWO-N

Re: Proposed Regulations for Disposal of Dredge or Fill Material in Navigable Waters or Ocean Waters

Dear Sir:

The State of Maryland takes this opportunity to respond to the May 6, 1975 Public Notice issued by the Army Corps of Engineers concerning its proposed regulations for the issuance of permits for certain activities on navigable waters of the United States.

The advices and comments contained herewith have been coordinated with and represent the views of the various interested State agencies, specifically the Maryland Department of Natural Resources, the Maryland Department of State Planning, the Maryland Department of Transportation, and the office of the Attorney General.

As a preliminary matter, it is difficult to comprehend how the two U.S. District Court decisions of Natural Resources Defense Council v. Callaway, in the District Court for the District of Columbia, and the Middle District of Florida decision, U.S. v. Holland, can be sustained as the legal impetus and basis for the attempted expansion of the jurisdiction of the Army Corps of

Engineers under Section 404 of the 1972 Amendments. The Corps relies upon those two cases as its basis for the lateral expansion of its jurisdiction which would include specific areas beyond the mean high water mark. This departure from the traditional "navigational" water jurisdiction is all the more amazing considering the fact that the Corps has recently appealed the Callaway decision.

It is unnecessary at this stage to point out and argue the legal reasons why we believe these recent District Court determinations may render Section 404 of the 1972 Act unconstitutional as violative of the Interstate Commerce Clause, for that is a matter which is subject to the ultimate decision by the Supreme Court. Even should the District Court's definition of "navigable waters of the United States" be upheld, that fact would not mandate the extension of Army Corps' jurisdiction to every dredge and fill activity for every "natural and artificial " water in the United States, including "marshes, swamps, bogs, inland and coastal shallows contiguous to those waters regardless of whether these areas are regularly or only periodically inundated by water." It is fallacious to assume that the deposition of a fill material above the mean high water line would eventually find its way into the water below the high water mark especially since the purpose of its placement is to keep it separate.

The usage of the term "specified disposal sites" is inconsistent with the Corps of Engineers procedures as set out in the proposed regulations and the legislative history of this Section. Subsection(b) of Section 404 was not intended to create a procedure which is totally duplicative of ongoing State efforts. The Corps of Engineers program for all four alternatives will mimic the State of Maryland private and State wetland programs, the State of Maryland floodplain program, and the waterway construction program.

Neither the Callaway nor Holland decision discuss the legislative background for Section 404. It is obvious, however, that this Section was intended to control the unconfined deposition of dredged spoil into navigable waters. The conference report for the 1972 Water Pollution Control Act Amendments emphasizes this point:[1]

1. See Legislative History of the Water Pollution Control Act Amendments of 1972, Volume 1, page 177.

"A major difference between the Senate bill and the House amendment related to the issue of dredging. The Senate Committee had reported a bill which treated the disposal of dredged spoil like any other pollutant. Pursuant to an amendment accepted on the Senate floor, dredged spoil disposal was made subject to a different set of criteria to determine any environmental effects. The House bill not only established a different set of criteria to determine the environmental effects of dredged spoil disposal but also designated the Secretary of the Army rather than the Administrator of the Environmental Protection Agency as the permit issuing authority. The Conference agreement follows those aspects of the House bill which related to the Secretary of the Army's regulatory authority. However, consistent with the Senate provision, the Administrator of the Environmental Protection Agency has three clear responsibilities and authorities.

First, the Administrator has both responsibility and authority for failure to obtain a Section 404 permit or comply with the condition thereon. Section 309 authority is available because discharge of the "pollutant" dredge spoil without a permit or in violation of a permit would violate Section 301(a).

Second, the Environmental Protection Agency must determine whether or not a site to be used for the disposal of dredged spoil is acceptable when judged against the criteria established for fresh and ocean waters similar to that which is required under Section 403.

Third, prior to the issuance of any permit to dispose of spoil, the Administrator must determine that the material to be disposed of will not adversely affect municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife or recreational areas in the specific site. Should the Administrator so determine, no permit may issue."

In the House consideration of the Conference report, Representative O'Neill also spoke in terms of a dredged spoil disposal site:[2]

> "In making a determination to deny a permit under subsection 404(b), the Secretary is required to evaluate the effect of such denial on the economic impact on navigation and anchorage. This finding will override the discharge criteria or guidelines where there is no economically feasible alternative available to the specified disposal site. Also, the provision for removal of in-place toxic pollutants to section 115 is not limited to Great Lakes Harbors but is intended to apply to all critical port and harbor areas.'"

Senator Muskie in the Senate debate referred specifically to Army Corps of Engineers projects for dredged disposal:[3]

> "'I do not know of any limitations that apply to the Secretary of the Army in putting those projects together. I remember, as Governor of my State, that I was interested in dredging harbors, and I did not find the Corps of Engineers the fastest agency on earth in meeting requirements. If time limitations are going to be applied, let them also be applied to the Corps of Engineers.'"

Most of the conferees did not intend to create an entirely new bureaucracy, but focused upon determination of the unconfined dumping of dredge spoil.

> "The Conferees were uniquely aware of the process by which the dredge and fill permits are presently handled and did not wish to create a burdensome bureaucracy in light of the fact that a system to issue permits already existed. At the same time, the Committee did not believe there could be any justification for permitting the Secretary of the Army to make determination as to the environmental implications

2. Supra, Volume I, page 236
3. Supra, Volume II, page 1392

of either the site to be selected or the specific spoil to be disposed of in a site. Thus, the Conferees agreed that the Administrator of the Environmental Protection Agency should have the veto over the selection of the site for dredged spoil disposal and over any specific spoil to be disposed of in any selected site.

The decision is not duplicative or cumbersome because the permit application transmitted to the Administrator for review will set forth the site to be used and the content of the matter of the spoil to be disposed. The Conferees expect the Administrator to be expeditious in his determination as to whether a site is acceptable or if specific spoil material can be disposed of at such site.

At the same time, the Committee expects the Administrator and the Secretary to move expeditiously to end the process of dumping dredged spoil in water--to limit to the greatest extent possible the disposal of dredged spoil in the navigable inland waters of the United States including the Great Lakes--to identify land-based sites for the disposal of dredged spoil and, where land-based disposal is not feasible, to establish diked areas for such disposal.

All of these alternatives are available. The only justification for continuing to utilize open water disposal is the cost of alternatives. The Conferees believe that the economic argument alone is not sufficient to override the environmental requirements of fresh water lakes and streams. Therefore, early action should be taken by the Administrator to develop alternative sites and alternative methods of spoil disposal."[4]

The Department of Natural Resources now makes recommendations to the Board of Public Works relative to the issuance or denial of a permit to conduct an activity on State wetlands. The Board of Public Works is the final authority for the issuance or denial

4. Supra, Volume I, page 177

of the permit since by Constitutional fiat, it controls the disposition of all State property, and the land below mean high water mark belongs to the State in a proprietary sense as well as in a trustee capacity for the citizens of Maryland.

Additionally, the Department regulates activities on what are deemed to be private wetlands. These are areas above mean high water mark which are regularly or periodically inundated. These areas sustain aquatic vegetation; however, regular or periodic inundation relates only to that inundation caused by astronomical conditions. Maryland refers to no specific tidal plain, but contrary to the rather vague aquatic vegetation line and salt water vegetation line into the proposed regulation, we regulate those areas periodically inundated by non-meteorological tides. By factoring out meteorological conditions, we regulate viable aquatic marsh areas.

In order to accomplish the proper regulation of marsh areas, the Army Corps of Engineers would have to spend millions of dollars to properly delineate and provide proper notice to the property owners describing the nature of their land which is to be regulated. Without proper delineation, enforcement would be impossible.

In Maryland we have gone to extraordinary effort and expense to hopefully perfect a system which would identify those areas necessary to be regulated and preserved, providing notice to the local communities and property owners of our determinations, our guidelines and regulations which have evolved through the program.

Lo and behold, now the federal government is entering the scene and through the strokes of the judge's pen superimposes its will on an existing State prerogative which will totally duplicate an effective system. We do not believe that 33 USC Section 1344 (Section 404) was intended to accomplish that result.

Of the four alternative regulations presented, we find the general provisions of Alternative II least objectionable. Our principal reason for preferring Alternative II is the significant overlapping jurisdiction and duplication of regulatory programs that would exist at the federal, state and local levels if Alternatives I or III are adopted. Extended review periods and resultant frustration of applicants would result from the overlapping jurisdiction.

We prefer Alternative II over Alternative IV because Alternative II provides for concurrent review by federal and state regulatory agencies. The procedure identified under Alternative IV, whereby federal review does not commence until receipt of a State decision, would result in additional delays. Regardless of which jurisdictional definition is adopted, the Corps of Engineers should adopt procedural regulations which facilitate coordinated, concurrent review of applications when states administer regulatory programs with overlapping jurisdiction. Under each alternative we would urge the imposition of a one-year time constraint from date of application for Army Corps of Engineers final action; if Alternative II is chosen, we would suggest that final Corps action be accomplished within six months of State certifications.

We suggest definitional limitations on federal regulatory jurisdiction under the alternative regulations: (1) limit federal jurisdiction to streams or water bodies with a minimum contributing drainage area; for example, less than 100 square miles; and (2) exclude from federal jurisdiction dredged or fill material less than 1,000 cubic yards. We feel these limitations of federal jurisdiction will not compromise basic federal interests and will eliminate federal "red tape".

A number of terms require further definition. The definition of "ordinary high water mark" should be defined by flood frequency--such as the 100 year floodplain. The phrase "overriding national factors of the public interest" requires clarification. [See Alternative IV, Section (f)(ii)(b)]. There is no indication of what specific factors would override a favorable state determination. The proposed Regulation states that "a permit will generally be issued following the receipt of a favorable state determination". However, there are no indications of the basis for exception to the generalization.

In the Corps' proposed regulation, 209.120(d)(2)(c) defines the aquatic vegetation line as the line beyond which aquatic plants dependent upon periodic inundation for growth do not thrive. This definition would, therefore, include those upland areas which may, on occasion, be the recipients of a liquid spray. The term "thrive" appears to be subjective, for what one biologist would believe to be sufficient to be deemed to thrive, may not be sufficient for another biologist.

The usage of the term "salt water vegetation line" which is defined in the definitional Section (d)(2)(c) to mean the line beyond which plants subsist dependent on salinity conditions for

vigorous growth for survival do not thrive. What is "vigorous growth" again is a totally subjective determination. The general complaint which pertains to both of these definitions assumes that there is, in fact, a line and this just is not the case.

In closing we wish to reaffirm our general objection to the proposed regulations, i.e., that the federal attempt to usurp what has been a legitimate ongoing State prerogative will not enhance the environment, but will only result in added bureaucratic maneuverings. We implore the federal agencies to acknowledge existing State programs where the administrative machinery to protect areas beyond the traditional Corps' jurisdiction are already in existence.

Indeed, under the present Rivers and Harbors Act practices there is a limited overlap which would be corrected by utilizing joint hearings and by delegating decision making to the State level. Instead of adding another layer of bureaucracy, perhaps federal agencies and states can work together to simplify procedures carrying out the intent of both federal and state law to protect the environment while giving adequate consideration to the citizens that are being served.

I wish to note also that Attorney General Burch has authorized me to announce that he specifically concurs with our comments herein.

Sincerely,

JBC/WKR/jhh

James B. Coulter
Secretary

cc: Governor Mandel
Attorney General Burch
Senator Mathias
Senator Beall
Congressman Bauman
Congressman Byron
Congressman Gude
Congresswoman Holt
Congressman Long
Congressman Mitchell
Congressman Sarbanes
Congresswoman Spellman

Senator BAKER. Before we begin, Congressman Cleveland asked me to include his statement in the record at the appropriate place. I ask unanimous consent that it be included.

Senator RANDOLPH. Without objection, it will be carried in the appropriate place in the record.

[The statement follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., July 21, 1976.

Hon. HOWARD H. BAKER, Jr.,
Dirksen Senate Office Building,
Washington, D.C.

DEAR HOWARD: I understand that your Committee on Public Works has scheduled hearings for July 27 and 28 on water pollution control amendments addressing the controversy over dredge and fill regulation under section 404 of P.L. 92-500.

In this connection, I respectfully commend to your consideration an amendment co-authored by Bill Harsha and myself to meet the dual objectives of undiminished wetlands protection, and prevention of undue and excessively burdensome regulation of farming, forestry and other practices.

It would achieve these objectives by establishing statutory exemptions for routine farming and forestry practices, plus statutory authority for issuance of general permits for other activities whose scope or nature would involve more substantial environmental impact.

Thus, it would avoid the dangers of overreaction inherent in severe curtailment of the Corps of Engineers' jurisdiction under a separate, narrow definition of navigable waters exclusively for the purposes of section 404.

Concededly, our provision was prevented from coming to a vote by adoption of the Wright amendment to H.R. 9560 on June 3. However, if you have your staff review the floor debate, you will find it significant in two respects: (1) The problems fully addressed by the Cleveland-Harsha amendment were cited as arguments for the Wright amendment; (2) the Cleveland-Harsha amendment, available for scrutiny for a full week before House floor action, was not challenged by the floor managers of the Wright amendment, who had no option but to talk around it in terms of the Corps' regulations.

It is my hope that you will share my conviction that Cleveland-Harsha repreents a responsible compromise between existing law and the Wright amendment.

Sincerely,

JAMES C. CLEVELAND,
Member of Congress.

STATEMENT OF JAMES C. CLEVELAND, M.C.
COMMITTEE ON PUBLIC WORKS - U.S. SENATE
JULY 27, 1976

Mr. Chairman and Members of the Committee, as principal co-author of an amendment to resolve the conflict over wetlands protection and the proper exercise of Federal regulatory power, I welcome this opportunity to share my views with you.

This issue represents a classic challenge. How can we protect our wetlands without subjecting perhaps millions of Americans to excessive or burdensome intrusion of government into their lawful and legitimate pursuits?

The stakes are high. The issue concerns no less than the future of a vital and irreplaceable environmental resource, perhaps three-fourths of the wetlands in this country.

This is a priority objective and one we all share, but that fact in no way diminishes the difficulty of devising suitable means. These must represent a balanced, workable, practical and common-sense approach that takes into account the impact on other interests. And they must achieve acceptability and credibility to sustain support for our environmental protection efforts.

At the best of times this would be a difficult task. And these are not the best of times. Not with the climate of misinformation and emotion that has been generated over this and other areas of Federal regulatory activity. I understand it. I sympathize with it. And given the track record of the Federal bureaucracy I've been arm-wrestling with for nearly 14 years, to some extent I share it.

No citizen in his right mind can be blamed for concern when told that the United States Army Corps of Engineers is going to occupy his back 40, treating

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earth turned over by his plough as a dredge deposit, regulating any stream he can't jump across, requiring a permit to put in a stock pond.

No Member of Congress — least of all this one — is about to let that happen.

Now you and I know this is a myth. This was never intended by the Congress, it was never intended by the Administration and it was never intended by the environmental groups pressing for the broadest interpretation of section 404 of Public Law 92-500. But look how far that myth has brought us. It has brought us to the point where legislation is before us to chop back Federal authority and possibly leave extensive areas of wetlands at the mercy of the developers. Legislation is before us which could conceivably prevent Federal regulation of activities creating a health hazard for sources of the public's drinking water.

Those myths were slow to grow, in terms of translating initial propaganda against a Federal court decision into legislative proposals. They'll be even slower in dying.

But our basic responsibility is to deal not with myths but with facts, devising a reasonable compromise and then exercising our responsibility for political leadership by providing the public assurances that we've done the job and protected their interests.

In the process, we must assure that regulation does not go too far. But we must also make sure we don't cut back too far.

On this basis, I authored, with the support of William H. Harsha, Ranking Minority Member of your counterpart Committee in the House, an amendment to meet the legitimate concerns raised with respect to farming, forestry and other interests facing at least the threat if not the reality of over-regulation, excessive or burdensome regulation.

First, it would meet head-on many of the concerns raised by exempting by statute a number of routine, normal farming and forestry practices from any regulation whatsoever. Significantly, it picked up certain safeguards built into the Corps' regulations specifically and expressly to put to rest the concerns of t agricultural community. But we didn't stop there. We added to the enumerated statutory exemptions the construction and maintenance of farm and stock ponds and irrigation ditches. We also exempted the maintenance, although not new construction or extension, of irrigation ditches. The truth of the matter is that these statutory exemptions in themselves would go far toward meeting the concerns of farming and forestry interests. By virtue of being built into statutory law, they would be immune from court challenge or administrative reversal. So much for the spectre of the Feds in the farm yard.

Our amendment recognized too that other activities -- in addition to those exempted flat-out by statute -- should not be subjected to the burdensome requirement of individual permits issued by the Corps. Accordingly, we provide statutory authority for issuance of general permits to provide blanket coverage for activities constituting minimal environmental impact. We thus met the problem cited by the Majority of the House Committee, in its discussion of the Breaux amendment, to the effect that general permits now provided by regulation might not withstand court challenge.

At this juncture, I doubt whether anyone can identify with precision the reach of the Corps' regulatory jurisdiction conterplated by the regulations, particularly when Phase III goes into effect. But I submit that the Cleveland-Harsha approach counters this uncertainty by exempting -- before the fact -- a broad range of activities which are known, normal and routine. Plus which, the device of the general permit will have increasing applicability to activities of minimal environmental impact as Phase III goes into effect.

These benefits are not limited to activities covered either by statutory exemptions or general permits. While reducing the scope of individual permit activity, we would free the Corps from expense and diversion of manpower so that resources could be devoted to processing of individual permits for more environmentally significant practices and reducing the delays to the individual applicant.

So what happened to our amendment?

It was published in the Record and highlighted by letter to all House Members a full week before the matter came to the floor for debate and action. Thus it was made public and available for scrutiny and challenge. It was supported by all major environmental organizations and the White House, the latter after exhaustive review of the options.

During debate, floor opposition was virtually negligible. To the distinct credit of my friend Jim Wright and Committee colleagues supporting his substitute, they did not denigrate our amendment but instead focused on the court decision in question and the Corps' regulations. Indeed, in the Wright amendment they picked up the principles of statutory exemptions and general permits -- though in excessively broad terms. And the problems specifically addressed by

the Cleveland-Harsha amendment were cited in support of the Wright amendment.

Accordingly, the fact that the Wright amendment -- with its surface similarities to Cleveland-Harsha and promotion as a remedy to the same problems -- was adopted as a substitute presented first in no way discredits our amendment.

Today as on the day it was offered, it represents a responsible and reasonable compromise, avoiding the pitfalls of over-reaction to a problem. It does not redefine the definition of navigable water. Specifically, it thus rejects the approach of curbing the jurisdiction of the Corps and creating an inconsistency of statutory scope within the total framework of P.L. 92-500. And it does not rely for its appeal on any illusory notions with respect to State capability to assume responsibility for the program.

Just one final point on State delegation. As a matter of practicality as well as philosophy, I am personally committed to the principle of encouraging and enabling the states to assert the maximum authority and responsibility of which they are capable in the achievement of public policy objectives.

As Members of this Committee are well aware, that's not just a line I came up with for this occasion, in that I authored the State Certification amendment to the Title II construction grants program. That experience has demonstrated as nothing else could the fact that when we get into the field of Federal-State relations we can't legislate by label. In this particular case, that provision had the benefit of exhaustive scrutiny by the Public Works Investigations Subcommittee, and extensive consultation with the Environmental Protection Agency and -- most important -- with the water pollution control administrators in the various states themselves. Drafts and re-drafts were considered, to the point where the final product specifically enumerated the

functions to be delegated, provided funding to do the job, and assured judicial review with respect to the Administrator's determination of state capability to assume delegated powers and responsibilities.

Similarly, I would have no objection to having this principle embodied in the Cleveland-Harsha amendment, with the caveat that standards and criteria be spelled out and Federal oversight assured. That, I submit, would be a far cry from the Wright amendment in its current form. Rather than the Wright amendment, a delegation modeled on the 402 discharge permit system would be far preferable.

In urging your consideration of the Cleveland-Harsha approach, I would suggest that I have some credentials in addition to authorship of State Certification. And I'm not talking about membership on the National Commission on Water Quality. What I am talking about is the fact that as much as any Member of the House, I have been outspoken in my opposition to the excesses of the Federal bureaucracy -- both the reach of regulation and the manner of its exercise.

I have consistently advocated elimination or reduction of red tape, citing damage to vital, job-creating programs in housing, water pollution control and highways. Particularly with respect to highways and I wear the scars to prove it. In the same vein, I have been leery of Federal land-use controls, particularly any provision that would encourage states to override local land-use determinations. And I have consistently supported the legitimate interests of the forestry industry in my state, a large portion of which is accounted for by the White Mountain National Forest, by opposing ill-considered wilderness proposals.

Against this background, I urge you to consider the approach authored by Bill Harsha and myself, and hope you will share the conviction that this approach -- the principles it embodies -- goes far enough but not too far, and will do the job.

Senator RANDOLPH. There are many other members of the Congress and those who head certain organizations and groups who wish to file statements. They will be welcome as a part of this record. I want to provide the opportunity now for others to participate, because we want these hearings to be the very fullest from the standpoint of receiving information that will help us in the determination of these matters.

Senator Dole?

STATEMENT OF HON. BOB DOLE, U.S. SENATOR FROM THE STATE OF KANSAS

Senator DOLE. Thank you, Mr. Chairman and members of the committee. I appreciate this opportunity to appear and speak briefly to the committee in this extraordinary evening session.

I think Senator Muskie has outlined the problem. I think he may have his finger on a possible solution.

I would like to set forth my comments as quickly as I can, recognizing that you have some very distinguished witnesses and it is late in the day.

First of all, I think it has been suggested by Senator Hart and Senator Muskie and Senator Baker and the chairman, of course, and Senator Domenici, and probably others who appear here, that there is a continuing concern among farmers and cattlemen and highway and housing contractors and others regarding the dredge and fill permit program administered by the Army Corps of Engineers.

I speak, I think, for most of those people, and it is a reassuring fact that the committee is having the hearings, as set forth by the chairman.

I don't think the problem is going to go away. I think this is one that does need some attention right now.

I was privileged to be a member of this committee when the landmark Water Pollution Control Act amendments legislation was considered in 1971–72. It was, and is, a credit to the environmental consciousness of Congress and represented valuable progress toward protecting the purity of our Nation's waters.

But it was not a perfect measure; nor were its provisions sacrosanct. We have all learned a great deal about the weaknesses and the shortcomings of that measure's water pollution control programs during the past 5 years.

We have witnessed, particularly in rural areas, a tendency of regulatory agencies, whether as OSHA or the Corps of Engineers, to go beyond what the intention of the Congress was. We take a look at the Federal program under OSHA and look at the safety of beef cattle pamphlet costing several thousands of dollars to the farmer, which is not only an insult to his intelligence but a wasteful expenditure of funds. This may fall somewhere in that area.

Section 404 of the 1972 act gives the Army Corps of Engineers primary authority to regulate dredge and fill operations in navigable waters of the United States.

Historically, the corps' duties have related to preventing navigational obstructions and facilitating interstate commerce. The corps' expanded powers under section 404, however, resulted from a broader concern for environmental protection.

The matter of protection, per se, is not at issue. Instead, it is the mechanism and the extent of jurisdiction reflected in the administration of section 404 that is justifiably challenged today.

Until congressional intent is clarified, there will be challenges and counterchallenges to the corps' regulatory authority.

Congressional intent as reflected in the language of section 404 was admittedly vague and unspecific with respect to the issues of Federal wetlands protection, tributary protection, and of defining dredging and filling activities.

A 1974 district court decision in Florida (*United States* vs. *Holland*) suggested that:

> Even though it seems certain that Congress sought to broaden Federal jurisdiction under the act, it did so in a manner that appears calculated to force courts to engage in verbal acrobatics.

Subsequent attention to section 404 in scattered judicial decisions has led to interpretive gyrations that bear questionable relationship to congressional language.

What is more, confusion and uncertainty about the scope of section 404 in the wake of the corps' regulations of last July result from the haziness of guidelines for distinguishing between legal and illegal conduct.

Just as the farmer needs clear-cut guidelines addressed to his specific daily activities, so does the Corps of Engineers require an easily definable scope of authority to facilitate permit processing.

For these reasons, Congress needs to take positive steps now to clarify the proper scope of the section 404 permit program and to resolve jurisdictional questions.

In my opinion, House approval of the Wright Amendment to H.R. 9560—now S. 2710—last month was an appropriate step in the right direction. I think it is now up to the Senate to act, and to act expeditiously.

In our review and our visits with farmers and others who have an interest, we find there are at least two very basic issues that must be resolved at this time by the Congress. What specific types of normal and routine activities—as practiced by farming, forestry, mining, and construction industries—are to be considered dredging or filling for the purposes of the permit program? To what extent is Federal regulation of small waters desirable or necessary to achieve the purposes of the 1972 Water Pollution Control Act?

These two questions strike at the very heart of the controversy that has engulfed the section 404 provision since its enactment.

A practical and definitive resolution of both issues at this time by Congress would, I believe, largely eliminate the distress caused by undue Federal interference into routine aspects of private business.

Following the district court decision in *NRDC* vs. *Calloway*, opposition to the section 404 permit program arose from agricultural and forestry interests who feared an expanded program would interfere with normal daily activities near inland waters and on wetland areas, such as plowing, digging irrigation ditches, et cetera.

There is certainly no obvious language in the 1972 act to arouse such concern, but the imprecise definitions of dredging and filling, and the court's order covering lakes, ponds, tributaries, headwaters, and adjacent wetlands, made such regulation of normal farming acts a very real possibility.

The anticipated delay, expense, and general burden of imposing such permit requirements on farming, forestry, and construction industries is mind-boggling. From a logistical standpoint, the Corps of Engineers is certainly not presently capable—in terms of manpower or money—of administering comprehensive oversight over routine agricultural discharges or forestry functions.

Furthermore, it is doubtful that the Corps possesses the technical and scientific competence necessary for such a regulatory permit program.

In view of these considerations, I believe the Corps of Engineers made a wise gesture when it included exemption provisions for normal farming, silviculture, and ranching activities in its July 1975 regulations.

But those provisions did not eliminate concern, because they are inherently weak. In the first place, agency regulations do not carry the definitive character of public law; the Corps' exemptions do not foreclose the possibility of later court challenges based on the 1972 law.

In the second place, the exemption provisions do not completely eliminate all routine agricultural activities. A sample list of exclusions contained in the regulations do not refer to such practices as dredging for irrigation supply or filling in farm roads, fords, and bridges; and language concerning erosion prevention devices such as ripraps and groins is ambiguous. These common agricultural practices might or might not be judged normal by the corps at the time of permit application.

Similarly, I understand that the beef cattle industry is concerned about potential permit requirements for terracing, digging irrigation canals and livestock ponds, and for cleaning out lagoons. Normal forestry activities including construction of culverts, drainage ditches, and temporary roadways could be subject to 404 regulation.

The Kansas Department of Transportation advises me that routine cleaning of culverts, repair and replacement of bridge abutments and piers, and even debris clearance could possibly require a permit under current Corps regulations.

I do not believe that Congress intended for such activities to be regulated by the Federal Government. For these reasons, permit exemptions for normal activities of private business need the full force of congressional clarification and public law.

A second and final issue that should be given close and careful consideration is the question of whether or not expanded oversight jurisdiction should be vested in a Federal agency such as the Corps of Engineers.

I submit that in most cases, State government can more readily adapt and more specifically direct wetlands regulation to meet the particular geographic needs of the State.

Furthermore, because water and wetlands use has been traditionally reserved to State government, the entire structure of water rights and land use administration would be seriously jeopardized, if not destroyed, throughout the Nation by expanded Federal oversight.

State control of wetlands located in tidal areas is firmly rooted both in common law and statutory bases. Even though the expanded 404 Corps regulations allow for an advisory role for the States, all decisionmaking powers for issuance of a permit are retained by the Corps.

Clearly, this involves a duplication of State and Federal resources where the State has already devised an adequate water and wetlands regulation system.

Previous environmental legislation, such as the Coastal Zone Management Protection Act and Solid Waste Control Act, have given the States primary responsibility for carrying out the purposes of the protective legislation.

Indeed, such Federal environmental regulation should be in cooperation with, and not in substitution for, State regulation. There is no reason why State permit programs which meet uniform Federal standards cannot effectively achieve the purposes of section 404.

Delegation of the authority to grant permits to States which have federally sanctioned permit programs would be a big plus in terms of practical and expeditious implementation of this program. A similar approach under section 402 of the 1972 act provides a workable and commendable model.

Of course, not all States at present have the capability to operate their own permit programs. But several States have had such protection programs in operation for years.

Consequently, it would be advisable for the language of section 404 to contain delegation authority to allow State and local authorities—where capable and willing—to regulate dredging and filling activities on their own navigable waters and adjacent wetlands.

Both the Wright amendment which recently passed the House and the legislation I introduced in June of 1975—Senate bill S. 1843—contain appropriate language for delegation of this regulatory authority.

I would urge this committee to recommend such legislative amendment for a more workable and universally acceptable permit program. Certainly there is no overwhelming reason why the Corps, and the Corps alone—or, for that matter, the Federal Government—must in all instances have direct oversight and veto authority over local dredging and filling activities.

Beyond this, I would only add that a very fundamental question lingers about the proper definition of navigable waters. Of course, this is an issue that relates to other provisions in the 1972 act as well.

The courts have interpreted the term to encompass most waters in the United States, and this has spread the scope of this Federal program far beyond traditional boundaries. We all understand the importance of regulating genuine polluting activities on tributaries that feed into larger waters. But whether the Federal Government should be involved in that regulation, whether routine agricultural activities fit the description of polluting sources, and whether nonnavigable water bodies wholly contained upon private property should be subject to oversight are all questions that must eventually, I think, be resolved by Congress.

If we legislate in a thoughtful and practical frame of mind, I have no doubt that sincere environmental protection efforts can proceed without undue encumbrance, while private business can proceed without undue regulation.

Mr. Chairman, I thank you for the opportunity to raise these points. I would just say in conclusion that there are really three principal issues: the question of exemption for normal and routine

dredging and filling activities, the question of turning regulatory authority over to the State and local governments, and restricted definition of navigable waters.

Senator RANDOLPH. Thank you very much, Senator Dole.

Senator Muskie?

Senator MUSKIE. It was an excellent statement. It exposed the issues. It has covered every problem that I have heard about in the mails. I compliment Senator Dole for presenting the problem so clearly. The solution may not be that clear.

Senator DOLE. I leave the solution to the committee. I will just present the problem.

Senator RANDOLPH. Senator Baker?

Senator BAKER. Mr. Chairman, I have no questions. It is just the old business: That is a solution, what is the problem?

Senator DOLE. Right.

Senator BAKER. I join in Senator Muskie's valuation of the statement to be very helpful to the committee. I am particularly pleased with that portion of your statement on page 5 which tends to focus on the entire issue, I believe.

It has to do with the question of:

> What specific types of normal and routine activities—as practiced by farming, forestry, mining, and construction industries—are to be considered dredging or filling for the purposes of the permit program? To what extent is Federal regulation of small waters desirable or necessary to achieve the purposes of the 1972 Water Pollution Control Act?

As soon as we reconcile our views on those two questions, we will be in a position to propose a solution to that. I thank you, Senator.

Senator RANDOLPH. Thank you, Senator Baker.

Senator Burdick?

Senator BURDICK. I want to thank you for your testimony, too, Senator; but I assume Senate bill 1843 is your solution.

Senator DOLE. It is a solution. It may not be the only solution. I haven't discussed it with Senator Schweiker.

Senator RANDOLPH. Did you have further political comment?

Senator Domenici?

Senator DOMENICI. I can't top that one, Mr. Chairman. I was thinking, though, since you were here when we drew this elusive law, you ought to stick around and help us.

Senator DOLE. I think that is one of the days I stepped out of the room.

Senator RANDOLPH. Senator Hart?

Senator HART. No questions.

Senator DOLE. Thank you very much, Mr. Chairman.

Senator RANDOLPH. Senator Dole, you understand agriculture do you not?

Senator DOLE. I hope so. I convinced voters of that a few times.

Senator RANDOLPH. You worked on a farm?

Senator DOLE. My grandfather had a farm, and I worked on that farm and I worked on other farms. Without the help of the Corps of Engineers, we were able to make it.

Senator RANDOLPH. I think that we had better quit. Thank you.

We have, on occasion, loosely used the word "distinguished" on the Hill. I shall use it now. But certainly the members of this panel—

Russell Train, Nathaniel Reed, Victor Veysey, and Peter Taft—are men of stature. They are men who have certain authority and leadership which we all recognize. I am sure that their testimony will bring forth colloquy which will help to bring out the points of view they present.

Would you gentlemen please come forward as a panel?

Thank you, gentlemen.

Off the record.

[Discussion off the record.]

Senator RANDOLPH. The members of the panel, as I have indicated, are men of stature and leadership. Mr. Train, would you proceed to give us your thinking as the Administrator of the Environmental Protection Agency?

STATEMENTS OF RUSSELL TRAIN, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY; NATHANIEL REED, ASSISTANT SECRETARY OF THE INTERIOR FOR FISH AND WILDLIFE AND PARKS; VICTOR VEYSEY, ASSISTANT SECRETARY OF ARMY FOR CIVIL WORKS; AND PETER TAFT, ASSISTANT ATTORNEY GENERAL FOR LAND AND NATURAL RESOURCES

Mr. TRAIN. Thank you, Mr. Chairman and members of the committee. I have what at least seems to me in comparison to some of the other statements a relatively short statement. Since I come first, I propose to read the full statement, with your permission. Since Governor Mandel is not appearing, perhaps I can use part of his time, although we may not say the same thing.

I am here today to discuss with you our continuing efforts to achieve the goals of the Federal Water Pollution Control Act in the context of one specific program—the regulation of discharges of dredged or fill material under section 404.

Needless to say, I am just delighted that this committee has called this hearing. I think that this has been long overdue. The issues are complex. They need resolution. I think the fact that the committee is willing to gather at this late hour to take up this issue is just extraordinarily commendable. The amount of interest which is evident in the size of the audience here I think speaks to the importance of the issue in the public mind.

With the passage of the 1972 amendments to the FWPCA, our fundamental objective became the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters.

Full implementation of the 404 decisionmaking process is imperative if we are to achieve that goal. Section 404 represents an essential tool for moderating the degradation, and sometimes the irrevocable destruction, of aquatic areas that naturally control the quality of water, including those vital areas of shallow water known as wetlands.

I might add that if we did not have those wetlands, the course of abating pollution in this country by industry and municipalities would be enormously increased because of the additional costs that would be required by the technology to take the place of what nature has provided us.

We welcome the opportunity to participate in dispelling the widespread misinformation that continues to impede constructive debate on this program.

I will direct my brief remarks to three concerns: First, the origin of the program and the much talked about concept of "broad jurisdiction over water"; second, a few of the ecological realities that compel Federal jurisdiction over water; and finally, I will highlight the encouraging first year of implementing a program that is designed to overregulation.

The Federal Water Pollution Control Act places the responsibility upon EPA to administer a permit program for industrial and municipal discharges. The act reserves to the Corps of Engineers a separate permit program under section 404 for discharges of dredged or fill material into the Nation's waters.

The statutory language authorizing the 404 program requires the cooperation of the corps and EPA to insure that discharges of dregded material and fill material will not have unacceptable adverse effects on municipal water supplies, shellfish beds, fisheries, wildlife, and recreation.

A fundamental element of the Water Act is broad jurisdiction over water for pollution control purposes. Several Federal courts have endorsed the wisdom, and constitutionality, of this committee's observation that:

> Water moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source. Therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries.

In affirming the constitutionality of the statute's jurisdiction over all the Nation's waters in the Ashland Oil opinion, the Court of Appeals for the Sixth Circuit observed:

> We believe that the language of the Federal Water Pollution Control Act and its legislative history show that the United States Congress was convinced that uncontrolled pollution of the Nation's waterways is a threat to the health and welfare of the country, as well as a threat to its interstate commerce.
>
> Obviously water pollution is a health threat to the water supply of the Nation. It endangers our agriculture by rendering water unfit for irrigation. It can end the public use and enjoyment of our magnificient rivers and lakes for fishing, for boating, and for swimming. These health and welfare concerns are, of course, proper subjects for Congressional attention because of their many impacts upon interstate commerce generally. (*United States* v. *Ashland Oil*, 7 ERC 1114, 1120 (6th Cir., 1974).)

The court recognized that comprehensive jurisdiction is necessary not only to protect the natural environment but also to avoid creating unfair competition. Unless Federal jurisdiction is uniformly implemented for all waters, dischargers located on nonnavigable tributaries upstream from the larger rivers and estuaries would not be required to comply with the same procedural and substantive standards imposed upon their downstream competitors.

Thus, artificially limiting the jurisdiction can create a considerable competitive disadvantage for certain discharges.

Let me add at this point, Mr. Chairman, that the administration supports the approach of maintaining broad jurisdiction under this program, as set forth under the so-called Cleveland-Harsha amendment offered in the other House, with appropriate amendments.

I believe Mr. Veysey will be prepared to go into more detail on this. But let me just mention in passing that such amendments should provide for delegation to the States under carefully drawn criteria. They should provide for authorization to the Corps of Engineers to exclude insignificant activities. They should insure that permits will only be denied on the basis of adverse impacts on fish and wildlife or other water quality concerns. They should exempt inuse agricultural or silvicultural activities, as would be carefully defined in detail in legislative language.

Mr. Chairman, continued applicability of the 404 program to our Nation's waters is essential if we are to moderate the two most significant types of harm caused by dredged or fill material.

First, just as water uses are degraded by industrial and municipal wastes, adverse effects also occur from dredged and fill materials that contain a wide range of pollutants, including toxic substances.

An initial screening of sediments from over 700 harbor and waterway locations showed that sediments in over half of the locations contained a significant pollutant load. Pollutants identified in the sampling included lead, arsenic, cyanide, PCB's, mercury, and cadmium.

Contaminated materials threaten water supplies, fisheries and other beneficial water uses unless carefully managed. The corps and EPA are currently using the 404 decisionmaking process to assess the risk of dredging James River sediments that are contaminated with Kepone.

It is important to understand that toxic substances threaten the aquatic environment when discharged into small streams or into major waterways. Similarly, pollutants are available to degrade water and attendant biota when discharged in marshes and swamps, both below and above the mean and ordinary high water marks.

Second, unlike most industrial and municipal pollution, dredged and fill material can physically destroy essential parts of the aquatic system, including swamps, marshes, submerged grass flats and shellfish beds. These critical aquatic areas are essential to many water uses, not the least of which is a viable commercial and sports fishery.

Wetlands serve as spawning and nursery areas while providing natural control of organic and inorganic nutrient transfers that dictate quantity and quality of life in the water. The declining availability of swamps, marshes, and free-flowing streams to assimilate pollution from point and nonpoint sources will greatly increase the dollar and energy costs of maintaining desirable water uses.

For example, discharge of fill material into certain swamps in New York and New Jersey can affect the quantity and quality of water seeping into the aquifers from which many communities draw their water supply, thereby naturally causing increased treatment costs.

We testified in the July 1975 hearings before the House Subcommittee on Water Resources that the Army Corps of Engineers and EPA had agreed to cooperate in establishing a joint program.

Shortly thereafter, interim final regulations were promulgated by the corps on July 25, 1975. These regulations were followed by the publication of interim final guidelines by EPA on September 5, 1975.

Together the regulations and guidelines establish a manageable program that focuses the decisionmaking process on significant threats to aquatic areas while avoiding unnecessary regulation of minor activities.

The first year of implementation of the 404 program ended just last Sunday. In view of the attention that has been given to this program in recent months and the misunderstandings that have been voiced by various interest groups, I want to discuss briefly the key features of the program that are preventing overregulation.

First, comprehensive jurisdiction is, we believe, essential for the protection of the aquatic environment. The once seemingly separable types of aquatic systems are, we now know, interrealted and interdependent. We cannot expect to preserve the remaining qualities of our water resources without providing appropriate protection for the entire resource.

Moreover, this broad geographical jurisdiction should reduce the confusion and expense inherent in earlier jurisdictional approaches that established artificial and often arbitrary boundaries that included only part of some bodies of water.

For example, the old jurisdictional mean high water line excluded one-half to one-third of most coastal marshes, thus possibly allowing destruction of an essential element of the aquatic system, depending on the degree of control exercised by the States.

Today this problem has been eliminated. The location of a coastal marsh by using the aquatic vegetation line accurately identifies most marsh areas. One Florida developer informed us that with the new approach, the location of coastal marshes is less time consuming and less expensive. No longer is it necessary to expend thousands of dollars for tide experts and surveyors to establish the exact mean high water mark as required by the old Corps program.

Second, let me emphasize that while the geographical jurisdiction of the program is broad, hundreds of activities have been identified which do not require permits. The term "fill material" has been defined so as clearly to exclude normal farming, silvictulure and ranching activities such as plowing, cultivating, seeding, and harvesting. Maintenance of existing fill has also been excluded.

We hope this hearing will help us reassure the public that many activities simply do not require permits.

Third, the 404 program will use general permits to the maximum extent possible to authorize categories of discharge that cause only minimal harm to water quality.

Thus, the need for dischargers to apply for individual permits is eliminated except in those instances involving environmentally significant activities. Several districts have already issued general permits to authorize erosion control bulkhead and fill and for fills associated with highways and log roads.

Several of our regions have reported a sharp decrease in the number of public notices for permits for insignificant activities under both the 404 program and the 1899 Rivers and Harbors Act.

Fourth, phased implementation of the broad jurisdiction over water has provided a measure of moderation and flexibility we all see as necessary to a reasonable program. A commendable management effort by the Corps of Engineers has already resulted in improved coordination with EPA, other Federal and State agencies, and the public.

I would like to emphasize, I think the Corps has done an outstanding job in moving this program forward and developing reasonable and manageable regulations. You certainly can explore that more fully

with them. But I want this committee to know that EPA is strongly supportive of the Corps' effort in this regard and believe that they really have done an outstanding job.

Finally, considerable effort has been made in developing a 404 program that would directly involve the States in the decisionmaking process. Several States with existing permit programs to regulate the same types of activities that are regulated under section 404 are taking advantage of the opportunity to participate in the joint processing of Federal-State permit applications.

Iowa, Michigan, and Maryland are notable examples. I believe this opportunity to establish joint programs will encourage needed improvement in many States that have not yet adequately addressed the environmental problems caused by discharging dredged or fill material into the water environment.

To conclude my remarks, let me emphasize that the protection of water quality must encompass the protection of the interior wetlands and smaller streams.

In this regard, I should remind you that through the International Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter and our own Ocean Dumping Act of 1972, the United States has established both international and domestic programs to protect the oceans from uncontrolled discharges of sludges and dredged material.

The criteria for permitting the ocean dumping of dredged or fill material are, by design, consistent and very similar to those issued under section 404(b). Without an appropriate and effective program under section 404, only ocean dumping of dredged material will be closely regulated while many of our more productive and more limited inland water resources will be unprotected from both chemical and physical degradation.

The Department of the Interior has estimated that almost half of the wetlands which originally contributed to aquatic resources of our Nation have already been lost through draining, dredging, or filling.

Even with numerous programs aimed at their preservation, in excess of 25,000 acres of prime wetlands are lost each year. Our most productive aquatic systems have already been drastically reduced from their original 127 million acres to less than 80 million acres.

As you know, wetlands are a priceless, multiuse resource. They perform the following services:

One: High yield food source for aquatic animals;

Two: Spawning and nursery areas for commercial and sports fish;

Three: Natural treatment of waterborne and airborne pollutants;

Four: Recharge of ground water for water supply;

Five: Natural protection from floods and storms; and

Six: Essential nesting and wintering areas for waterfowl.

We should be mindful of the fact that when these areas are polluted out of existence, we will have lost the very valuable free service of nature; and if toxic-laden dredged or fill material is discharged into wetlands, we risk poisoning the very foundation of our aquatic system.

I must caution against expedient short-term considerations relating to the section 404 program, however compelling they may seem, in view of the long-term consequences associated with any such actions. What we do now affects not only the next decade but our next generation, and those that follow.

I mentioned at the beginning, Mr. Chairman, that there has been a lot of misinformation about this program. We believe the program has been managed in a way to avoid the kind of problems that you rightly are concerned about and that many members of the public are concerned about.

I am also concerned that misinformation and misguided advice has been put forward not on behalf of those frequently referred to, such as small farmers who we believe are totally excluded from the scope of these regulations, but by those who wish to dredge and fill and develop wetlands to make a fast buck, if you will, at the expense of a long-term public interest.

I make that statement with full concern for the complexity of the problem. But I think that the wetland resource of this Nation is so vitally important to all of us that I would urge and beg this committee and the Congress to legislate in this area with the utmost care.

Again I commend the committee for conducting this hearing.

Senator RANDOLPH. Thank you very much, Administrator Train. If agreeable to the members of the committee, I would suggest that we have our four panelists give their presentation and then we go to the questioning.

Senator MUSKIE. Could I ask one question? I agree with that, Mr. Chairman. Could I ask one question simply to fill in on the history of the thing so it is clear?

Senator RANDOLPH. Yes.

Senator MUSKIE. The regulations which you have described, Mr. Train, are those issued a year ago this summer. What created the initial storm in section 404 was the policies that the Corps of Engineers announced in a press release issued after the court opinion; is that not so?

Mr. TRAIN. I believe that is correct. Mr. Veysey should answer that.

Senator MUSKIE. In other words, what created the initial storm of public opinion was a policy announced before you moved in, or somebody moved in, to redefine the policy in a more careful way you have described.

If the Corps had not, in other words, moved as it had with what I thought was distortion of legislative intent and created all of the reaction, you would not have had to move in as sort of the wet nurse to try to bring the storm under control.

That is the context in which your regulations were issued, as I recall. You may not use the rhetoric that I just used, but isn't it a fact——

Mr. TRAIN. I think I will ask Mr. Veysey to respond to the question.

Senator MUSKIE. Isn't it a fact that the public relations problem which has brought all these people into this room at a late hour in the night, stirred up an issue by a release issued by the Corps of Engineers following the court opinion, before the careful definition of the regulations which you have described?

I wrote you a letter myself in that interim.

Mr. TRAIN. I remember practically the day that was issued. I was before another Senate committee on another matter. I was immediately confronted. In fact, I hadn't read the release at that time. And there was no question that the release contributed to a climate of public concern over the issue.

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Senator MUSKIE. It didn't contribute; it created.

Mr. TRAIN. But I would say that the Corps of Engineers was by no means the only instrument for increasing public concern over the program.

Senator MUSKIE. I understand the Secretary of Agriculture participated.

Mr. TRAIN. Yes.

Senator MUSKIE. The Secretary of Agriculture, I think, cooperated very well with the Corps of Engineers. I just wanted to make that point because after your description, it sounded as though the problem had started with the regulations, where it actually started before.

If it had started with the regulations, conceivably there might not be a problem.

But the impression created by the release of the Army Engineers is still creating ripple effects in every State that is affected by the problem, and I suspect many of the refinements of your regulations have not yet caught up with those ripple effects to help abate the storm. That is my only point.

Mr. TRAIN. I must say I suspect that those who feel that their interests are threatened by 404 would have created a public storm over this issue, irrespective of any possible contribution from that press release.

Senator MUSKIE. We will make our independent judgments about that.

Mr. TRAIN. I wouldn't want to point a finger to the Congress on that. In any event, that is water over the dam.

Senator MUSKIE. Was the dam built with a permit?

Mr. TRAIN. I think with that I shall yield.

STATEMENT OF VICTOR VEYSEY, ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS

Mr. VEYSEY. Mr. Chairman, if I might, I would like to respond in part to Senator Muskie's question, which I think is an appropriate one.

Since there is no part of that included in my testimony, I welcome the opportunity to insert it at this point. It is true, it is a sad fact, that sometime in the early hours on a long weekend when folks in the Corps of Engineers had been struggling with this problem, perhaps too long, a very misguided and very unfortunate press release was issued which said, if read very carefully, that under this law, many things might happen. That was before the regulations were written.

In a sense, it was true that a lot of things might happen, although there was no intent on the part of the Army Corps of Engineers or EPA to let any of those things happen. But the damage was done, as you point out so correctly. That stirred or perhaps struck a sympathetic note—I don't know which—but anyway, the release was issued from the Public Information Office of the Corps of Engineers. I guess we will never be permitted to forget that.

Senator MUSKIE. Neither will we.

Mr. VEYSEY. I regret very much that it did happen. After that time we took a rather firm grip on the situation.

I will say that with magnificant cooperation from Russ Train and all of his people at EPA, and the Interior and the Justice Depart-

ments, I think we have brought order out of what appeared to be a very chaotic situation at that point in time.

Senator RANDOLPH. Press releases, you know, have a way of causing trouble not only for bureaucrats but also Senators. I want to let you know it is not confined to the so-called administrative part of the Government.

I think that perhaps although the witness list was arranged in a certain order, that the Assistant Secretary of Army for Civil Works, Mr. Veysey, could well be heard at this time as we move from the Environmental Protection Agency to your organization.

Will you proceed, Mr. Secretary?

Mr. VEYSEY. Thank you very much, Mr. Chairman and distinguished members of the committee. My name is Victor V. Veysey. I am Assistant Secretary of the Army for Civil Works.

I am very pleased to be able today to appear at the invitation of the committee to testify in behalf of the administration on section 404 of Public Law 92–500.

I consider it a particular pleasure to be at this witness table with the distinguished colleagues on my right and my left. I want to say again to this committee that there has been remarkable and very great cooperation among the agencies in the administration in trying in a very busy year and a half to make a responsible, reasonable program out of what had some aspects of being a maverick at one point in time.

The Justice Department has been of great help to us; particularly the distinguished Mr. Peter Taft. Russell Train, Administrator of EPA, has guided us so much with the guidelines for the program; and Assistant Secretary Nathaniel Reed from Interior with their important input with respect to fish and wildlife matters.

With me this evening to help with the testimony and answering the questions I have immediately behind me Brig. Gen. Drake Wilson, Deputy Director for Civil Works of the Corps of Engineers; and Mr. Brian O'Neill who is Assistant General Counsel for the Department of the Army.

I can tell that we are going on some very interesting excursions here this evening. Already we have been with Russ Train through the polluted waters. I expect Nat Reed is going to lead us by the hand through the bogs and the swamps. And Peter Taft will try to take us through the treacherous shoals of the law.

But, Mr. Chairman, I know testimony is going to be abundant this evening. I would like, if I may, please, to have my testimony appear in the record as submitted. I will try to summarize it in the interest of brevity. (See p. 53.)

Senator RANDOLPH. Please do.

Mr. VEYSEY. Unfortunately, Mr. Chairman, the bad news is I will have to add another section to it.

Senator RANDOLPH. At a later date.

Mr. VEYSEY. We now have an administration position, and I would like to try to explain that to the committee. I will bear in mind, however, the admonition that the spouting whale gets harpooned. So I will try to avoid that particular hazard.

Section 404 has received much attention in the Department of the Army, not only in my office but throughout the Army Corps of Engineers offices across the Nation.

This has been especially true since early 1975 when our permit functions under this section increased. This has always been a matter of concern to other branches of the Federal Government, to the private sector, and to many segments of the public.

Therefore, I welcome the review by this committee, and I am very happy to be able to present our views on this topic this evening.

In the last decade the American public and the Congress and our Government agencies have recognized the potential adverse impacts of our growing industrialized economy on our natural resources.

This has resulted in increased emphasis placed upon such matters as water quality and the preservation of our productive wetlands, which have perhaps been taken for granted in past years.

Now the Department of the Army has been involved actively and successfully in the wise and responsible management of the Nation's water and related resources for over 150 years. Today this includes major responsibilities for wetlands and other water bodies that have importance to water quality and quality of life for our citizens.

Considering our national reliance on abundant water of good quality for multiple uses and the seriousness of the deterioration of quality in the past, the mandate of the Congress in Public Law 92-500 "to restore and maintain the physical, chemical and biological integrity" of our Nation's waters is most appropriate.

Section 404 provides one important means to protect the quality of our Nation's waters against unwise dredging or filling disposal activities.

Now that we have had some experience, it is important for us to share what we have learned during this past year with this committee in these oversight hearings.

In 1824, the Army Corps of Engineers was given the responsibility for the Nation's canals and roads, and has lent a hand in the important development of our resources since that time.

Since that time, our position has constantly evolved in response to the needs and desires of the Nation and its people. Now our responsibilities have been expanded to include the reduction of flood damages, hydroelectric power, municipal and industrial water supply, water quality management, protection of fish and wildlife resources, recreation, and other important purposes.

Mr. Chairman, as you know so well, the Army Corps of Engineers' technical competence has enhanced the Nation's water resources. Administration of a regulatory program in the waters is not a new experience for the Army Corps of Engineers. But we have for decades been reviewing permit applications for construction of piers, sea walls, bulkheads and fill, dredging and disposal, and other activities.

Since the enactment of the Rivers and Harbors Act of 1899, the Army Corps of Engineers, by regulating activities in the water, has protected navigation in waters that are now used or could be used for navigation.

In 1968 we extended our regulatory activities in consonance with court decisions to include the review of water quality and other environmental concerns.

In September of 1972, pursuant to court decisions, the Corps further expanded this program to include those waters that had been used in the past but are not now presently used for commercial navigation, and all coastal waters subject to the ebb and flow of the tide landward to their mean high water mark.

In October 1972, Congress enacted the Federal Water Pollution Control Act Amendments of 1972 with a mandate to include "all waters of the United States." Section 402 established a permit program, administered by the EPA and the States, for the regulation of industrial and municipal discharges. EPA and Justice defined jurisdiction under this section as including all waters of the United States.

Section 404 established a permit program, to be administered by the Secretary of the Army acting through the Chief of Engineers, for the discharge of dredged or fill material into the navigable waters. Unlike the EPA, the Army limited its jurisdiction to that of the 1899 Act, as initial legal review led us to the conclusion that the intent of Congress was to have jurisdiction only in those waters.

The Army's position was successfully challenged by environmental groups and the State of Florida. On March 27, 1975, the Federal District Court in the District of Columbia ordered the Army to republish its regulation so as to recognize the full regulatory mandate of the Water Act as greater than that of traditional navigability. We did not appeal because the Secretary of the Army and the Justice Department believed there was merit to the court's finding that jurisdiction extended to all waters of the United States.

The congressional purpose of the Water Act was to preserve and enhance water quality, and that purpose is best effectuated by exercising broad jurisdiction.

In addition, study of the court's opinion led us to the conclusion that Congress intended the act to apply to the full extent of the commerce power; that is, all waters of the United States.

The Water Act defines "navigable waters" as "waters of the United States." The joint Conference report further explains the definition:

> The conferees fully intend that the term "navigable waters" be given the broadest constitutional interpretation unencumbered by agency determinations which would have been made or may be made for administrative purposes.

The Army published proposed regulations on May 6, 1975, and interim final regulations on July 25, 1975, just a year ago, that expanded its program to include the waters regulated under the 1899 Act and all other waters of the United States up to the point of normal stream flow of 5 cubic feet per second.

This included, of course, all contiguous and adjacent wetlands. The regulation also identified the types of activities to be regulated, including water disposal of dredged material, the conversion of a water or wetland area to dry land, and fill structures such as levees, dams, and roads that are placed in a water body. The regulation applies to both Federal and non-Federal activities.

Mr. Chairman, a considerable division of opinion resulted over the Army's publication of these proposed regulations. I am referring to the regulations published on the 6th of May. Over 5,000 letters were sent to the Chief of Engineers, plus thousands more directed to Corps field offices across the country. I would estimate that we received over 14,000 pages of public comment.

We incorporated the many thoughts in these comments into the interim regulations published July 25, 1975. These comments were valuable in the development of what we believe to be a reasonable and manageable regulatory program.

In response to these comments, we provided for general permits and excluded many activities in order to create a program responsive to water quality and public desires.

In addition, we provided for a phasing of the program which allows implementation in stages, to all waters of the United States. I will discuss these items in more detail later.

After we published the interim——

Senator DOMENICI. Excuse me, Mr. Secretary.

Mr. Chairman, I wonder, in light of the length of the testimony if it might be appropriate that we reconsider the original thought of having all four panelists give all of their testimony, and perhaps proceed with some questions.

I, for myself, don't think we need the indepth historical analysis. Perhaps I am wrong. But I have some very specific questions.

I would like to know what their suggestions are for curing the problem. Maybe there isn't one. But it seems to me that that is why we are all here.

We only have two evenings, as I understand it, and we either do something or not.

I might say to our panelists, I am not trying to be a prima donna, but we are going to go in session at 8:00 in the morning.

I would just really like to get some questions asked. I raise that in all honesty and not in derogation of the superb testimony that has been prepared. Might I ask a few questions, Mr. Chairman?

Senator RANDOLPH. I only made it as a suggestion because, frankly, I did not realize that the time consumed might be inordinately long. This is no criticism whatsoever. But I think that we can break into the questioning.

Senator Domenici, why don't you start out now?

Senator DOMENICI. I just would like to ask the Secretary, or his legal counsel, if I understand what you are saying, you are suggesting that the courts took the definition of navigable waters from the entire Water Act and applied it to section 404.

I wonder if you have any opinion as to whether or not the permit system that you contemplate is going to be in compliance with that court order.

I read it and I am not sure. You have created exceptions. I don't read the court opinion—it says you shall have jurisdiction under 404 for all navigable waters as defined in the Clean Water Act, not in section 404.

I think that is the issue here. 404 had a purpose. The Clean Water Act had a purpose. The concern is how broad is the permit authority under 404. That may not be the same issue as how broad is the regulatory powers given to you and others under the Clean Water Act.

I don't hear anyone addressing that. Mr. Train certainly has given us the general proposition that the Clean Water Act has all of these purposes that he has described.

But what we are concerned about, as I see it, is section 404 and the interpretation of the court order and your implementation of the court's ruling and does that give us a problem or not.

If it doesn't, and you think you have a perfect permit system under it, I think we ought to know about that.

Mr. VEYSEY. Senator, I think you raise a very good point. Of course, section 404 is a part of the whole act. So, of course, it has an interrelationship.

Senator MUSKIE. Could I ask, would the Senator yield?

I am curious, Mr. Train. I simply ask it in conjunction with Senator Domenici's question, because I think he can answer both his and mine at the same time.

I would get the impression from Mr. Train's testimony and yours that both agencies now have incurred the same complementary comprehensive jurisdiction over all the purposes of the Clean Water Act.

That was certainly not our intent. It isn't necessarily translated into judicial judgment as to what legislative intent was. Section 404 surely was not intended to create in the Corps of Engineers authority comparable to EPA's broad authority, as so eloquently and I think accurately articulated by Mr. Train tonight.

I get the impression from both of your testimonies that you share this broad, comprehensive authority. I am wondering if I have misread your testimony; whether you believe that, or whether you think your authority is narrower and different than that of Mr. Train's; and, if so, to what extent it is narrower and different.

Mr. VEYSEY. Senator Muskie, of course, the authority is different. Ours is very specific within 404 as to dredged and fill materials put into the waters.

Senator MUSKIE. Could I, incidentally, on that point of my question, read from something I had to say with respect to legislative intent from Senator Ellender who offered an amendment to put the authority of section 404 entirely in the Secretary of the Army, in the Corps of Engineers, and take out EPA's contribution?

This is what I had to say:

> The Corps of Engineers, a mission-oriented agency, is not equipped to evaluate the environmental impact of these dredging activities. It is equipped to form judgments on what is needed for navigation. This bill does not take that judgment-making authority from it. The amendment by Mr. Ellender would shift the environmental evaluation from EPA to the Corps of Engineers and the committee is against it. The committee considered this and rejected it. The committee's position is no. I urge the Senate to vote no on this amendment.

Now you are telling me that notwithstanding that explicit definition of the committee intent, that you now share with EPA the broad, comprehensive environmental judgment-making authority of EPA.

I am wondering whether I have misread you or misheard you.

Mr. VEYSEY. Let me say, if I can respond to that, Senator Muskie——

Senator RANDOLPH. To whom are you responding; to Senator Domenici or Senator Muskie or both?

Mr. VEYSEY. Senator Muskie's question, I think, is interrelated.

Senator RANDOLPH. I have a question, so if you want to take us all at one time, what is fill? Let's get down to basics.

Mr. VEYSEY. The regulation specifies a long list of materials as fill: dirt and rock and sand and other types of pollutants put back in the waters, to change the bottom elevation of the water body.

Senator RANDOLPH. You were with me on September 27, 1975, when we dedicated the Hannibal Locks and Dam; is that right?

Mr. VEYSEY. That is right.

Senator RANDOLPH. That project was to increase the tonnages on the Ohio River. Capacity was increased some 22 million tons, perhaps. Was that an important project?

Mr. VEYSEY. Yes, indeed it was an important project, and is an important project.

Senator RANDOLPH. Did it degrade the Ohio River?

Mr. VEYSEY. Not in my judgment; no, sir.

Senator RANDOLPH. Thank you.

Mr. VEYSEY. Let me see if I can pick up where we were.

Senator RANDOLPH. That is all right. We are just up and down the river, all of us. Do you have anything to say, Senator Burdick?

Senator BURDICK. May I get into the act?

Senator RANDOLPH. Yes, indeed.

Senator MUSKIE. I will wait until tomorrow for my answer.

Mr. VEYSEY. If I may, let me go to Senator Muskie and get back to where we were. Section 404 of ——

Senator RANDOLPH. I am serious now. Didn't you have a question?

Senator BURDICK. Let it go. We will get it later.

Senator RANDOLPH. All right. Thank you. Everybody is happy.

Mr. VEYSEY. We are responding now to Senator Muskie's question. Section 404 applies to the navigable waters, and the navigable waters is defined only once in the act, in section 502, as the waters of the United States. That, among other aspects of the legislative history, I think impelled the court to tell us in their decision that we must extend the jurisdiction to the full extent of the interstate powers of the Federal Government.

We have attempted to do that in a responsible way. That doesn't mean that the Army has set itself up as the environmental agency. We relied on guidelines promulgated by EPA for standards in this program and, of course, EPA has a veto over any permit granted by the Corps of Engineers.

Senator MUSKIE. I hesitate to ask any more questions. I yield to Senator Domenici.

Mr. VEYSEY. Senator, back to your question. I have forgotten what it was.

Senator DOMENICI. I asked you if you thought that the proposed permit system and regulations propounded by the corps did comply with the court order.

The court order mandated that you have jurisdiction under section 404 for all navigable waters as they defined it, and they chose language from a subsequent section of the Clean Water Act.

I am not arguing that the Clean Water Act was improperly interpreted by the Corps. I am wondering whether or not under 404, when you create exceptions and proceed as you have, obviously in response to turnover as I see it and almost latent ability to comply, whether or not you feel you have complied with respect to the court order.

Mr. VEYSEY. I think we have very reasonably. But I would like to ask Peter Taft to perhaps give you the legal point of view from the Justice Department.

Mr. TAFT. Senator, the regulations have been in effect now for just about a full year, pursuant to the order. That has been accepted by the party plaintiff today. I don't think it would be too well received

at this time to come in and try to upset a program that has been obviously phased to go into effect and has been carried out for a year.

However, the Cleveland-Harsha amendment, which the administration backs, really treats exactly what you are talking about. It takes the exemption for farming and silviculture found in the regulations and codifies those so that other parties could come along and challenge it at some other time or in some other suit or some other court.

So that I think in that sense what the administration asks for at this time will make sure that what the Corps has done cannot be overturned.

Senator DOMENICI. Thank you.

Thank you, Mr. Chairman.

Senator RANDOLPH. Thank you.

Will you proceed, Mr. Veysey?

Mr. VEYSEY. Thank you, Mr. Chairman. I wanted to point out that following the publication of the interim regulations, the Corps of Engineers undertook a rather arduous program of presenting these regulations to the people of the United States in 4 major public hearings in the Nation and 243 local public meetings to explain the regulations and to hear the comments from all groups.

As a result of that effort, the corps has received possibly 2,000 letters of approximately 6,000 pages of additional comment. I can give you a breakdown of about how those comments have run.

They have been running 50 percent for the expanded Federal jurisdiction; about 43 percent opposing that expanded jurisdiction; and approximately 7 percent providing comments but not on that particular point.

I would like to move forward, if I may, through my testimony rather rapidly and come to some other information which we would like to present based on our experience of the past year in implementing these regulations.

Recently the Interstate Conference on Water Problems was called on to survey the State positions concerning section 404. We only have preliminary information at this time, but 50 States and 2 territories have responded.

Thirty-four of these have indicated their intent, under various conditions, to seek a delegation of section 404 authority. Six have responded that they would not seek delegation. Twelve are undecided.

I think there needs to be further effort to develop the full meaning of those statistics. But I present them for your information at this point.

During this year, the first year of experience since the implementation of the program, the Corps has received by actual count 1,149 section 404 permit applications which were not also under the jurisdiction of the 1899 act. I give you that figure to give you a measure of the additional workload which has been added on by virtue of phase 1 of the regulations. That much additional workload is attributable directly to phase 1 of the expanded regulation.

We have sought in a number of ways to minimize any possible adverse impacts of the regulations. We have developed the practice of issuing general permits to cover repetitive operations or transactions involving dredging or filling that have minimal individual or minimal cumulative adverse impact on the environment.

As of mid-June, 66 general permits were in some stage of development, with 21 actually in effect by early July.

Now, the typical activities covered by general permits include dredged or fill material for boat docks, bank and shore protection, and fill associated with road construction.

The general permit program has been rather widely accepted, and we think it will relieve a good many of the problems.

I would like to turn now, if I may, Mr. Chairman, to the recommendations of the administration.

As you know, in the House of Representatives the administration supported the Cleveland-Harasha amendment. Because in our experience this past year, we have learned that some things need further legislative attention.

This amendment is now before this body in the form of the Hart bill. The administration still supports those changes, but there are some additional changes that we would also recommend to you.

In addition to the legislative clarification of the general permit authority, which is incorporated in the Cleveland-Harsha or the Hart bill, and the exemption of normal agricultural, silvicultural and ranching activities—also incorporated in those bills and, I might say, incorporated in our regulations—the administration would also suggest that all agricultural activities be excluded from the program in areas currently in agricultural use. I stress the phrase currently in use because this is kind of a grandfathering type situation to protect agricultural uses of areas as they exist today.

But if the area was to be changed from agricultural to other uses, then a permit would be needed. We hope that this approach will strike a balance between the need for wetlands protection and our mutual concern for ongoing agricultural operations.

In addition, the administration believes that the statute should be amended to give substantial discretionary authority to the Secretary to exclude categories of discharge from the permit requirement.

In our present regulations, as has been pointed out, the Army has excluded normal agricultural and silvicultural activities and the maintenance and emergency reconstruction of existing structures, such as dikes, dams or levees.

With more experience and when the need becomes apparent to us, the Secretary will be able then to exclude other activities which have minimal impact upon water quality.

The administration also recommends the statute be amended so as to make clear that permit decisions be based on navigation, water quality, and fish and wildlife concerns, and not on factors unrelated to the chemical, physical and biological integrity of the Nation's water, such as unemployment or demographics or socioeconomic considerations or land use factors.

Mr. Chairman, I believe, and the administration recognizes that there is real need to allow delegation to the program of the States, subject, of course, to adequate standards that would allow for national water quality management.

Up to this point there has been only very limited opportunity to talk to States and no opportunity to delegate the project responsibilities of the act under section 404 as there exists in other sections of the act.

There is a real Federal interest in protecting the waters of the United States from unwise dredged or fill disposal. Outside of the Federal navigation servitude, I believe this protection can best be furnished by the States operating permit programs under general Federal standards.

Thus, we are of the opinion that authority to delegate to the States under Federal standards should be included; and, if need be, hearings should be undertaken by the Congress to structure such a delegation program.

This committee has had considerable experience in devising other delegation provisions and perhaps can proceed forthwith in this direction. We can furnish some information gathered from the States that may be of assistance to the committee. But it seems to me that it is very important that the States themselves have an opportunity to express their views and to make their recommendations. That, it seems, would require congressional hearings.

The Presidential delay of 60 days from July 1 has perhaps already stretched the limit of legal toleration under the present statutes. Congress clearly needs to make any decision regarding future delay.

At this point, Mr. Chairman, I would just like to make two commitments to you and to the American public. First, that the Army will continue to proceed in a reasonable and responsible manner in fulfilling our section 404 mandate to protect our Nation's water resources, including the valuable wetlands; and, second, the Army will make every effort to streamline the administration of this program to insure that it does not cause any unnecessary inconvenience to any portion of the American public.

We have learned a great deal in the first year of implementation of this program. We have identified many problems of major interest to the American public.

The concrete courses of action which we have advanced, such as delegation, can remedy most of the problems and still accomplish the goal of promoting the wise and responsible sustained use of our Nation's valuable water resources, including wetlands.

I thank you, Mr. Chairman.

[Mr. Vesey's prepared statement follows:]

STATEMENT OF HON. VICTOR V. VEYSEY, ASSISTANT SECRETARY OF THE ARMY, CIVIL WORKS

Mr. Chairman and Members of the Committee, I am indeed pleased to appear today at the invitation of the Committee to testify in behalf of the Administration on Section 404 of Public Law 92-500.

Section 404 has received much attention in the Department of the Army, not only in my office but throughout the Army Corps of Engineers offices across the Nation. This has been especially true since early 1975 when our permit functions under this section increased. I would add, Mr. Chairman, that Section 404 has occupied the attention of the other Federal water and land resources agencies, local and state governments, the private sector, and many segments of the public. Therefore, I welcome the review by this Committee, and I am very happy to be able to present our views on this important topic.

In the last decade the American public and our government agencies have recognized the potential adverse impacts of our growing industrialized economy on our natural resources. This has resulted in increased emphasis placed upon such matters as water quality and the preservation of our productive wetlands, which have perhaps been taken for granted in past years.

The Department of the Army has been involved actively and successfully in the wise and responsible management of the Nation's water and related land resources

for over 150 years. Today this includes major responsibilities for wetlands and other water bodies that have importance to water quality and quality of life for our citizens.

Considering our national reliance on abundant water of good quality for multiple uses and the seriousness of deterioration of quality in the past, the mandate of the Congress in P.L. 92-500 "to restore and maintain the physical, chemical and biological integrity" of our Nation's waters is most appropriate. Section 404 provides one important means to protect the quality of our Nation's waters against unwise dredging or filling disposal activities. Now that we have had some experience, it is important for the Committee to conduct oversight hearings on the progress of the Section 404 program, and possible mid-course corrections to it. I am certainly pleased that you will be obtaining the views of the various agencies and the many interest groups representing all sectors of our economy and the American public.

REVIEW OF HISTORICAL ARMY INVOLVEMENT

In 1824, the Army Corps of Engineers was given the responsibility for the Nation's canals and roads, a most important function for a developing Nation and a beginning of our involvement in water resources development and management. Since 1824, our position has constantly evolved in response to the needs and desires of the Nation and its people. From this early base of concern with waterborne transportation and commerce, our responsibilities have been expanded to include reduction of flood damages, hydroelectric power, municipal and industrial water supply, water quality management, protection of fish and wildlife resources, recreation and other important purposes.

This Committee knows, Mr. Chairman, the great and diverse benefits that have accrued to the American public as a result of application of the Army Corps of Engineers' technical competence to enhancement of the Nation's water resources. Administration of a regulatory program is not a new experience for the Army Corps of Engineers. We have, for decades, been reviewing permit applications for construction of piers, sea walls, bulkheads and fill, dredging and disposal, and other activities.

Since the enactment of the Rivers and Harbors Act of 1899, the Army Corps of Engineers has protected navigation by regulating activities in waters that are now used or could be modified for use for navigation. In 1968, we extended our regulatory activities in consonance with court decisions to include the review of water quality and other environmental concerns. In September 1972, pursuant to court decisions, the Corps further expanded this program to include those waters that had been used in the past but are not now presently used for commercial navigation, and all coastal waters subject to the ebb and flow of the tide landward to their mean high water mark. This revision included some coastal wetlands previously unregulated by any Federal program.

In October 1972, Congress enacted the Federal Water Pollution Control Act Amendments of 1972 with a mandate to include "all waters of the United States." Section 402 established a permit program, administered by EPA and the States, for the regulation of industrial and municipal discharges. EPA and Justice defined jurisdiction under this Section as including all waters of the United States. Section 404 established a permit program, to be administered by the Secretary of the Army acting through the Chief of Engineers, for the discharge of dredged or fill material into the navigable waters. Unlike the EPA, the Army limited its jurisdiction to that of the 1899 Act, as initial legal review led us to the conclusion that the intent of Congress was to have jurisdiction extend only in those waters.

The Army's position was successfully challenged by environmental groups and the State of Florida. On March 27, 1975, the Federal District Court in the District of Columbia ordered the Army to republish its regulation so as to recognize the full regulatory mandate of the Water Act as greater than traditional navigability. We did not appeal because we believed there was merit to the Court's finding that jurisdiction extended to all waters of the United States. The Congressional purpose of the Water Act was to preserve and enhance water quality, and that purpose is best effectuated by exercising broad jurisdiction. In addition, study of the Court's opinion led us to the conclusion that Congress intended the Act to apply to the full extent of the Commerce power, i.e., all waters of the United States. The Water Act defines "navigable waters" as "waters of the United States." The Joint Conference Report further explains the definition:

"The conferees fully intend that the term 'navigable waters' be given the broadest constitutional interpretation unemcumbered by agency determinations which would have been made or may be made for administrative purposes."

The Army published proposed regulations on May 6, 1975 and final ones on July 25, 1975 that expanded its program to include the waters regulated under the 1899 Act and all other waters of the United States up to the point of normal stream flow of five second feet. This included, of course, all contiguous and adjacent wetlands. The regulation also identified the types of activities to be regulated, including water disposal of dredged material, the conversion of a water or wetland area to dry land, and fill structures such as levees, dams, and roads that are placed in a water body. The regulation applies to both Federal and non-Federal activities.

Mr. Chairman, a considerable division of opinion resulted over the Army's publication of these proposed regulations to implement this Court order. Over 5,000 letters were sent to the Chief of Engineers plus thousands more directed to Corps field offices across the country. I would estimate that we received over 14,000 pages of public comment. We incorporated the many thoughts in these comments into the final regulations published July 25, 1975. These comments were very valuable in the development of what we believe is a reasonable and manageable regulatory program.

In response to these comments, we provided for general permits and excluded many activities in order to create a program responsive to water quality and public desires. In addition, we provided for a phasing of the program which allows implementation in stages, to all waters of the United States. I will discuss these items in greater detail later.

After we published the final regulation on July 25, 1975, the Army Corps of Engineers took additional significant steps to acquaint fully the public and all interest groups with these regulations. Four major public hearings were conducted across the Nation. In addition, 243 local public meetings were held. As we were informing the public, we were also developing a closer working relationship with State governments. Senior officials in every State were briefed by Corps Division and District Engineers regarding our implementation of Section 404. The Corps has received in the last year another 2,000 letters of approximately 6,000 pages, with public expression running about 50 percent for the expanded Federal jurisdiction, about 43 percent opposing the expanded jurisdiction, and approximately 7 percent providing comment but not expressing any particular opinion on jurisdiction.

The division of views on this issue may be summarized rather briefly. On the one hand, certain interests are very much concerned about a significant expansion of Federal regulation over previously unregulated activities in our Nation's waters, including wetlands, and the economic implications of that expansion. On the other hand, we have environmental considerations, in particular, protection of our Nation's valuable and diminishing water resources, including wetlands. In addition to environmental considerations, there are certainly substantial economic values associated with the continued existence of our wetlands.

Section 404, whether it remains in its present form and retains the current jurisdiction or whether it is modified, will certainly have some impact upon not only utilization of our water resources for economic development but upon quality of life and environmental quality considerations in general. In this light, Section 404 will play an important role in wetland preservation.

I would now like to address the matter of the Department of the Army's experience in the past year with Section 404.

SECTION 404 EXPERIENCE IN PAST YEAR

In our July 25, 1975 regulations, we announced a three-phased implementation of the expanded jurisdiction. Under Phase I, which went into effect shortly after the Federal Court case, individual permits were required for all discharges of dredged or fill material into the waters already regulated by the 1899 Act and their contiguous or adjacent wetlands. In Phase II, originally scheduled to be effective July 1, 1976, now delayed 60 days by order of the President, Section 404 will be expanded to primary tributaries of the traditionally navigable waters of the United States and lakes with a surface area greater than five acres, as well as the wetlands associated with them. On July 1, 1977, permits will be required for all other waters of the United States under the 404 program up to the 5-second foot flow level.

Our desire has been and is for a moderate and reasonable approach toward implementing Section 404 in the broad public interest, toward minimizing paperwork, and toward focusing on actions with significant adverse effect on water quality.

We have cooperated with EPA in our continuing development of this reasonable program; they review public notices, monitor projects, and exercise their own responsibility which includes a final veto authority over all permits. While the Army's implementing regulation established the Section 404 program, EPA, acting in conjunction with the Army, has prescribed the technical, nationwide guidelines for us to use in evaluating these activities. Army scientists and managers worked closely with EPA in developing these criteria, and interagency working groups continue to reevaluate them.

Recently, the Interstate Conference on Water Problems surveyed State positions concerning Section 404. While the information available to us at this time is preliminary, it is nonetheless very interesting. Fifty-two states and applicable territories have responded. Thirty-four of these have indicated their intent, under certain conditions, to seek a delegation of Section 404. Six responded that they would not seek delegation, and 12 were undecided. The issue becomes more complicated, however, when we examine how many states presently have the necessary capability to assume responsibilities under Section 404.

To answer this, we posed a series of requirements which we considered to be the minimal that a State would have to meet to qualify for potential delegation of portions of the Section 404 program. Two threshold tests were developed. Test I deals with such questions as the extent and scope of the State's program, and how it is implemented. Test II is more stringent; it requires that, in addition to meeting the requirements of Test I, the States have defined criteria for the placement of dredged or fill material, and have defined wetlands for their regulatory program. Of the 34 States and territories that would seek delegation, 19 passed Test I and only 6 passed Test II, as of early 1976.

Some of the reasons we have been interested in the matter of delegation of certain responsibilities under Section 404 are: (1) Existing capability of some States to deal with permits for dredged or fill material; (2) Advantages of having States consider water and wetlands uses along with land uses; (3) Desire to avoid duplicative permits—Federal and State; and (4) Conservation of manpower and resources. I would emphasize, Mr. Chairman, that we recognize the important national implications of water quality and would urge that adequate Federal criteria be available to determine when the public interest will be served through a delegation to specific State governments.

It may be useful to the Committee to learn what our experience has been relative to the number of permits received as a result of Section 404.

During this past year, which is the first year of experience since implementing the 404 program under our expanded jurisdiction, the Corps received 1149 Section 404 permit applications which were not also under the jurisdiction of the 1899 Act. These would be only those applications for work in wetlands in contrast to those for work in navigable waters under Phase I. This is the added workload attributable to Section 404 expanded jurisdiction only, and casts doubts on the estimates of 20,000 to 50,000 new permits which had been projected in a preliminary way before we had specific experience.

Now, Mr. Chairman, I should also add that our combined permit workload under Section 10 and Section 404 has increased significantly over the last few years. I attribute much of that increase to a greater awareness by the public of permit requirements, due in part to the attention that Section 404 has received.

It is still somewhat difficult to determine what the total increase in our permit load will be as a result of this expanded program. However, if it is the intent of the Congress and the American public for the Nation's wetlands to be protected from significant pollution and from elimination by unwise development in the interest of water quality and other factors, then review of many dredge and fill permit applications is required.

Regarding our Fiscal Year 1977 and fiscal year 1978 situation, one can only make estimates in terms of high and low ranges. Many factors will influence the final count of Section 404 permit applications to be received in these years, including the extent of State delegation, the success of general permits, and other administrative mechanisms that can be utilized to structure an effective and responsive water quality program.

We believe that we will be able to minimize the public impact of the program by use of general permits. A general permit can be used to authorize a large number of activities in a particular geographical area. As provided in the interim final regulation, two overall requirements must be satisfied before the general permit can be issued. First, the activities covered must be similar in nature and, second, they must have a minimal individual and cumulative adverse impact on the environment.

A person who desires to build a type of project included under most general permits would need only notify the Corps of his intention to do so. This eliminates the need for a formal application which must be processed by the Corps before a permit is issued. Some of our general permits do require an applicant to submit a request to the Corps so that we can insure that the work conforms to the conditions of the general permit, but this is done very quickly without lengthy coordination, public notices, etc. Not only does the general permit benefit the applicant, but such a permit can free a Corps District Office from processing hundreds of applications a year. We intend general permits to be utilized to the maximum extent possible.

As of mid-June, 66 general permits were in some stage of development, with 21 actually in effect by early July. Typical activities covered by general permits include boat docks, bank and shore protection, and fill associated with road construction.

The general permit concept is being widely accepted. Most Federal and State agencies stand to benefit by being relieved of reviewing many individual applications. In many areas, it is the effectiveness of the local or State programs which has allowed the implementation of general permits. General permits do not, of course, avoid compliance with the Act; they do, however, offer much administrative relief.

A second means we have used to structure a manageable program that focuses on water quality is exclusion of certain activities from the program. Exclusions include normal farming, silviculture, and ranching activities such as plowing, cultivating, seeding, and harvesting, and maintenance and emergency reconstruction of existing fills.

The above exclusions are similar to those in the Cleveland-Harsha Amendment; however, that Amendment would make them statutory. You may be interested in the difference between the Cleveland-Harsha exclusions and those in the Wright Amendment. In light of the Wright Amendment's structure and history, it can be read to exclude from the program all dredged or fill disposal in any way associated with agriculture, including major road building, diking, and creation of check dams. It has no limitations, such as excluding only lands presently committed to agriculture and it appears to offer a loophole which would permit an agricultural operator to become a major land developer for any purpose.

We also have taken other steps to reduce the administrative burden to both the Army and the public. Many of the dredge and fill permit applications that we have received under Phase I are for work in navigable waters and, therefore, require a Section 10 permit as well as a Section 404 permit. Therefore, we process these two permits concurrently on the same piece of paper.

As you know, Mr. Chairman, many States require the public to obtain State approval for dredge and fill activities. When these activities require a Corps' permit, we coordinate closely with the State to process the permits concurrently when possible. I might say, Mr. Chairman, that it is our policy not to grant a permit if the State disapproves an applicant's request.

RECENT LEGISLATIVE PROPOSALS

The issues which have surfaced over the past year have served as a stimulus for several major proposed amendments to Section 404 of PL 92-500. The first of these was the amendment introduced by Congressman Breaux of Louisiana and adopted by the House Public Works Committee. The intent of this amendment was to reduce the jurisdiction of the 404 permit program to the traditionally navigable streams of the Nation, less historic navigable waters, plus contiguous wetlands.

The Cleveland-Harsha Amendment was proposed in lieu of the Breaux amendment, and would basically do three things: First, it would exempt discharges resulting from normal farming, silviculture, and ranching activities such as plowing, seeding, harvesting, and cultivating, all of which we believe were never intended to be regulated under Section 404 in the first place. Second, it would exempt maintenance and emergency reconstruction of currently serviceable structures, the construction and maintenance of farm and stock ponds and irrigation ditches, and the maintenance of drainage ditches. Finally, it would authorize the Department of the Army to issue general permits for dredged or fill materials where such activities are similar in nature and cause only minimal adverse environmental impact. The Administration supported this approach.

On June 3, 1976, the House passed the Wright Amendment to Section 404, which restricted jurisdiction to the 1899 jurisdiction plus adjacent wetlands, less

historical navigable waters. It exempted most farming, silviculture, and agriculture activities with legislative history suggesting that all such activities, even the conversion of wetlands and swamps to fast land for "agricultural" purposes, are intended to be exempt. It also included an option to assume responsibility for other waters of the United States upon the invitation of the Governor of a State.

Mr. Chairman, we feel that the Wright Amendment, as presently drafted, would present serious problems. We believe it would not provide for effective protection of wetlands, could have a detrimental impact on navigation, would result in confusion as to the authority of other water quality programs, and may open up many "loopholes" that could be used to undermine the purpose of the Water Act, the preservation and enhancement of water quality.

Mr. Chairman, as you and the Members of the Committee know, the Administration supported the Cleveland-Harsha Amendment in the House but made this position known only a short time before debate took place on the floor of the House. A great deal of study preceded the President's decision to support the Cleveland-Harsha Amendment on the part of all of the affected Federal agencies, including the Department of the Army. This involved careful analysis of our experience in the past year, as well as our assessment of what was required to meet the mandate of the Congress and the American people.

ADMINISTRATION POSITION AND RECOMMENDATIONS

Mr. Chairman, the Administration still supports the concept of broad Federal jurisdiction over all waters of the United States, as embodied in the Cleveland-Harsha Amendment, which is now before this body as the Hart Bill, but believes that, in addition, several changes are required at this time in order to define clearly the scope of Federal responsibility, to strike an appropriate balance between conflicting interests, and to reduce the regulatory burden.

In addition to the legislative clarification of general permit authority and the exemption of normal agricultural, silvicultural and ranching activities, the Administration would suggest that all agricultural or silvicultural activities be excluded from the program in lands currently in agricultural or silvicultural use. I stress the phrase "currently in use." In addition, if the land were to be changed from agricultural to other use, a permit would be needed. This approach strikes a balance between the need for wetlands protection and our mutual concern for ongoing agricultural operations.

In addition, the Administration believes the statute should be amended so as clearly to vest substantial discretionary authority in the Secretary of the Army to authorize by regulation categories of discharges which have insignificant impact on water quality.

The Administration further recommends that the statute be amended so as to make clear that a decision to deny a permit be based upon navigation, water quality, and fish and wildlife concerns, and not upon factors unrelated to the chemical, physical and biological integrity of the Nation's waters such as unemployment, demographics, and aesthetics.

Mr. Chairman, I believe there a real need to allow delegation of the program to States, subject, of course, to adequate standards that would allow for National water quality management. Up to this point, however, there has been only limited opportunity for discourse with the States, because the Act does not provide a legal basis for delegation in Section 404.

I believe there is a very real Federal interest in protecting the waters of the United States from unwise dredge or fill disposal. Outside of the Federal navigattional servitude, I believe this protection can best be furnished by States operating permit programs under general Federal standards.

The Department of the Army has had many discussions with States on these matters, and we have come to the conclusion that, to be meaningful, delegation must be carefully considered by the Congress, and further, that delegation will not work in the form that was hastily devised for the Wright Amendment. It seems to me it must have the proper amount of incentive to encourage and attract the States disposed to accept the responsibility and the right amount of pressure on those not so inclined.

This Committee has had considerable experience in devising delegation provisions and experience in their oversight. The Army can furnish some helpful information from its work with States and from the survey of States' desires and intentions.

At this point, Mr. Chairman, I would like to make two commitments to you and the American public. First, the Army will continue to proceed in a reasonable

and responsible manner in fulfilling our Section 404 mandate to protect our Nation's important water resources, including its valuable wetlands. Second, the Army will make every effort to streamline our administration of this program to ensure that it does not cause any unnecessary inconvenience to any portion of the American public.

I believe that we have learned a great deal in this first year of implementing Section 404 and have identified the major problems of interest to the American public. The concrete courses of action which we have advanced, such as delegation, can remedy most of these problems and still accomplish the goal of promoting the wise and responsible sustained use of our Nation's valuable water resources, including wetlands.

SUMMARY

I have reviewed for the Committee's information the evolving responsibility of the Army Corps of Engineers from an initial concern with waterborne commerce through flood control and then to the current times. I am convinced that activities involving use and modification of our Nation's important and valuable wetlands must be a subject of concern to all of us. The Army Corps of Engineers and other agencies have major responsibilities in this area.

That concludes my statement, Mr. Chairman, and I would be pleased to respond to specific questions which you and other members of the Committee may have at this time.

Thank you for the opportunity to appear and speak in behalf of the Department of the Army and the Administration.

Senator RANDOLPH. Thank you, Mr. Secretary. I realize that we must be more or less flexible in what we are doing in questioning. Perhaps, Senator Burdick, would you care to comment?

Senator BURDICK. Thank you, Mr. Secretary. I would like to know the extent to which you recommend the exemption from the total overall jurisdiction you have over waters in farming operations. What do you mean by normal farming operations?

Mr. VEYSEY. In the regulations, Senator Burdick, we wrote that normal farming operations—such as plowing, cultivating soil, seeding, fertilizing, harvesting—would all be exempted from the definition of dredged or fill material.

It was with the intent of saying that all the normal things that a farmer does in the course of his operations are exempted. That was our intent.

However, it was not our intent to construe as a normal farming operation the diking off of a large body of water and the draining of it and conversion of it into a farming operation. That would not be considered as normal farming operation.

Senator BURDICK. How would a farmer know whether or not it was a large body of water you have referred to? How would he determine that?

Mr. VEYSEY. I think he may have a problem of determining his status if he begins operating in a wetland or in a body of water. It is not really a very normal farming operation to do that.

But I suppose in that instance, not knowing the exact situation that you have in mind, that he might be well advised to determine whether that is an operation which requires a permit or not.

Senator BURDICK. That is my precise opinion, that in all cases then he would have to make an application to decide whether or not he had too large a body of water. In all cases he would have to ask for a permit.

Mr. VEYSEY. No; well, in all cases in which he undertook some new operation in a body of water, yes. That might be true.

Senator BURDICK. From a stock pond on up, or down.

Mr. VEYSEY. No; we have in the regulation a 5-acre size regarding natural bodies of water. Anything below that is not considered significant.

Senator BURDICK. In some cases you might need more.

Mr. VEYSEY. Yes; you might need more, but then in that case you might need a permit.

Senator BURDICK. In other words, you would have to file a permit in order to assure you it wasn't more than 5 acres.

Mr. VEYSEY. The question of size is one that I think can be determined without filing a permit. If it is over 5 acres, he might need a permit. If under 5 acres, he would not.

Senator BURDICK. We are talking about areas that are out in a small tributary where they have a runoff in the spring from snows and they trap some of this water for their stock.

Mr. VEYSEY. Yes.

Senator BURDICK. They are quite concerned out there, that he has to go and secure this and go through a long and drawn out application to get a permit. From what you say, you will have to review every one of them because they are limited in size.

Mr. VEYSEY. Those in excess of 5 acres might be subject to a permit.

Senator BURDICK. You can't tell whether it is 5 acres until he makes an application.

Mr. VEYSEY. I suppose the farmer knows whether it is 5 acres.

Senator BURDICK. You have to know it, too.

Mr. VEYSEY. I believe the presumption would be if it is about 5 acres, nobody is going to worry about it. If it is over 5 acres we might be out talking with him.

Senator BURDICK. In other words, this permit procedure is now established, isn't it?

Mr. VEYSEY. Pardon me?

Senator BURDICK. It is now established by regulation, isn't it; or not?

Mr. VEYSEY. It has been for 1 year; yes, sir. The Hart bill, which is before you and one which the administration favors, would exempt automatically all stock ponds, regardless of size. Now, that would be a change.

Senator BURDICK. What if the stock pond embraces 160 acres?

Mr. VEYSEY. I have not seen the language as to exactly how this works. But it was my understanding that it would be exempt.

Senator BURDICK. Where can I get a copy of the regulations involving agriculture, a complete set?

Mr. VEYSEY. I can give you one right now. They were published in the Federal Register, Senator, on July 25, 1975.

Senator BURDICK. Mr. Chairman, with your consent, I will submit some questions about this matter.

Senator RANDOLPH. Thank you very much, Senator Burdick.

As I understand, you make reference to the approach that Senator Gary Hart with this committee has fostered on the Senate side. Is that identical with the Harsha-Cleveland approach in the House?

Mr. VEYSEY. Yes. We believe that that bill is identical with the Cleveland-Harsha amendment in the House.

Senator RANDOLPH. That has the support of the Corps of Engineers; is that correct?

Mr. VEYSEY. Yes, it does; and the administration's endorsement.

Mr. TRAIN. Mr. Chairman, could I make a comment with respect to Senator Burdick's question?

Senator RANDOLPH. Yes, Mr. Train.

Mr. TRAIN. Senator Burdick, it is my understanding that the general permitting authority being exercised by the Corps is intended to and designed to spell out the elimination of practically every kind of normal farming activity that could possibly be involved in this kind of a question insofar as the need for the farmer to come in and get a permit is concerned.

There shouldn't be any question in every normal kind of case. When you get into a large natural lake over 5 acres, if it should involve one of these activities not excluded by general permit, then yes, it would be intended that he should ask for a permit. But this would involve such a very limited class of activities that it is almost inconceivable to me that this could be a very real problem.

Senator BURDICK. My point was for an administrator to administer the law properly, there has to be an application in every case. You would have to review it; you would have to check it, wouldn't you?

Mr. VEYSEY. No.

Senator BURDICK. You couldn't just take his word for it. You have a pond 4¾ acres. Could I have a permit?

Mr. TRAIN. In my experience as an administrator, I believe you try to keep things from coming in as best you can.

Senator BURDICK. Can I tell the farmer that he can write and say he has 4½ acres and you will give a permit?

Mr. TRAIN. I suggest he not write the letter in the first place.

Senator BURDICK. You just put the fill across the river. It is okay. I will tell him so. Is that right?

Mr. VEYSEY. Right.

Senator BURDICK. No approval?

Senator MUSKIE. Cite their testimony as their approval.

Senator RANDOLPH. If you will indulge the Chairman for one comment, and then we will go to the other questions or come to Mr. Reed.

Mr. Train, if section 404 was repealed and the regulation of discharge of dredge spoil or fill were included under section 402, that is the permit program, what types of activities do you believe should be regulated by the permits?

That is what in a sense Senator Burdick has been addressing himself to, the matter of permits, although my question, of course, goes further.

Mr. TRAIN. I recognize that. If EPA had to directly conduct a permit program governing these activities, which I assure you we are not seeking, I would presume that we would issue regulations defining the scope of implementation essentially as the Corps has done.

We have cooperated with the corps in trying to define the various exclusions, and we have cooperated with the Corps in working out the general permit authority.

I would assume, generally speaking, that this would reflect the thinking that would go into our own implementation. I would assume again that the jurisdiction would be as broad as EPA's water quality jurisdiction is generally; that is, all of the waters of the United States.

Senator RANDOLPH. Mr. Train, if we move to 402, where do the States come as participants, as responsible parties?

Mr. TRAIN. Under the 402 program, there is a specific delegation authority under the criteria, as you are aware. We have delegated that authority to a great number of States.

Senator RANDOLPH. How does that work, sir?

Mr. TRAIN. It works quite well. But let me just make this point—the 402 authority is directed to an effluent limitation program, built around best practical treatment, best available treatment, and essentially designed to deal with point source discharge.

We are talking about an animal of a considerably different quality when you are dealing with dredged and fill material. I would assume that the capability of States to deal with a dredge and fill permitting delegation, a desire of a State to assume such a delegation, and the resources of a State to undertake such a delegation, could differ substantially from what they may be doing under section 402.

Senator MUSKIE. Would the Senator yield?

Senator RANDOLPH. Yes, indeed.

Senator MUSKIE. Unless my own recollection of the structure of the 1972 Act was in error, we undertook to deal with point sources except under section 208, which was designed to begin the process of controlling what we felt we did not have sufficient knowledge to be more specific about nonpoint sources.

As I understand the approach to the section 404, you are using that to regulate not only point source discharges but to prohibit many forms of nonpoint discharges. So that you have converted section 404 into something which the Congress did not consider itself in a position to do with respect to nonpoint sources generally.

I take it that the authority to grant a permit includes the authority to deny a permit. Otherwise it is meaningless. So that if the effect of the permit required regulation is to impose your authority with respect to nonpoint sources of pollution or potential pollution, as reflected in various kinds of activities by farmers, foresters, and so on, that you reserve to yourself the right to prohibit that kind of activity, thus undertaking to control nonpoint discharges through a section of the law that quite clearly was designed primarily, if not exclusively, to deal with the discharge of a particular kind of point source pollution. That was dredge spoil.

The word fill, at least from this one Senator's perspective was not included for the purpose of expanding the authorities of section 404 as broadly as you and the courts have defined it.

Senator RANDOLPH. Senator Muskie, I subscribe to what you are saying on the fill situation.

Senator MUSKIE. The only reason we added the word fill was to make it clear that if the specific disposal site agreed upon by the engineers and EPA happened to be on land thus taking the form of fill, that there be no ambiguity on the question of whether or not it also was covered by section 404.

Now you have included, or appear to have included, under the definition of fill, for the purposes of section 404, all kinds of activities which might not involve fill that included toxic materials as such.

But I think it was you, Mr. Train, who said that fill by its own character, whether or not it contains toxic materials, may have an environmental changing effect that section 404 gives you the right to control.

I don't believe that was included in the intent of section 404. But in any case, the effect of that broad an interpretation is to give you a control over nonpoint discharges, or many kinds of nonpoint discharges, that the Congress did not presume to do with respect to the rest of the Clean Water Amendments of 1972.

Is this an erroneous analysis of what you are doing with these regulations?

Incidentally, I liked your articulation tonight of the purposes of the Clean Water Act of 1972. I think it was as articulate and clear a definition as I have ever heard of the 1972 Act. But that does not mean I follow your logic in extending it to section 404 as broadly as I have now tried to describe my impression.

Mr. TRAIN. Senator Muskie, far be it for me to debate with you the intent of this committee of the Congress in the act.

Senator MUSKIE. I have been around long enough to know actual congressional intent isn't necessarily what the court finds as congressional intent. I think that I have had that driven home to me too many times.

Mr. TRAIN. I think that is exactly the fact. I think we are carrying out a judicial interpretation of the language of the statutes, which I don't disagree with myself. I read the definition of point source discharge in the act, and it seems to me it certainly can include fill.

Senator MUSKIE. Let me ask you this specific question related to Senator Burdick. Let's take one of these farmers. In one spring it might be 4¾ acres, but the next spring it might be a heavier runoff and it is 5¼ acres.

I have that kind of situation in my State. I am sure Senator Burdick has it in his State. You could deny the farmer permission to create that farm pond, I take it, if it was 5¼ acres under your regulation.

Why else would you have a permit? Does it include the authority to deny the permit? Why would anybody want authority to get a permit?

Mr. TAFT. I think you have to dredge and fill first. If you make a barrier to collect it——

Senator MUSKIE. Suppose you just dredge a hole in your own farmland.

Mr. TAFT. You have to have the lake before you can dredge and fill. So I don't think you reach the point where you create a barrier to collect water.

Senator MUSKIE. Suppose you dig a hole and the stream fills it for you.

Mr. TAFT. The question is, are you damming a stream which is of sufficient flow?

Senator MUSKIE. That is exactly my point.

Mr. TAFT. Most stock ponds, at least the few I am aware of, they collect runoff. They don't stop a major stream.

Senator MUSKIE. We are not talking about major streams. You haven't limited yourself to major streams. You have limited yourself to a trickle or even a stream that exists only in the spring.

Senator BURDICK. You maintain jurisdiction over every trickle, don't you?

Mr. VEYSEY. No, Senator. I mentioned the limitation of 5 acres of a natural lake or pond. It is excluded below that size. A stream would have to have a normal flow in excess of 5 cubic feet per second.

Senator BURDICK. That is what we are talking about; good, clean water that comes down and the farmer traps to feed his animals. It is good, clean water. It is not polluted. So if it goes over 5 acres, he can't do it.

Mr. VEYSEY. No. It doesn't mean he can't do it. But he might be subject to a permit requirement, if it is over 5 cubic feet per second normal flow. It doesn't mean peak flow, but normal flow throughout the year.

Senator BURDICK. As the Senator from Maine said, we have different types of snowfalls. Some years you might have a pond of 4 acres; maybe some years a pond of 7 acres. It varies with the runoff.

It looks to me like the farmer is going to have to be pretty careful about his applications.

Senator MUSKIE. He will have to subscribe to the Farmers' Almanac.

Senator DOMENICI. Would Senator Muskie yield on that point? I would like to just raise another example of the situation.

Senator MUSKIE. I am always delighted to yield to you, Senator Domenici.

Senator DOMENICI. Let me change to the construction of bridges. I assume you have been confronted with that. I have a letter from the State Highway Department of the State of New Mexico. They plan to build a bridge along the Rio Grande River in New Mexico.

They have been studying it for 6 years. The Corps of Engineers told them, "Don't worry about it." They applied some years ago for a permit. No response. They feel it comes under your present power as interpreted by the court.

They are ready to go to bid. They have cleared 17 agencies with this bridge, including the regional office of the Environmental Protection Agency—but do not have a corps permit. They don't know when they open the bids if they can build a bridge.

It seems to me that we are talking about an issue of whether or not anyone intended 404 to cover that. You conclude and Mr. Train concludes that whether we did or not, you have got a pretty good permit system in place.

If I understand Mr. Train, he doesn't want to take it over because it is a very difficult proposition.

But what are we going to do about bridges in a dry State like New Mexico? Are they covered or not? You might say they are exempt. But I think the very power that exempts them means you have the power to do something about it. I think that is the issue.

We have to change the law. It can't be by exemptions when you have got a court opinion saying you have got control over everything.

I think that is the issue we have got. It covers farms. It covers everything we have talked about. Would you answer that question on bridges?

Mr. VEYSEY. Yes. I will attempt to. I don't know that specific bridge.

Senator MUSKIE. You do now.

Mr. VEYSEY. We lack, as you point out, the clear-cut authority to exempt particular actions, although they might be minimal in effect. We are recommending and requesting that that shortfall in the legislation be corrected, by providing the opportunity to exempt minor

actions and by making it clear also that our general permit authority will in fact hold up under any sort of a legal contest.

Highway work and bridge work I think will generally fall under the general permit category which we are attempting to implement. We would like that authority to be clearly written into the law.

Senator MUSKIE. Could I put another question, and then I am going to leave because I have to floor manage at 8:00 in the morning, and I will excuse my colleagues if they are a little late.

My farmers were telling me that they already are required under State law to do everything that your regulations here ask them to do. So now they have to do it twice. They have to go through the whole process of State agencies, and there are several because there are several State laws that are applicable, and then they have to come back and go through a whole process with you again.

They don't believe it was required under Section 404. I have told them I don't believe it was. So without any of the legislative preparation for the kind of policy that you are talking about—and the advantage of legislative preparation is that it alerts people to what is coming.

If the farmers of this country understood that Section 404 was going to have the implications for them that you are giving it, you wouldn't be hearing about it. We would have heard about it in hearings like this before the legislation was written.

If there were State laws that covered the same ground, that would have emerged in the course of those hearings. We would have taken it into account in writing the law.

With respect to the 1899 law, it isn't so long ago, Russell, that the administration wanted to write a whole water pollution control policy under the 1899 law. We wrote the 1972 law for the purpose of avoiding the administrative horrors that that created for you.

So you backed off the 1899 law, welcomed the 1972 law with open arms, and now you have returned to the 1899 law with the help of the courts in order to write a whole new kind of regulatory system that has created all of these problems; marching into areas already covered by State law, leaving farmers and foresters and others in doubt as to whether their legitimate activities are regulated.

This is what you have created with this thing. I don't think anybody on this committee challenges the concept of the hydrologic cycle. You read our language and are defining our commitment.

Now you have a permit system that we never envisaged covered activities we never had in mind, creating these problems which are creating a mess for everybody concerned, and confronting us with the legislative problem that we have only the vaguest outlines of a solution for. That is why we are here.

I don't question the good intentions. I don't question the motivations. As a matter of fact, I welcome the transformation of the Corps of Engineers to an environmentally sensitive agency, if that has actually happened.

I don't quarrel with any of this, except that I think it has been done with the wrong approach and the wrong way and with the predictable consequences: A considerable rebellion at the grass roots of the farming communities of this country.

With that, I don't really think I need to ask any more questions. I just waste time by doing so.

But I don't question the motivations. I appreciate the light that this hearing throws upon your actions and the reasons why you took them. I think it is important that the committee know that. I am sorry that I am going to miss the other testimony, which I know will also be helpful. But I have read some of it already.

Senator RANDOLPH. Don't miss my question, because I want you to hear it. Then you can run. I am delighted that we have reached that point at a quarter after nine where instead of calling him Mr. Train or Administrator, you just refer to him as Russell.

Senator MUSKIE. I forgot his last name.

Senator RANDOLPH. Mr. Train, and Secretary Veysey, I have a feeling we are approaching a situation of a 404 and a 402 permit being required for the same discharge. Do you think that is an overstatement?

Mr. TRAIN. Yes, sir; I do. I think I will ask my colleague to bail me out.

If there is one thing clear in this somewhat confused picture, it is that these two programs are mutually exclusive. When the 402 authority was written you did not want EPA permitting the Corps of Engineers' activities. So, therefore, something had to be done to exclude the Corps from the scope of EPA's 402 activities. Therefore, 404 was written.

And it was a court decision—not an administrative decision—that led to the Corps' jurisdiction under 404 being as broad as it is now being exercised.

Senator RANDOLPH. Mr. Train, I doubt that you realize the authority that you have under 402. What do you deem that authority to be? Where does it stop?

Mr. TRAIN. It does not cover the Corps of Engineers activities, as I understand it.

Senator RANDOLPH. Don't you regulate more of the Corps' activities under 404?

Senator DOMENICI. He doesn't; they do.

Senator RANDOLPH. Yes.

Senator MUSKIE. If it were not for section 404, may I say, if section 404 were not in the law, what authority would you have with respect to, say, dredging activities by the Corps? Would you have none?

Mr. TRAIN. I believe that we would be covering dredge and fill activities under 402.

Senator MUSKIE. Do you have authority under 402?

Mr. TRAIN. Right. I think we are all saying the same thing.

Senator RANDOLPH. That is correct.

Mr. TAFT. In fact, they don't interfere with the 404 program. They don't attempt to overlap. That may be administrative in the sense that if you abolished 404, 402 could reach some of the same activities.

Senator MUSKIE. They interfere in this sense: If you gave EPA sufficient authority in section 402 to do the whole job, why would it be assumed in section 404, which is worded as an exemption, that section 404 gave the Corps of Engineers like authority? Why would we go do a useless act of that kind? That is how it is being interpreted.

Mr. TAFT. I think under 404(c) you are concerned with habitat of fisheries, wildlife, shellfish beds, and so forth.

Senator MUSKIE. That is right. We did not want you to dump these poison dredge spoils off the bottom of the harbors onto those areas. But that doesn't mean that ERDA gave you broad authority, regulatory authority, with those habitats that we intended to give to EPA under section 402, section 208, and so on.

But you have interpreted the existence of those words in section 404 as giving you comprehensive authority over all those areas we were trying to protect against you.

Mr. TAFT. Section 402 would not let you consider whether you are putting fill into a shellfish bed.

Senator MUSKIE. Section 404 does.

Mr. TAFT. Correct.

Senator MUSKIE. But your interpretation of section 404 converts you from the protected against to the protected.

Mr. TAFT. We would protect against the filler.

Senator MUSKIE. But you are a filler. You are a dredger. You are an implementor of dredge policies and dredge programs. In section 404, we were trying to protect against your inclination prior to that time and those who worked under your contracts to deposit dredge fills in the wrong places from an environmental point of view.

You have interpreted that language which was designed to protect the environment against your activities as giving you authority to protect. You have put the fox in the chicken coop. That is what you have done. If in the meantime you have become a chicken maybe that has changed the situation.

Mr. VEYSEY. Let me say, Senator Muskie, I think there is one further difference with respect to section 402 and section 404 that hasn't been noted here.

Senator RANDOLPH. Don't make any "fowl" comment.

I am sorry. Please.

Mr. VEYSEY. You commented on the fact that some farmer might have to go through a parallel experience in certain States in getting a permit from the State.

In section 402, the authority was given to EPA to delegate that responsibility to the States. It was not provided in section 404. We are asking that that be provided because we feel that there are a number of States who would perform that admirably and many more would join them if they had the opportunity, and that should be delegated to the States themselves to grant the single permit. We have tried to accommodate that by working with the States insofar as possible. But the delegation authority is simply not there.

Senator MUSKIE. That may have to be part of the cure now, but that doesn't eliminate the disease.

Mr. Chairman, I hope you will excuse me.

Senator RANDOLPH. Yes. I am going to excuse all of us in just a moment. Let's think this through together. Is it agreeable to you, Mr. Reed, to place your statement in the record?

Mr. REED. Yes, sir.

Senator RANDOLPH. Questions the committee members would have could be addressed to you because of comments made. Would that be agreeable?

STATEMENT OF NATHANIEL P. REED, ASSISTANT SECRETARY OF THE INTERIOR FOR FISH AND WILDIFE AND PARKS

Mr. REED. That would be most agreeable, Mr. Chairman. I think if you take the books that we prepared for you which give you the seven eco-types, which are the major areas of contention. I hope that they will be of value to you. I am sure they will be because they lay out the areas and my statement explains exactly what areas are covered by what regulations. So that you get some relationship between the areas and regulations.

I would just like to emphasize in my statement that the loss of wetlands in this country has been alarming. It is my fervent hope that the committee will recognize the importance of wetlands to commercial and sport fisheries, which must be the determining point in your final consideration.

With that, Mr. Chairman, I am delighted to put the rest of my statement in the record.

[Secretary Reed's statement and a supplement follow:]

STATEMENT OF THE HONORABLE NATHANIEL P. REED, ASSISTANT SECRETARY OF THE INTERIOR FOR FISH AND WILDLIFE AND PARKS

Mr. Chairman, Committee Members, Dr. Train, Secretary Veysey, Mr. Taft, Ladies and Gentlemen:

Your invitation to appear before this committee to review the statutory basis for and implications of regulations implementing Section 404 of P.L. 92-500 is most welcome. The matters which you have committed to study are of immeasurable importance to the future of this nation's waters, the living resources which they support, and certain sectors of the United States economy. The Federal Water Pollution Control Act is clearly landmark environmental legislation. Comprehensive in scope and strategy for managing water quality, it establishes important national objectives in seeking the attainment of conditions adequate to the protection and propagation of fish, shellfish, and wildlife. These are prime indicators of ecological health and relate directly to the well-being of all of us.

The Corps of Engineers is presently implementing Phase I of its regulatory program under Section 404. By July 1, 1977, Phases II and III will be in effect, regulating the majority of wetlands I shall describe in my testimony with the possible exception of many bogs. The Cleveland-Harsha Amendment essentially would place the same regulations on wetlands as does the Corps Phase III program. However, it would further clarify certain language to insure that normal farming practices and maintenance of existing serviceable structures will not be encumbered through over-regulation.

Under the Wright Amendment, only those wetlands which are adjacent or contiguous to navigable waters as defined by their potential for commerical navigational purposes would be regulated by the Corps. All other wetlands would be regulated only at the option of the State Governor.

Part of our purpose in being here today is to examine Section 404 of the Water Act to determine whether it serves the intent of Congress in enacting the legislation, or whether amendments at this time are necessary or desirable in that context. Section 404 regulates, by permit, the discharge of dredged and fill materials. These discharges directly affect water quality whether they occur in a mainstem or in waters more remote. The discharged materials at issue include a variety of contaminants from industrial and municipal pollutants, pumpage and spillage from vessels, and contaminated runoff from agriculture and industrialized or urbanized areas. The environmentally sound disposal of these materials is necessary if our economic needs are to be met and at the same time we are to maintain the integrity of our aquatic resources.

The areas at issue do not relate singularly to navigable waters as traditionally defined, but to (1) the protection of fish and wildlife resources and (2) the maintenance of water quality. A classification scheme which separates waters into categories based on their usage vs. nonusage, by ship traffic can not protect much of our nation's wetlands that form interrelated and independent natural ecosystems.

This is precisely why the 404 program is so important. Through the 404 program we are able to regulate filling and disposal in waters not covered by the historical regulatory program which concerned itself primarily with navigational servitude.

In recent years the public has begun to recognize and appreciate that wetland ecosystems are of vital importance in satisfying human needs as well as essential environmental roles. Far beyond their necessity for the survival and well-being of countless plants and animals native to the Continental United States, wetlands play essential roles in many natural functions vital to man. For example, they retard the flow of water from the land, moderate flood flows, augment low flows, and help purify water by absorbing silt, pollutants, and nutrients that would otherwise degrade domestic water supplies, irrigation reservoirs, estuaries and other waters. Wetlands play a significant role in maintaining and recharging underground aquifers and buffer shorelines against storm tides and erosion. Hardwood timber production depends on wetland ecosystems in some areas, as do a wide variety of other flora and fauna. Wetlands also provide valuable learning laboratories for many educational institutions.

A great preponderance of all wetlands also provide recreational and esthetic values beyond calculation. Their importance to the perpetuation of both sport and commercial marine fisheries is undisputed—up to 90 percent of all marine finfish and shell fish depend upon coastal marshes and estuaries during some portion of their life cycles. Likewise, freshwater marshes are equally critical to many fish species inhabiting inland waters. Wetlands also provide vital habitat for a variety of other wildlife, including furbearers, a multitude of wading and shorebirds, and many of the song bird species. The importance of wetlands to wildlife and man can be better understood when we realize that many wetlands are three to four times more productive than other non-wetland habitat types.

These values have become well enough known through documentation, to convince a growing segment of the general public that wetlands must be protected from destruction.

I think it highly important that this committee and the public be given some appreciation of the types of "wetlands" not subject to regulation except under the 404 program and of the importance of these wetlands in terms of the nation's fish and wildlife resources. I will briefly describe seven major categories of wetland resources. We have prepared a short briefing booklet containing photographs of each of these wetland types with an accompanying description of the biological importance of these resources, and you may wish to refer to this material as I quickly touch upon each of the categories.

1. INTERIOR FRESHWATER MARSHES

These marshes are found predominantly in the upper midwest and the southeast in shallow lake basins, potholes, sloughs, and bordering open water.

In the west and upper midwest, flocks of greater sandhill cranes, trumpeter swans, mallards, teal, gadwalls, and snow and Canada geese use these marshes extensively for feeding and nesting.

In the south, large rookeries of herons, egrets, and ibis are found inhabiting these marshes. The southern marshes also are important wintering grounds for many species of migratory birds. Raccoons, muskrats, or red fox are examples of the inhabitants of northern marshes; while otter, bobcat, grey fox, opossum and marsh rabbits are common in the southern marshes. Interior freshwater marshes constitute important spawning and rearing grounds for freshwater fish and invertebrates which furnish food for numerous other species, including man.

The contribution of these marshes to the protection and propagation of fish and wildlife is monumentally important. They function as natural flood retaining reservoirs of tremendous value to downstream interests. And yet they are undergoing relentless alteration and encroachment as man reshapes the American landscape with his draglines and bulldozers.

The Corps of Engineers will fully regulate this encroachment when its Phase III program is implemented. The Cleveland-Harsha Amendment would also protect these marshes. The Wright Amendment would exclude them from any regulation other than that imposed by the involved State, unless the wetland is adjacent to navigable waters.

2. INTERIOR SALINE MARSHES

Interior saline marshes are found across the country but are primarily concentrated in our western States. These marshes may cover extensive areas and represent the most important waterfowl feeding and nesting grounds in the Pacific Flyway and are heavily used along the Central Flyway.

Snowy egrets, white ibis, black-crowned wiglet herons, whistling swans, and other species stop here to feed during migration and many remain to nest. Large numbers of waterfowl winter here. Numerous other species of fish and wildlife depend upon these marshes for their continued existence and survival. These marshes serve many other purposes, such as the regulation of freshwater inflows to estuaries and the maintenance of saline balances. But they too are undergoing increasing alteration. Intensive drilling of wells for groundwater is lowering water tables and leaving many of these saline marshes dry and no longer productive. Man still has a penchant for filling these marshes for industrial and residential sites.

These saline marshes are covered under the Corps of Engineers Phase II and Phase III programs for Section 404. They would also be protected if the Cleveland-Harsha Amendment is passed. However, there is no mention of interior saline marshes in the Wright Amendment and they therefore would be protected only under certain State regulations.

3. SWAMPS

Swamps constitute another vital wetland type in this country. Swamps are found along sluggish streams, on flood plains and in shallow lake basins. They occur in greatest abundance in the southeastern States and the Great Lakes States.

These wetlands support a wide variety of life forms, including a number of endangered species. The waters support populations of bass, bluegill and Catfish. Striped bass, an important commercial and sport fish, spawn in the shallows of many southern swamps.

Raccoons, beaver, river otters, bobcats, and white-tailed deer inhabit the wooded and shrub areas. Panthers, puma, and black bear can be found in southern swamps. Numerous waterfowl species including ring-necked ducks, wood ducks, pintails as well, and wading birds such as herons, egrets, and ibis rely on these swamps for food and shelter. Wooded swamps become particularly important in years when lack of sufficient fall and early winter rains leave overflow areas dry. At such times, these swamps represent the only shallow water available over wide areas.

Our nation's swamps are monumentally important in maintaining groundwater levels. They contribute importantly to water quality by taking up many pollutants through marsh plants. They are threatened by many deleterious practices such as drainage, filling and their use for improper solid waste disposal.

Some swamps are presently covered under the Corps of Engineers Phase I program and the remaining swamps will be covered with the implementation of Phases II and III of the 404 program. The Cleveland-Harsha Amendment would also protect these wetlands. Under the Wright Amendment only those swamps adjacent to navigable waters would be protected. The remaining swamps would have to come under State regulation—mostly non-existent in the majority of states.

4. SHALLOW PONDS AND POTHOLES

Shallow ponds and potholes are found in all sections of the country but are localized in the upper midwest and the southeast. During mid- and late summer as permanent marshes begin to dry out, these shallow ponds and potholes are heavily used by wildlife. Waterfowl use these areas extensively for nesting and feeding during the migration.

Racoons, otters, bobcats, white-tailed deer and numerous other species feed and find cover along the shorelines. The American alligator is a common inhabitant of many southern ponds. These ponds and potholes support many species of fish and invertebrates that are critical in the food chain.

By the completion of Phase III of the Corps of Engineers implementation program for Section 404, all of these shallow ponds and potholes will be under protective regulation. They will also be protected by the proposed Cleveland-Harsha Amendment except where they relate to normal farming practices. The Wright Amendment proposed to give the States regulatory authorities for the majority of these ponds and potholes.

5. BOGS

Bogs are found primarily on the east coast and in scattered concentrations in the Great Lakes States. These wetlands provide key habitat for mammals and amphibians and in New England are very important for waterfowl production. Maine classifies over 25,000 acres of bogs as being of primary importance to that State's waterfowl.

In recent years we have seen a great decline in black duck populations. Northern bogs provide important nesting and feeding habitat for the species. Ring-necked ducks regularly inhabit these bogs while golden eye and the hooded merganser have been found with broods in New England bogs.

During dry periods when water levels in other wetland areas are falling, wildlife flock to these bogs for the green vegetation and the nutrients which are stored in the sediments. Due to their pristine environments, many of these bogs are becoming increasingly threatened from developments for housing and resorts.

The Corps of Engineers Phase III program may regulate some of the bogs. It would appear that neither the Cleveland-Harsha Amendment nor the Wright Amendment will place bogs under the jurisdiction of the 404 program.

6. NON-NAVIGABLE STREAMS AND TRIBUTARIES

Perhaps the most valuable wetland type of all is non-navigable streams and tributaries. Inland streams and tributaries carry most of the surface water found in this country. They arise from surface runoff, springs, and seepage areas, or as outlets from ponds and lakes. The majority of these streams are non-navigable due to their capacity, water velocity, intermittent falls, and myriad obstructions. Nonetheless, these waters are of tremendous value for fish, mammals, birds, and amphibians. Many of the woodlands nourished by these waters are important remaining natural wood stands. These waters are a vital source of oxygen and nutrients for larger bodies of water. Conversely, their contamination can offset the closest regulation of receiving waters. The complex currents and the naturally occurring pool-riffle-slackwater sequence allows for a diversity of flora and fauna, which would disappear if this environment were altered. Anadromous salmonids migrate thousands of miles to the smallest streams and tributaries to spawn. Some of these streams are so shallow that at times spawning fishes are not even completely covered by water. The characteristics of the fast flowing stream are vital for the survival of these species which constitute an enormous sport and commercial fishery of great economic and cultural value.

Birds, both game and non-game, use the shoreline vegetation for resting, nesting, and feeding grounds. Many mammals find their niches along the stream bank. White-tailed deer browse on the lush vegetation and find protective cover from predators. Brown bears find their greatest source of nourishment in these streams.

The extensive 1971 Hearings of Congressman Reuss and his subcommittee of the House Committee on Government Operations documented the ongoing devastation of this nation's non-navigable streams and tributaries. Under the existing 404 program we at last have the tools with which to salvage what remains of this once vast resource.

The Corps of Engineers will regulate these streams through its Phase II and III program of Section 404. The Cleveland-Harsha Amendment would also place these streams under Corps regulation. The Wright Amendment, if enacted would make regulation of these streams a State option, and thus not assure the needed protection.

7. COASTAL FRESHWATER MARSHES

Another class of wetlands of great ecological importance is the coastal fresh marshes and coastal open fresh waters which lie landward of many of the saline and brackish coastal marshes of the gulf and Atlantic coasts. Only a tiny fraction of these wetlands is classified as traditionally navigable waters.

These marshes provide essential habitat for migratory waterfowl and wading birds. During the early spring months in the north, black ducks, blue-winged teal, mallards and gadwalls nest on the marsh, while herons, egrets, ibises and avocets feed in the pools. Many species winter in these areas, including large flocks of ducks, snow geese, Canada geese and whistling swans.

Along the gulf coast, dabbling ducks, blue and snow geese, herons, egrets, and ibises can be found feeding and nesting in the marsh. They accommodate for furbearing animals such as raccoons, muskrats, cottontails, otters and mink.

Coastal fresh waters are highly productive of fishes and shellfishes, including many that are ultimately taken in estuarine and ocean waters. The majority of the commercial U.S. fish catch (1.66 billion pounds in 1975) is comprised of species dependent upon estuaries and associated coastal marshes. For the period 1960–1968, estuarine-dependent species comprised about 98 percent (by poundage) of the catch. I cite you to the intent of Congress in enacting the 200 mile limit in relation to these facts. The species contributing to this harvest include the brown, white, and pink shrimps, menhaden, spot, Atlantic croaker, striped mullet, black drum, and red drum. Other important commercial species include the American oyster, blue crab, and the spotted sea trout.

The waters are important nursery grounds for saltwater fish and the interface between the salt and fresh water marsh is vital for shellfish production.

Together with downstream brackish and saline wetlands, these waters form a complex coastal wetlands ecosystem, all parts of which are linked together and energized by flows of water and of nutrients. The degradation and destruction of the freshwater wetlands of this system reduce the vitality and productivity of the saline and brackish components. If we are to reach the national goals of the Water Act, it is essential that the conservation and development of these wetlands be accomplished through a comprehensive and consistent regulatory strategy that includes *all* elements of the coastal wetlands.

These areas are presently being seriously threatened by industrialization and urbanization. Roads, for example, are being constructed through the marshes, restricting vital flows of water and nutrients. In a number of States the "high marsh areas" that lie above the Corps of Engineers historic jurisdiction are being lost to development at a truly frightening pace.

These coastal marshes will come under the regulations of the Corps of Engineers through its implementation of Section 404, and would be regulated by the Cleveland-Harsha Amendment. The Wright Amendment would leave the regulation of the majority of these waters up to the States and again does not insure the protection of these critical areas.

I think you can see from this abbreviated discussion that many waters have little relationships to commercial navigation, but are essential to the protection and propagation of fish, shellfish, and wildlife, and contribute very significantly to water quality. Most certainly, the objective of the Water Act and its stated goal for protection and propagation of fish, shellfish and wildlife cannot be achieved by a Section 404 program which fails to regulate disposal of dredged and fill materials in the seven categories of wetlands discussed above.

Critics of the Section 404 program have cited its potential for over-regulation. Certainly that potential is present. Without a practicable means to identify and regulate classes of routine and nondestructive activities, there is a real danger that the program could be overwhelmed by red tape, bogged down by unconscionably long delays, and distracted from its real mission of effectively regulating activities that seriously degrade water quality and unreasonably impair fish and wildlife protection and propagation.

The Section 404(b) guidelines provide a useful and effective means for screening permit applications to eliminate unnecessary chemical and biological analyses of dredged or fill materials.

They provide for the exemption of certain normal agricultural, silvicultural, ranching, navigation, and transportation activities from the individual review of a host of routine, noncontroversial, and environmentally innocuous actions. The Cleveland-Harsha Amendment would legislate exemptions of this type. A provision of this nature would appropriately express Congressional sanction for a logical approach to avoidance of over-regulation.

Because of the geographical scope of the Section 404 program, it is inevitable that other classes of minimal impact activities will be identified. The current general permit program provides a reasonable alternative means whereby these activities can be regulated without requirement for separate permit reviews.

The U.S. Fish and Wildlife Service informs me that general permits issued to date by some Districts have measurably reduced the routine paperwork associated with review of minor permit applications, and have thus provided much needed additional time for review of applications which require closer study.

Reasonable guidelines, specific activity exemptions, and general permits provide logical and workable means to avoid over-regulation without frustrating the fundamental objective of the Federal Water Pollution Control Act. We do not believe that the Act's objective can be attained by carving away major portions of geographical jurisdiction or by providing optional permit programs that might well result in fragmented, inconsistent, or intermittent regulation of disposal activities in major aquatic systems.

As you know, during consideration of amendments to the Federal Water Pollution Control Act in the House of Representatives, we strongly supported the Cleveland-Harsha amendment. Unfortunately, that amendment was not accepted. Presently the Administration has this issue under review but no new specific position has yet been promulgated. Any new position should, however, offer proper protection to the vital resources which I have discussed while avoiding over-regulation and burdensome permit requirements.

Department of the Interior Briefing Supplement on Wetlands Relative to Proposed Modifications of Section 404 of the Federal Water Pollution Control Act

Importance of Wetlands

In recent years the public has begun to recognize and appreciate that wetland ecosystems are of vital importance in satisfying human needs as well as essential environmental roles. Far beyond their necessity for the survival and well-being of countless plants and animals native to the Continental United States, wetlands play essential roles in many natural functions vital to man. For example, they retard the flow of water from the land, moderate flood flows, augment low flows, and help purify water by absorbing silt, pollutants, and nutrients that would otherwise degrade domestic water supplies, irrigation reservoirs, estuaries and other waters. Wetlands play a significant role in maintaining and recharging underground aquifers and buffer shorelines against storm tides and erosion. Hardwood timber production depends on wetland ecosystems in some areas, as do a wide variety of other flora and fauna. Wetlands also provide valuable learning laboratories for many educational institutions.

A great preponderance of all wetlands also provide recreational and esthetic values beyond calculation. Their importance to the perpetuation of both sport and commercial marine fisheries is undisputed--up to 90 percent of all marine finfish and shellfish depend upon coastal marshes and estuaries during some portion of their life cycles. Likewise, freshwater marshes are equally critical to many fish species inhabiting inland waters. Wetlands also provide vital habitat for a variety of other wildlife, including furbearers, a multitude of wading and shorebirds, and many of the song bird species. The importance of wetlands to wildlife and man can be better understood when we realize that many wetlands are three to four times more productive than other non-wetland habitat types.

These values have become well enough known through documentation, to convince a growing segment of the general public that wetlands must be protected from destruction.

The Corps of Engineers is presently implementing Phase I of its regulatory program under Section 404. By July 1, 1977, Phase II and III will be in effect, regulating the majority of wetlands with the possible exception of many bogs. The Hart Amendment essentially would place the same regulations on wetlands as does the Corps Phase III program. However, it would further clarify certain language to insure that normal farming practices and maintenance of existing serviceable structures will not be encumbered through overregulation.

Under the Wright Amendment, only those wetlands which are adjacent or contiguous to navigable waters as defined by their potential for commercial navigational purposes would be regulated by the Corps. All other wetlands would be regulated only at the option of the State Governor.

Public Law 93-205 stipulates that no Federal agency may authorize any undertaking which would further degrade an endangered or threatened species population or its critical habitat. If the Wright Amendment is accepted, thus giving a great deal of permitting authority to the State Governor, these populations may risk further depletion.

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California Freshwater Marsh



Canada Geese on Maryland
Freshwater Marsh



WETLAND CATEGORIES

Marsh

Marshes are found predominantly in the Upper Midwest and the Southeast. These wetlands are used extensively by waterfowl for nesting and feeding habitat. The deeper marshes are considered to produce the best breeding habitat in the country.

Marsh soil may be waterlogged or covered with as much as three feet of water. Marshes are found in shallow lake basins, potholes, sloughs, and bordering open water. Vegetation is restricted to plants that can tolerate submerged conditions and organic soils, and include cattails, bulrushes, spikerushes, and wild rice in shallow areas and, pondweeds, naiads, watermilfoils, waterweeds, waterlilies, and spatterdocks in open areas. Water-hyacinth and water primrose form surface mats in some localities in the southeast.

The primary production of organic material in marshlands may frequently be three to four times that of forest ecosystems. Corresponding levels of production would be difficult if not impossible to attain in other habitat types even under intensive management. This production is utilized by a variety of animals including migratory species.

In the West and Upper Midwest, flocks of Greater Sandhill Cranes, Trumpeter swans, mallards, American widgeon, seals, gadwalls, snow and Canada geese may be seen nesting in the marshes. Large rookeries of herons, egrets, and ibises are found in the South. The southern marshes are also important wintering grounds for many species of waterfowl including snipe, Greater Sandhill Crane, and several endangered species including the southern bald eagle.

The marsh habitat supports a large muskrat population which feed upon leaves and roots. The mink is the chief predator found in the marsh.

Raccoons and red fox inhabit the marshes of the North while otter, bobcat, grey fox, opossum and marsh rabbit are common in the South. The threatened American alligator is also a common resident of the southern marshes. Urban encroachment on these marshes is increasing across the country.

Interior Salt Marsh in Utah



Interior Open Salt Marsh
in Colorado



Interior Saline Waters

Interior saline waters are found across the country, but are primarily concentrated in our western States. They may cover extensive areas locally, and represent the most important feeding and nesting grounds for migrating birds in the Pacific flyway, but are also heavily used along the Central flyway.

Water levels range from waterlogged soils to open waters several feet in depth. The vegetation consists mainly of salt tolerant plants such as seablite, saltgrass and saltbrush in the shallow waters and hardstem bulrushes, wigeongrass and sago pondweeds in the deeper waters.

The inhabitants of these areas vary from season to season. Snowy egrets, white ibis, black-crowned night herons, whistling swans, gadwalls, redheads, and mallards stop here to feed on their spring migration North and many remain to nest. Large numbers of canvasback, baldplate, mallard and goldeneye winter here. The bald eagle feeds here in the winter months along with the peregrine falcon, both endangered species.

Intensive drilling of wells for ground water has increased the number of saline waters which have become dry. Any action to fill these areas will add significantly to the loss of this valuable habitat.



Cypress Swamp in
North Carolina

Michigan Swamp



Swamps

The southeastern states and the Great Lake states have the densest swamp concentrations in the country. These swamps are used by waterfowl for nesting and feeding grounds in the North and for roosting and feeding grounds in the Southeast. In the Southeast, wooded swamps become particularly important in years when lack of sufficient fall and early winter rains leave overflow areas dry. At such times, these swamps represent the only shallow water available over wide areas.

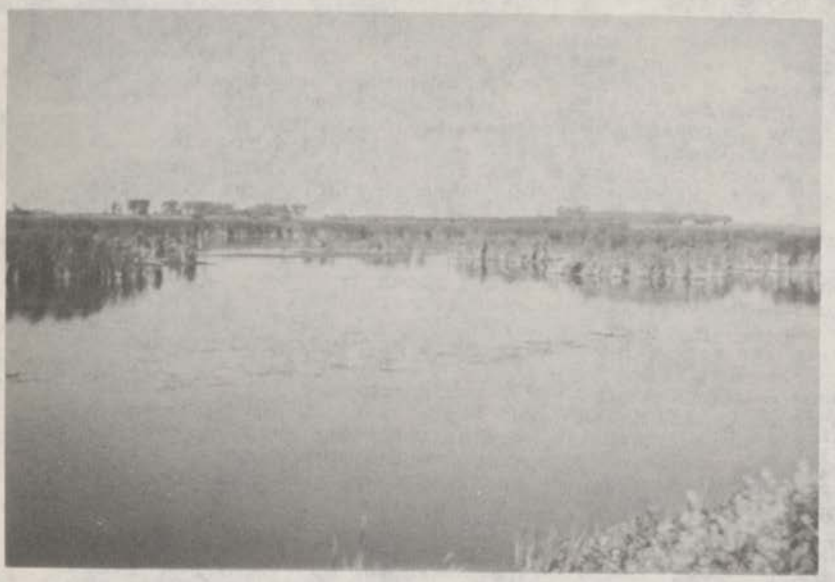
Swamps are found along sluggish streams, on flood plains, and in shallow lake basins. The water level ranges from waterlogged soils to standing water depths of up to one foot. The vegetation varies from shrub swamp to wooded swamp. Shrub swamps include alders, willows, dogwoods, and swamp privet with numerous types of berry producing bushes.

Wooded swamps in the North are composed of tamarack, black spruce, cedar, balsam, red maple, willow, and black ash. In the South, the main species are water oak, gum trees, with cypress being dominant. Wooded swamps are usually accompanied by a ground cover of mosses, duckweeds or smartweeds.

Swamps support a wide variety of life including endangered and relatively uncommon species. The waters support populations of bass, bluegill, and catfish. Striped-bass, an important commercial and sport fish spawn in the shallows of many southern swamps. Raccoon, beaver, river otter, bobcat, and white-tailed deer inhabit the wooded and shrub areas. Cougar, and black bear can be found in the South along with the threatened American alligator and the endangered Florida everglade kite. Numerous waterfowl species including ring-necked duck, wood duck, pintail, teals, egrets, herons, ibises, and osprey feed in these swamps and many winter in the southern states.

Swamps are threatened by many practices such as improper solid waste disposal and construction of sites for cottages.

Rush Lake, North Dakota



Florida Water Lettuce Pond



Inland Open Fresh Water

These shallow ponds and potholes are found in all sections of the country but are most abundant in the Upper Midwest and Southeast. Wildlife productivity in these waters far exceeds that found in lakes due to the variety of micro-habitats, types and amount of food, and myriad vegetation. Across the country, these areas serve as feeding areas during waterfowl migration and nesting habitat for several species. During mid and late summer in the Upper Midwest, less permanent marshes begin to dry out and pool areas are then heavily utilized.

The water level is usually less than ten feet deep and is fringed by a border of emergent vegetation. In the Upper Midwest, this vegetation includes hardstem bulrushes, cat-tail, golden duck and arrowhead. Duckweed, water lettuce, and sawgrass are the predominant species in the South.

These shallow pools are used as resting and feeding grounds by mallard, pintail, teal, gadwall, and shovelers, especially during the migration period. Large populations of canvasback and redheaded ducks find needed nesting grounds in Upper Mid-western ponds. Raccoon, otter, bobcat and white-tailed deer feed and find cover along the shorelines. The threatened American alligator inhabits ponds in the South. Numerous fish species can be found in these waters including catfish, bluegill and bass. For many of these fish species, the shoreline vegetation is an important factor in survival since this is where they spawn.

Indiana Tamarack Bog



Shallow Bog in Michigan



Bogs

Bogs are found primarily on the east coast and in scattered concentrations in the Great Lake States. Bogs provide habitat for mammals and amphibians, and in New England are very important for waterfowl production. In Maine alone 25,000 acres are classified as being of primary importance for waterfowl.

Bog soils are usually waterlogged and support a spongy covering of mosses, however, standing water a few feet in depth may be found in some areas. Numerous shrub types have become particularly adapted to the bog habitat. Their leaves are thick and retard water loss. This is vital since these shrubs are exposed to very high temperatures as a result of intense solar radiation. Leatherleaf, bog laurel, and tetter bush are representative of these adapted species. Other vegetation includes labrador-tea, cranberries, corex, and cottongrass in the North and cyrilla, persea, pond-pine and pitcher-plants in the South. Scattered, often stunted populations of black spruce, birch, ash, and tamarack may be found on the borders of bogs.

In recent years, we have seen a great decline in black duck populations. Northern bogs provide important nesting and feeding habitat for this species. Ring-necked ducks also regularly inhabit bogs, feeding on submergent plant food and nesting in leather-leaf. Goldeneye and the hooded merganser have been found with broods in New England bogs. Shrub bogs are used in the fall as waterfowl staging grounds. Warblers are the most abundant nongame bird species inhabiting these ares. White-tailed deer and grouse feed and nest along the borders of bogs. Moose also feed in these areas in the North. Bluegill, northern pike, bullhead, yellowperch and mudminnows are able to live in this low oxygen environment.

During arid periods when other wetlands are becoming dry, wildlife will flock to these bogs for green vegetation and the nutrients which are stored in the sediments.

Due to the pristine environment in which these bogs are located, they are increasingly becoming subject to develop-ment for housing and resorts.

Stream in Shenandoah Valley



Red Salmon in Alaskan Stream



Non-Navigable Streams and Tributaries

Inland streams and tributaries carry the majority of surface water found in this country. They arise from surface runoff, springs and seepage areas, or as outlets from ponds and lakes. The majority of these streams are non-navigable due to their water velocity, intermittent falls, and myriad obstructions. Nonetheless, these waters are of tremendous value for fish, mammals, birds, insects, and amphibians. Many of the woodlands nourished by these waters represent the last remaining natural wood stands. These waters are a source of oxygen and nutrients for larger bodies of water.

The complex currents and the naturally occurring pool-riffle-slackwater sequence allows for a diversity of flora and fauna, which would disappear through species competition if the environment was altered. This is especially true for trout which feed in the riffles and find shelter in the pools. Anadromous salmonids migrate thousands of miles to the smallest streams and tributaries to spawn. The characteristics of the fast flowing stream are vital for the survival of these species which support an enormous sport and commercial fishery. Various minnows and darters depend on stream velocities which maintain high oxygen levels and carry their food supply.

Although the organic productivity of non-navigable streams can vary from high (eutrophy) to low (oligotrophy), freshwater ecosystems support a relatively complex food web for top carnivores such as salmon and trout. This increased complexity of links in the food web results in increased stability of stream communities. Simplification of this type of aquatic system usually results in decreased stability and periodic declines in production of carnivores.

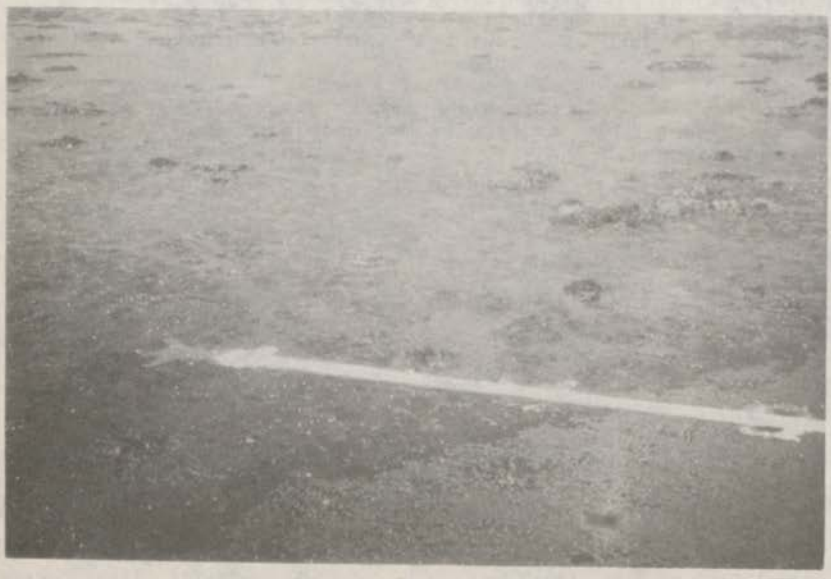
Birds, both game and non game species, use the shoreline vegetation for resting, nesting and feeding grounds. Many animals find their niches along the stream bank. White-tailed deer browse on the lush vegetation and find protective cover from predators. Brown bear find their greatest source of nourishment in these streams.

The loss of these streams will mean the loss of many species which are adapted to particular microhabitats found in the stream environment.

Snow Geese on Virginia
Coastal Fresh Marsh



Road Constructed Through Florida
Coastal Fresh Marsh



Coastal Fresh Water Marshes

Coastal fresh water marshes are heavily concentrated along tidal rivers, sounds and deltas on the mid-Atlantic and Gulf coasts, but are also found on the coasts of Alaska and California. Approximately four fifths of these wetlands occur in Louisiana. These marshes are used moderately for nesting in the North Atlantic and Pacific Coastal States. Along the Gulf coast these wetlands are most heavily used during the winter season by migratory species. The deeper marshes are extremely important for waterfowl utilization.

The water levels range from waterlogged soils to open water marshes several feet deep. In the shallow waters; reeds, cordgrass, spikerushes, sawgrass and cattails abound. In deeper waters the vegetation is mainly cattails, wildrice, pickerelweed, cutgrass and pondweeds. In the Gulf region, water-hyacinth, alligatorweed, and waterlettuce may produce surface mats.

During the early spring months in the North, black ducks, blue-winged teal, mallards and gadwalls nest on the marsh, while herons, egrets, ibises and avocets feed in the pools. Many species winter in these areas, including large flocks of ducks, snow geese, Canada geese and whistling swans. Along the Gulf coast, dabbling ducks, blue and snow geese, herons, egrets, and ibises can be found feeding and/or nesting in the marsh.

The marshes support various species of mammals such as raccoon, muskrat, cottontail, otter, and mink. In the South, the American alligator is also found in these waters.

The waters are important nursery grounds for saltwater fish and the interface between the salt and fresh water marsh is vital for shellfish production.

These areas are presently being seriously threatened by industrialization and urbanization. Roads are being constructed through the marshes, restricting the vital flow of water and nutrients and opening new areas to incursions.

Senator MUSKIE. May I say, Mr. Chairman, that is an excellent presentation. I glanced through it as I listened to the testimony. It is a valuable part of the testimony.

Mr. REED. Thank you.

Senator RANDOLPH. Thank you very much, Mr. Reed. No element of this subject matter is going to be pushed aside from our considerations.

Mr. REED. I know that, sir.

Senator RANDOLPH. Mr. Taft?

STATEMENT OF PETER R. TAFT, ASSISTANT ATTORNEY GENERAL, LAND AND NATURAL RESOURCES DIVISION

Mr. TAFT. Mr. Chairman, I would abide also by the same ground rules.

[Mr. Taft's statement follows:]

Department of Justice

STATEMENT

OF

PETER R. TAFT
ASSISTANT ATTORNEY GENERAL
LAND AND NATURAL RESOURCES DIVISION

BEFORE

THE

COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE

CONCERNING

WATER POLLUTION ACT
(PL 92-500)

ON

JULY 27, 1976

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Mr. Chairman, I am Peter Taft, Assistant Attorney General of the Land and Natural Resources Division of the Department of Justice. I appreciate the opportunity to meet with your Committee and to testify concerning the implementation of Section 404 of P.L. 92-500, the 1972 Amendments to the Federal Water Pollution Control Act.

The Department of Justice is now, and has been for many years, vitally concerned with the protection and preservation of our water resources. A major objective of the Department of Justice has been the protection of our waters from pollution and from destruction by unauthorized dredging, and filling operations. To accomplish this end, we created in October 1970 the Pollution Control Section within the Land and Natural Resources Division whose sole function is to coordinate and supervise the Department's efforts in protecting our water and air resources.

We have been especially concerned with the preservation of vital wetlands resources, and have given a program to protect these wetlands top priority within the entire Department of Justice. Until recently, our efforts have centered upon enforcing Sections 10 and 13 of the Rivers and Harbors Act of 1899. The passage of P.L. 92-500, and particularly Section 404 thereof, with its broad jurisdictional coverage of all waters of the United States has added appreciably to our ability to protect these invaluable natural resources. It has been especially important in allowing us to prevent the unauthorized destruction of inter-tidal wetlands and other areas of ecological importance which, while located physically above the line of mean high water, are nevertheless, by any realistic standard, an integral and necessary part of a properly functioning water ecosystem.

I understand that this is an oversight hearing on our activities in carrying out Section 404 of the Federal Water Pollution Control Act (FWPCA), but with particular emphasis on the impact of proposed House amendments to Section 404 which would radically affect the Section 404 program. Allegations have been made that the Corps of Engineers' regulations under Section 404 will

cause unwarranted interference with traditional farming, silvaculture, and other localized activities, and, as such, constitute federal land use planning. It has been further alleged that the Corps' objectives of water quality and environmental review during the permit stage are a creation of the courts rather than Congress and transcend the constitutional basis for regulation of navigable waters. Both these allegations are in error, but their treatment requires a full background on the constitutional, statutory, and judicial development of laws affecting the waters of the United States.

The antecedents of our national interest in water resources extend back to the Magna Charta in England in 1215 when public rights of passage and fishing were recognized in public waters. The Common Law of England, as adopted in this Nation, clearly recognized that navigable (i.e., public) waters were not susceptible to private ownership, but were held by the Crown as trustee for the benefit of the whole nation. See Martin v. Waddell, 41 U.S. (16 Pet.) 367 (1842). With the independence of the United States, these same public rights were passed as an attribute of sovereignty, to the extent of its delegated powers. Over 150 years of Supreme Court

decisions have served to define and explain the federal interest in the public waters. It was early recognized, however, that the Commerce Clause of the United States gave to Congress the overriding power to regulate and protect the public waters of the Nation. In Gilman v. Philadelphia, 70 U.S. 713 (1865), the Supreme Court held, in language often since repeated:

> Commerce includes navigation. The power to regulate commerce comprehends the control for that purpose, and to the extent necessary of all the navigable waters of the United States . . . . For this purpose they are the public property of the Nation; and subject to all the requisite legislation by Congress. This necessarily includes the power to keep them open and free from any obstruction to their navigation, interposed by the states or otherwise . . . . For these purposes, Congress possesses all the powers which existed in the states before the adoption of the national Constitution, and which always existed in the Parliament in England.

In 1871, in The Daniel Ball, 77 U.S. 10 Wall. 557, the Court laid down the general rule that, as modified, continues to this time, to determine whether waters are navigable:

> Those rivers must be regarded as public navigable rivers that are navigable in fact and they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition as highways for commerce.

In 1921, this was interpreted to include all waters which had ever served as waters of commerce in the past, the so-called test of historic navigability. In Economy Light & Power Co. v. United States, 256 U.S. 113 (1921), the record reflected that the Desplaines River in Illinois had been used until 1825 to transport furs and supplies by canoe, but had not been used since. Nonetheless, the Court found it navigable, stating:

> A river having actual navigable capacity in its natural state and capable of carrying commerce among the states, is within the power of Congress to preserve for purposes of future transportation, even though it be not at present used for such commerce. . . . If they are to be abandoned, it is for Congress, not the Courts, so to declare.

Congressional authority is not limited to controlling the navigable waters themselves. In the exercise of its regulatory power, Congress can reach activities in both non-navigable streams and on dry land which adversely affect navigable waters. In United States v. Rio Grande

Irrigation Co., 174 U.S. 690 (1899), the defendant proposed to dam the non-navigable upper reaches of the Rio Grande and divert its waters to irrigation. The Court held that the district court should enjoin the dam under a predecessor of Section 10 of the Rivers and Harbors Act of 1899 if it were shown that loss of these waters would endanger the "navigable capacity" of the lower Rio Grande. See also, Oklahoma v. Atkinson, 313 U.S. 508 (1941); United States v. 531.13 Acres of Land, 366 F.2d 915 (4th Cir. 1966). With respect to dry land, Section 13 of the Rivers and Harbors Act of 1899 prohibits the placing of refuse on the banks of navigable waters which is likely to be washed into them in the ordinary course. See also United States v. Coombs, 37 U.S. 634 (12 Pet. 72) (1838) involving a criminal prosecution wherein the Court stated:

> The power to regulate commerce, includes the power to regulate navigation, . . . It does not stop at the mere boundary line of a state, nor is it confined to acts done on the waters or in the necessary course of the navigation thereof. It extends to such acts done on land, which interfere with, obstruct, or prevent the due exercise of power to regulate commerce and navigation with foreign nations and among the states.

Moreover, the federal interest in its waters dominates all conflicting interests, state, local, or private, whether based on riparian property interests, river or sea bed interests, or otherwise. As the Supreme Court stated in the leading case of United States v. Appalachian Power, 311 U.S. 377 (1940):

> The Federal Government has domination over the water power inherent in the flowing stream. It is liable to no one for its use or non-use. The flow of a navigable stream is in no sense private property; 'that the running water in a great navigable stream is capable of private ownership is inconceivable.' Exclusion of riparian owners from its benefits without compensation is entirely within the Government's discretion.

See also United States v. Chandler-Dunbar Co., 229 U.S. 53 (1913); United States v. Rands, 389 U.S. 121 (1967) ("The proper exercise of this power is not an invasion of any private property rights in the stream or the lands underlying it.")

This domination is often described as a property interest. Gilman v. Philadelphia, 3 Wall. 713 (1865) ("For this purpose they are the public property of the nation"). As such, it is often referred to as a "dominant servitude",

FPC v. Nigara Mohawk Power Co., 347 U.S. 239 (1954) or a navigational servitude. However, it is more simply described as the overriding right of regulation and control under the Commerce Power which surpasses the normal limitations of a property right.

Although many of the early cases and the Rivers and Harbors Act of 1899 dealt primarily with navigation per se, the doctrine has never been so limited. This issue was squarely presented in United States v. Appalachian Power Co., supra, where the company objected to an FPC license for a private dam on a navigable river which included conditions not related to navigation. The Court rejected the argument, stating:

> By navigation respondent means no more than operations of boats and improvement of the waterway itself. In truth the authority of the United States is the regulation of commerce on its waters. Navigability in the sense just stated is but a part of this whole. Flood protection, watershed development, recovery of the cost of improvements through utilization of power are likewise parts of commerce control. . . . The authority is as broad as the needs of commerce.

The Flood Control Act of 1917 spoke in terms of the development of water power and other "properly and related" uses as well as navigation. One of the related

uses of the waters of the United States has been for the development and maintenance of its fisheries. The U.S. Fish Commissioner, the forerunner of the Bureau of Fisheries and Fish and Wildlife Service, was created by Joint Resolution No. 22, adopted on February 9, 1871, based upon the congressional finding that "the most valuable food fishes of the coast and lakes of the United States are rapidly diminishing in number, to the public injury, and so as materially to affect the interests of trade and commerce". He, and the succeeding agencies, have been required to report annually to Congress on the status of fisheries. 16 U.S.C. § 744. Since 1934 any impoundment of water by a federal agency or under its permit has required consultation with the Bureau of Fisheries (now the Fish and Wildlife Service) to assure that provisions are made for wildlife resources and especially migratory fish. 16 U.S.C. § 661 et seq. The Secretary of Commerce has been authorized since 1938 to conduct experiments, construct necessary devices, and engage in any other necessary activities to maintain the salmon fisheries in the Columbia River and its tributaries. 16 U.S.C. § 756. Many fish hatcheries have been authorized. 16 U.S.C. § 760 et seq. For the many

other fisheries statutes relating to the waters of the United States, see generally, Chapters 9-10D, 13-21C of Title 16 of the U.S. Code.

Pollution of navigable waters also received early congressional attention. One of the earliest refuse statutes was the Act of June 29, 1888, 33 U.S.C. § 441, outlawing the discharge in New York Harbor of "refuse, dirt, ashes, cinders, mud, sand, dredgings, sludge, acid, or any other matter of any kind . . ." This was held applicable to oil spills irrespective of effect on navigation in the early cases of The Albani, 30 F.2d 727 (S.D.N.Y. 1928) and The Colombo, 42 F.2d 211 (2d Cir. 1930).

More famous, however, is Section 13 of the Rivers and Harbors Act of 1899, commonly referred to as the Refuse Act, which has always been directed in part to pollution control. The Refuse Act provides that it is unlawful to discharge from ship or from shore

> [a]ny refuse matter of any kind or description whatever . . . into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water.

In United States v. Alaska Southern Packing Co., 84 F.2d 444 (9th Cir. 1936), the court held that the Act prohibited

discharges of oil in navigable waters even though it in no way impeded or obstructed navigation, relying in part on the earlier interpretations of the 1888 Act. Accord: Dollar S.S. Co. v. United States, 101 F.2d 638 (9th Cir. 1939) (involving "cabbage, orange peel, celery and tea leaves" -- i.e., garbage); United States v. Ballard Oil Co., 195 F.2d 369 (2d Cir. 1952) (oil spill). These interpretations were ultimately affirmed by the Supreme Court in United States v. Standard Oil Co., 384 U.S. 224 (1966), also involving an oil spill, on the ground that pollution control and water quality have been the clear intent of many congressional statutes starting as early as 1886.

Any doubt that Congress intended to deal with pollution as it affects interests other than navigation is dispelled by the Oil Pollution Act of 1924 which empowered the Secretary of War to issue regulations prohibiting discharges of oil from vessels except in such quantities and places

> [a]s in his opinion will not be deleterious to health or seafood, or a menace to navigation, or dangerous to persons or property engaged in commerce on such waters . . ."

The Act also directed the Secretary to investigate and report on

> [p]olluting substances . . . being deposited into the navigable waters of the United States or into non-navigable waters connected with navigable waters, to such an extent as to endanger or interfere with navigation or commerce upon such navigable waters or the fisheries therein.

Perhaps the clearest single statement of Congress on the predominance and scope of the navigational servitude is found in the Submerged Lands Act passed in 1953 conveying title to river and lake beds and sea beds up to three miles to the States. The conveyance was made subject to the federal interest in navigable waters. As 43 U.S.C. § 1314 states:

> The United States retains all its navigational servitude and rights in and powers of regulation and control of said [submerged] lands and navigable waters for the constitutional purposes of commerce, navigation, national defense, and international affairs, all of which shall be paramount to . . . proprietary rights of ownership, or the rights of management, administration, leasing, use, and development of the lands and natural resources which are specifically recognized, confirmed, established and vested in and assigned to the respective States and others by section 1311 of this title.

The scope of the servitude is as broad as necessary to carry out these constitutional purposes. In protecting traditional navigable waters for purposes of pollution and fisheries, the authority clearly exists to follow the "waters of the United States" to the spawning beds for salmon and to any polluting discharge which finds its way by tributary or other means into our major water arteries. Although regulation may affect land use, it is only incidental to protecting the water interests of the United States.

The first general water pollution control statute was the Water Pollution Control Act of 1948 directed towards reducing the pollution of "interstate waters and tributaries thereof". The purpose was to "conserve such waters for public water supplies, propagation of fish and aquatic life, recreational purposes, and agricultural, industrial, and other legitimate uses." Generally, it was a technical assistance program for the States and actual enforcement of pollution abatement was delegated to the States. For the most part, the Act proved ineffective as did supplemental amendments and related acts passed in 1956, 1961, 1965, 1966 and 1970. This history brought about a total overhaul in the Federal Water Pollution Control Act Amendments of 1972 which include Section 404 here at issue.

As part of this development, the Clean Water Restoration Act of 1966 authorized a three-year study of the Nation's estuaries and estuarine zones which included wetlands, intertidal areas, and estuaries of navigable streams. The report was to recommend a comprehensive program "for the preservation, study, use and development of estuaries." The report was completed in March 1970, and submitted to Congress as Senate Doc. No. 91-58, 91st Cong., 2d Sess. It is this study, for example, which concluded that practically all sports fish species and approximately 65% of all commercial fish species are estuarine-dependent for one or more phases of their life development. The report also documents the incredibly complex relationship of these phases of development to temperature changes, salinity changes, and nutrient sources within the estuarine zones, i.e., the complete eco-system surrounding estuaries and wetlands.

This study also reviewed State activities in preserving and controlling the development of estuarine zones under state laws. It had little good to conclude, arriving at such conclusions as the following:

> State governments are both owners and regulators of the estuarine zones. They generally have sufficient legal and constitutional authorities to act.

> Yet in practice, most state laws are ineffective; they are sorely out of date and need updating, revision and basic orientation towards comprehensive management and regulation of estuarine resources.
>
> At their worst, state laws affecting estuaries are rudimentary, antiquated and fragmented. There may be laws dealing with water quality or land zoning but they are uncoordinated and sometimes inconsistent with each other.
>
> . . . .
>
> An evaluation of the overall coastal state picture of estuarine management reveals a pattern or trend that is quite bleak.

Indeed, it was the general failure of States to act in the whole water pollution area that led to the 1972 amendments. As the House Report on those amendments found, in over twenty years under the abatement procedures of the 1948 Water Pollution Control Act, only two cases had been filed by the States in court to enforce water pollution abatement. It was this dismal picture of State inaction that led to the federal takeover of water pollution abatement under the auspices of the Environmental Protection Agency, with delegation to the States only on the basis of strict standards of state enforcement and further provisions that EPA can resume federal control upon a showing of State inaction.

It was against this background of intense congressional concern and general State default that the Department of Justice, EPA, and the Corps of Engineers used existing statutes to achieve many of the same congressional objectives. Between 1963 and 1969, the Department of Justice averaged 40 cases a year under the Refuse Act. These were increased to 131 in 1970, 249 in 1971, 266 in 1972, and dropped to 142 in 1973 with passage of the 1972 FWPCA Amendments. Most of these cases involved pollution abatement pursuant to special guidelines issued in June 1970. The subject matter of the cases covered the full range of modern pollution abatement. A great number dealt with mercury discharges. Armco Steel was stopped from dumping over 1,000 pounds a day of cyanide and other toxics into the Houston Ship Channel. Florida Power and Light was enjoined from discharges of heated water, i.e., thermal pollution, from its power plants causing adverse impacts on aquatic life. Reserve Mining has finally been given a shutdown order for its discharge of 64,000 tons a day of taconite tailings containing carcinogenic asbestos fibers into Lake Superior. The United States Attorney in New York had spectacular success under the Act in halting discharges in New York Harbor.

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The Corps of Engineers also modified its approach during the 1960's from its regulatory practices under the Rivers and Harbors Act of 1899. The Corps acts primarily through Section 10 which bars any obstruction to the navigable capacity of "any of the waters of the United States." It also makes it unlawful to excavate or fill "or in any manner to alter or modify" any navigable water without prior Corps approval. It has been crystal clear since the Rio Grande Irrigation Co. case in 1899 that this section reaches obstruction on non-navigable waters which adversely impact navigable waters, and that Section 13 of the same Act by express statutory language reaches pollution in non-navigable tributaries of navigable waters.

Generally, until 1968, the Corps limited its review of Section 10 permits to consideration of impacts on navigation. However, no such limitation is found in the Act. Moreover, the directives of the Fish and Wildlife Act of 1956, the Migratory Marine Game-Fish Act of 1959, and the Fish and Wildlife Coordination Act made it perfectly clear that Congress had no such narrow view of Corps authority. Consequently, in 1968 the Corps of Engineers promulgated a public interest standard as a basis for issuing permits for work in or affecting navigable waters, which included consideration of the

factors of

> [c]onservation, historic values, fish and wildlife values, flood-damage prevention, land-use classifications, navigation, recreation, water supply, water quality, and the needs and welfare of the people.

With the adoption of the public interest standard, the focus of the Corps' program became all activities in or affecting public water in which the public has an interest, and of necessity, those waters do not stop at the head of navigation or at the edge of a navigation channel. What the Corps began to do in a limited fashion in 1968 was to recognize the full national interest in public waters rather than the more limited interest of navigation only. This broader interpretation led, for example, to suits to enjoin the digging of canals above the mean high water mark (which the Corps had traditionally used as a self-imposed jurisdictional limit under Section 10) which were then connected with navigable waters with severe adverse impact on them. In United States v. Sexton Cove Estates, Inc., 526 F.2d 1293 (5th Cir. 1976), the court upheld the Corps authority to so regulate under Section 10, relying on the many authorities starting with the Rio Grande Irrigation Co. case, and the companion

authorities under Section 13, the Refuse Act.

This expansion of the concerns addressed by the Corps' permit program received additional impetus from a series of reports from 1969 to 1974 by the House Committee on Government Operations investigating federal agencies' programs, or lack thereof, for protection of public waters and wetlands. Congress then reaffirmed its desire to have our Nation's waters and wetlands protected from destruction by unauthorized filling when in 1972, in passing P.L. 92-500, it expressly preserved the authority of the Corps of Engineers under the River and Harbor Act of 1899, and gave the Corps new responsibilities under Section 404 of that same Act to regulate the disposal of dredged or fill material in all the waters of the United States. The legislative history of P.L. 92-500 clearly indicates the Congressional desire that the term navigable waters, as used in that act to define the waters subject to regulation thereunder, "be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes." (Conference Report No. 92-1236, p. 144).

As can be readily seen from the review of the judicial decisions construing the Congress' constitutional

authority over activities affecting navigable waters, this expressed intention of the Congress was of great significance. And it was in keeping with this Congressional history that the United States District Court for the District of Columbia in 1975 instructed the Corps to amend its 1974 regulations to fully reflect the "jurisdiction" intended to be exercised by P.L. 92-500.

It should not be forgotten that the "jurisdiction" in question as it relates to a particular waterbody is not that of the Corps of Engineers, EPA, or any other agency. It is essentially the jurisdiction of the Congress under the Commerce Clause. The Corps and EPA can only issue permits which remove prohibitions on activities which would otherwise violate the Congressional enactments.

Much has been made of the so-called vast expansion of Corps' "jurisdiction" under Section 404 of P.L. 92-500 and that it is a broad new federal incursion into an area reserved to the States. As can be seen from the foregoing discussion, nothing could be further from the truth. P.L. 92-500 was, in fact, nothing more than a recognition of the overriding national interest in protecting our Nation's water resources from pollution and destruction by unauthorized disposal and discharges into such waters and has consistent statutory and Supreme

Court precedent for each of its elements going back to the last century.

Obviously, not all waters require the same degree of federal protection, and recognizing the limiting factors of manpower and funds available, both the Corps and Justice have concentrated their efforts on protecting key resources. After the Congressionally mandated study of estuarine zones, at the top of any list of priority protection should be our wetland resources. These wetlands areas are now almost universally recognized to be, in the words of the Corps' regulations, "productive and valuable natural resources, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest." The Department of Justice, through the Land and Natural Resources Division has, as previously noted, made protection of these wetland areas an important part of its program to enhance environmental quality. And because many of these wetland areas are either above the mean high water or tide line or severed by them, we were particularly pleased that the Congress provided, through Section 404 of P.L. 92-500, an additional means to protect more of those vital areas.

The threat to these areas is an acknowledged fact. In the San Francisco Bay area, there were in 1860

some 313 square miles of marsh land marginal to the bay. In 1968 only some 125 square miles remained -- a reduction of 188 square miles or 60%. The alteration of these resources still continues and many of the existing marsh land areas are behind dikes originally placed to eliminate tidal flows over areas behind the dikes. According to the Deputy Secretary of Resources for the State of California, that State as a whole has only 445,000 acres of wetlands left out of an original 3-1/2 million acres. Conversion of wetlands on the Atlantic and Gulf coasts is accelerating rapidly as more and more of the coast line is accelerating.

Undoubtedly there are many reputable companies and individuals who follow the permit procedures of the Corps under Sections 10 and 404, and abide by the Corps' determination. However, a number of the cases referred to the Justice Department for litigation have involved entities and individuals exhibiting as many characteristics of greed, fraud and outright criminality as I have ever seen in the business world. The worst have involved land developers drawn by the smell of cheap land that can be dredged and filled, often with canals, then subdivided and sold with heavy sales pitches for large front-end profits. Many of them are thinly financed. Most attempt to complete the dredging and make

sales before the Corps finds out about the project; they then attempt to avoid restoration of the wetlands on the ground they will go bankrupt and that innocent purchasers would be stuck with submerged lands they can't use.

In Eastern Virginia at a development known as Captain's Cove, a developer began a project which utilized a "Venetian" style of development -- interior canals are constructed by dredging to provide waterfront access for numerous residential building sites. Typically, and in this case, the dredging is done in wetland areas and the material excavated from the canals is used to create fast land by filling in and raising the level of adjacent areas, which are then used as residential sites. In this particular case, an area of over 1,000 acres, most of it wetland, was platted into about 2,500 building sites requiring numerous canals to be dredged. The development originally intended to use septic tanks for disposal of sewage and waste, although the permeable nature of the soil in many wetlands would turn the whole area into an open sewer. The development was started without notice to the Corps or a Corps permit. The illegal activities took place over approximately 119 days, causing severe damage to the ecology of the Chincoteague Bay and des-

troying a productive clam fishery on which several local fishermen relied. The work was stopped when discovered by federal authorities, and the developers convicted, although not before four thousand lots were sold to innocent purchasers. An environmental study is being completed to determine further usage of the property, and, needless to say, the new lot owners are screaming for completion of their lots.

Similar cases can be cited throughout the entire country. It has been a routine practice for many years to convert economically cheap marsh areas into residential, industrial, and commercial sites without regard for the ecological values being lost by the destruction of these resources, and without consideration of the use of upland areas which could serve just as well for many of those purposes.

In Florida, the coastline is literally obliterated in many areas by canal-oriented housing developments built in large part during the 1950's and 60's during the Florida land boom. In United States v. Moretti, 526 F.2d 1306 (5th Cir. 1976), after the Corps informed Moretti of the need for a permit, he went ahead anyway with dredging of several canals and sold 100 lots before

we were able to enjoin the project. He had also used the dredge materials to fill an adjoining mangrove wetlands for a trailer park, ignoring Corps' cease and desist orders in the process. In the Sexton Cove Estates case, supra, excavation was conducted and lots sold before we halted the project. Their trick was to leave a small plug of earth at the end of the canal and claim it was not connected to navigable waters, knowing full well that the tide would either wash it out or the lot owners would knock it out one dark night. Accord, Weiszman v. District Engineer, 526 F.2d 1302 (5th Cir. 1976).

The smell of cheap land at the expense of the water interest of the United States has engendered other practices such as diking wetlands areas to present the Corps with a fait accompli. In United States v. Bayou Des Familles Corp. (E.D. Louisiana), a developer was caught diking 1,500 acres of wetlands without a Corps permit. He had intended to pump the water out and subdivide the land. We obtained a $25,000 civil penalty under Section 404. In Northern Louisiana we stopped a large agricultural company, H.D.O. Inc., from building an 18-mile levy around 19,000 acres of marsh, 6,400 acres of which was below the mean high water mark on the Ouachita

River, intending to pump out the area for growing soybeans. The dike would have destroyed a productive marine area and increased the danger of flooding in Monroe, Louisiana. Actually, land below the mean high water mark belongs to the State under the Submerged Lands Act of 1953. However, this and other cases tend to indicate that some States are unwilling to resist what amounts to outright thievery of their land or they collude in circumventing Corps' jurisdiction.

Even the reputable are not above seeking a free disposal site. Several cities have diked off wetlands to use for garbage dumps -- litigation is now pending involving the City of Richmond, California, for such a practice. In the past, many thousands of acres have been diked off for present use as salt evaporation ponds, and eventually for use as industrial or building sites.

Although the Sexton Cove Estates case held that Section 10 is not limited by the mean high water mark, the precedent is by no means universal, and in the past has proved a substantial problem in wetlands cases. In one case in South Carolina a survey bench mark was mysteriously moved and an erroneous survey submitted to the Corps. Such water lines are virtually meaningless in a unitary wetland or marsh where destruction of the portion

above the mean high water mark or tidal line will virtually destroy the remainder below the line. Section 404 has obviated such ritualistic exercises by clearly stating Congressional intent to include adjacent and contiguous wetlands within the waters of the United States.

Several sections of the Wright amendment to Section 404 of P.L. 92-500 are of particular concern to the Justice Department.

Subsection (d)(1) would adopt a different definition of "navigable waters" for purposes of Section 404 than the definition of navigable waters -- i.e. waters of the United States -- used for purposes of the remainder of the Act. The new definition for Section 404 excludes historical waters from the definition of navigable waters. The Department of Justice opposes any definition of navigable waters which excludes such historic waters. As the Supreme Court recognized in the Economy Light case, the fact that a waterbody has once been utilized as a highway for interstate commerce, is significant evidence that with reasonable improvements, it may again serve that purpose, and if it is to be excluded, it is for Congress to say so. Congress has not been bashful in this respect as 33 U.S.C. §§ 21 through 59(a) indicate. This principle

has been extremely important in our litigation to protect existing wetlands. We relied upon that principle to establish that the largest and one of only a few remaining mangrove areas in Puerto Rico was a navigable water. See PFZ, Inc. v. Train, 393 F. Supp. 1370 (1975).

Any new definition of navigable waters excluding historically navigable waters would probably result in litigation reopening questions of navigability as to waters which have been considered navigable for many years. The slightest interruption in commercial traffic may cause litigation or even evasion of outstanding permits.

It should be kept in mind that Corps of Engineer' determinations of navigability are judicially reviewable by any aggrieved person and such "navigability" is a question of fact to be decided by the court. The few instances cited in the House Report to justify deletion of this historic test do not in our opinion warrant such a far reaching amendment. In any event, it has not been shown that any real inequities will occur from continuation of the present definition. It can reasonably be expected that the Corps and EPA will administer the 404 program in a fair and unoppressive manner, as had been stated to

the Congress by Mr. Veyzey (Assistant Secretary of Army) on several occasions.

Another aspect of the redefining of "navigable waters" for Section 404 purposes also troubles my Department. Section 404(a) would be amended to apply the section to discharges of dredged or fill material into "adjacent wetlands." However, the treatment given the term adjacent wetlands as being a separate category from "navigable waters" raises the possibility that wetlands may be thereby excluded completed from the protection of P.L. 92-500. Section 404 does not prohibit the discharge of dredged or fill material into navigable waters, however defined. That function is served by Section 301 of the Act which contains a general prohibition against discharges of pollutants into navigable waters without a Section 402 or 404 permit. Section 404 only establishes a permit program for discharges of pollutants which may be classified as dredged or fill material. Section 404, however, is dependent upon the prohibition in Section 301 to make this permit program effective. If the proposed amendment to Section 404(a) is interpreted as placing adjacent wetlands outside the definition of "navigable waters",

which in my opinion is a likely interpretation, then there is no prohibition within P.L. 92-500 at all which prohibits discharges of dredged or fill material, or indeed any other pollutant, into such adjacent wetlands. The risk of loss of these wetlands is too high a price to pay in order to resolve unfounded fears over the scope of the Section 404 program.

Perhaps the worst proposed amendment to Section 404 is Section 404(e) which would exclude from the entire coverage of P.L. 92-500 and Sections 9, 10, and 13 of the 1899 Rivers and Harbors Act any discharge of dredged or fill material into waters other than waters of the United States as newly defined, and adjacent wetlands (keeping in mind our concern over the separation of such adjacent wetlands from the definition of navigable waters). While some have argued that EPA could still control discharges of pollutants into waters excepted from the coverage of Section 404, Mr. Chairman, I must state the firm opinion of the Department of Justice that this conclusion is of substantial doubt, and that this section could remove all federal control over discharges of dredged or fill material, whatever its physical characteristics, be they dirt, sand and gravel, or Kepone and arsenic laden spoils or soil.

It repeals by implication the express language of the Refuse Act applying to discharges in the non-navigable tributaries of navigable waters. Such an amendment is highly objectional and could serve to undermine the whole national effort under the Federal Water Pollution Control Act and the 1899 Rivers and Harbors Act to protect our waters from toxic and harmful substances. Under this provision, we could not have brought the 456 counts in an indictment under the Refuse Act against Allied Chemical for its discharges of Kepone and other toxics between July 1971 and October 1972 into the non-navigable Gravelly Run flowing into the James River.

I cannot state too strongly the opposition of the Department of Justice to this provision. Mr. Chairman, the 1899 Act has been a principal, and, in many instances, the sole means of protecting public waters from alteration and destruction. The 1899 Act, as I have previously shown, has been construed by the Supreme Court to extend to activities outside public waters which substantially affect such waters. There is not now, and never has been in my opinion any justification for curtailing the scope of this statute under the pretense of protecting normal farming operations, which are, by the way, exempt under

the current Corps' regulations. Any provision such as proposed 404(e) which would limit the applicability of that statute is, in my opinion, against the public interest. Such a provision would not only impair our efforts to clean up our Nation's waters and protect our wetlands, it would in some cases go so far as to preclude litigation in the interests of preserving navigation itself. For example, under proposed 404(e), an earth-fill dam could now be built across a major tributary supplying much of the water flow to a navigable river, cutting off that flow. Since such an activity would involve a discharge of fill material into a "non-navigable" water under Section 404 (e), it would be exempt. This provision would largely reverse the 1899 Supreme Court decision in United States v. Rio Grande Irrigation Co. wherein the Court specifically said:

> If the State of New York should, even at a place above the limits of navigability, by appropriation for any domestic purposes, diminish the volume of waters, which, flowing into the Hudson, make it a navigable stream, to such an extent as to destroy its navigability, undoubtedly the jurisdiction of the National Government would arise and its power to restrain such appropriation be unquestioned.

This sub-rosa effort to limit the applicability of the 1899 Act is a direct attack upon the general ability of the United States to protect its public waters and would send us back to the last century. The Congress, in its wisdom has, over many years, when passing related legislation, specifically preserved the original scope of the 1899 Act, and did so specifically when P.L. 92-500 was enacted in Section 511. Nothing occurred to raise doubts as to the continuing need for and vitality of that Act. I fervently hope and trust that the Congress will continue its policy of preserving the authority contained in the 1899 Rivers and Harbors Act.

Mr. Chairman, I congratulate this Committee for holding hearings today to look into this matter. The House of Representatives passed its amendments without the opportunity for such hearings and, in my opinion, took positions which they might not have had the issues been fully heard in a forum such as this. As the testimony here today reflects, the interrelationship of interests in navigation, flood control, fish and wildlife preservation, watershed protection, pollution abatement, and hydroelectric power crossing the jurisdictional lines and statutory interests of many different federal agencies

makes tampering with the basic jurisdictional statutes a most sensitive legislative task. It is also a task which requires, in my opinion, a full airing of relevant public and private interests. If requested to give priorities concerning immediate legislation, I would suggest the following:

1. The traditional Corps of Engineers' responsibility for navigation and flood control require preservation of the full jurisdiction of the 1899 Rivers and Harbors Act, including that statute's jurisdiction over activities on non-navigable waters which adversely impact navigable waters.

2. Phase I of the current Corps' regulation under Section 404 cover the vast majority of the key wetlands and estuarine zones. Phase I also incorporates the most important areas of interrelationships between various federal agencies such as the Corps, the Federal Power Commission, TVA, Department of Interior, and the Environmental Protection Agency. Attempts at State delegation within this area would pose substantial risks of major and unintended interference with the primary responsibilities of these agencies in carrying out major Congressional programs. Phase I jurisdiction is also

that area where extensive past history reflects that States are least able to protect our major water resources, many of which, especially fisheries, are becoming a major element of foreign affairs as the Law of the Sea Conference and related international incidents concerning coastal fisheries clearly reflects. It would therefore be most inappropriate in my opinion to interfere with the current federal 404 program within Phase I jurisdiction.

3. Phase II and III jurisdiction under the current Corps' regulations pursuant to Section 404 pose, in my opinion, fewer problems. The diverse interests of many federal agencies are less acute. Except for Corps' interests under the 1899 Act, our primary national interests in Phase II and Phase III concern water quality and fish and wildlife preservation. These are interests which are more easily made the subject of delegation to the States. However, once again, based on past experience with the States in the water pollution area, I would suggest that the delegation be made under strict standards similar to delegation provisions of the 1972 amendments to the FWPCA.

Mr. Chairman, I do not envy your task in attempting to handle this matter at this time. I hope that my comments have been helpful and I am prepared to respond to such matters as the Committee may wish to pursue.

Senator RANDOLPH. We will have your statement, and the comments you have made during the testimony have been helpful.

We will hope that tonight's session running for approximately 2½ hours explored some of the subject matter and has opened up statements and counterstatements that have been clarifying. We will continue tomorrow evening at 7.

Senator Domenici?

Senator DOMENICI. Mr. Chairman, before we adjourn, might I just make one closing observation?

Senator RANDOLPH Yes, Senator.

Senator DOMENICI. I think the last remark by the Secretary about the difference in delegable authority under 402 and 404 is a very important issue. I think the bind we find ourselves in is that under 404, there is no delegability. So if we have Quentin's farmer or your farmers or my bridge man, if it is subject to the jurisdiction of 404, we can't help but find ourselves in a dilemma, that it can't be delegated under any circumstances because we intended a different scope under 404.

We didn't want States involved in the dredge and fill process, which was obviously a major interstate proposition.

On the other hand, we are to a point where 402 is not being implemented to its full extent because of the court opinion which placed most of the burden on 404.

We have to clearly elucidate what it is that we want to delegate and clearly indicate that it is delegable. That will be one of the issues that will clarify this business of do they retain authority because they create exceptions.

Many of the areas we are concerned with—and I am not talking about wetlands, understandably. It is a completely different issue.

Senator RANDOLPH. That is dry land.

Senator DOMENICI. I do think that we have come down to that situation where the court interpretation—and I do think the good Senator from Maine, when he is talking about their implementing in a certain way, does intend to give them the benefit of being mandated by a court.

Senator MUSKIE. I understand that. But my friends in the southern part of the country often remind me the courts can be wrong.

Senator DOMENICI. I think that we have had an excellent hearing.

Senator RANDOLPH. Thank you, Pete.

Adjourned.

[Whereupon, at 9:30 p.m., the committee was recessed, to reconvene at 7 p.m. on Wednesday, July 28, 1976.]

SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

WEDNESDAY, JULY 28, 1976

U.S. SENATE,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met at 7:30 p.m., pursuant to recess, in room 4200, Dirksen Senate Office Building, Hon. Jennings Randolph (chairman of the committee) presiding.

Present: Senators Randolph, Gravel, Bentsen, Burdick, Morgan, Hart, Baker, Buckley, and Domenici.

Senator RANDOLPH. We appreciate your presence and your patience.

Jack Odgaard, will you give the final portion of the statement of Senator Curtis.

STATEMENT OF HON. CARL CURTIS, U.S. SENATOR FROM THE STATE OF NEBRASKA, PRESENTED BY JACK ODGAARD

Mr. ODGAARD. Thank you, Mr. Chairman. My name is Jack Odgaard. I am appearing here for Senator Curtis to present his brief oral remarks and submit a written statement for the record. Senator Curtis' remarks follow:

"The committee is to be commended for its responsiveness to the outcries of the States on the matter of Federal regulation of all of our waterways.

"Mr. Chairman, I won't argue the merits or liabilities of regulating dredging and filling operations as they affect navigation or critical coastal and marsh areas for ecological reasons. We have all heard those arguments, and understand that situation. I will state simply that those issues have little contention.

"On the other hand, there is no basis and can be no justification for establishment of Federal regulations—over nonnavigable waters, over exclusive intrastate streams, and over farm ponds and private and public isolated bodies of water.

"I suggest to the committee that the problems with implementation of the section 404 regulations by the Army Corps of Engineers stem from the fact that the administration of this program on other than navigation waters and those of primary environmental importance is seen by the States as nothing more than additional Federal infringement on the rights of the States and citizens.

"Clearly, Mr. Chairman, the Congress did not intend that the Federal Government should encroach on the rights of the States in the

Federal Water Pollution Control Act Amendments of 1972, by imposition of a massive, all-encompassing Federal regulatory program over all waters.

"However, as is the case with laws we enact on occasion, some of the language was so ambiguous in the 1972 law that the Federal courts have rendered an interpretation of the intent of Congress that there should be Federal control over all waters of the Nation.

"We have only one recourse, and that is to amend the law to clarify the intent of Congress. I have joined with Senator Tower and several others on a bill, S. 1878, that would amend the 1972 act by properly defining the control of the Federal Government, and urge that the committee act as swiftly as possible to hold hearings and report this or a similar measure to the Senate floor.

"My written statement is submitted for the record and I thank the chairman."

[Senator Curtis' statements follow:]

Statement by Sen. Carl Curtis before the Committee on Public Works
July 28, 1976

On Federal Controls Over Waters of the Nation, under Sect. 404 of the Federal Water Pollution Control Act Amendments of 1972.

Thank you, Mr. Chairman, for the opportunity to appear before your committee today. Knowing of the heavy schedule the members of the committee have, and in the interest of time, I will keep my remarks brief and submit a written statement for the record for thorough examination and consideration by the committee.

I trust most members of the committee already know where I stand on the subject of these hearings. The committee is to be commended for its responsiveness to the outcries of the states on the matter of federal regulation of all of our waterways.

As the chairman, Mr. Randolph, wrote me on July 1 in response to a letter on this subject, these hearings were called to look into the problems and implications in implementation of the Sect. 404 regulations of the Federal Water Pollution Control Act Amendments of 1972. Mr. Chairman, I won't argue the merits or liabilities of regulating dredging and filling operations as they affect navigation or critical coastal and marsh areas for ecological reasons. We have all heard those arguments, and understand that situation. I will state simply that those issues have little contention.

On the other hand, there is no basis and can be no justification for establishment of federal regulations - over non-navigable waters, over exclusive intrastate streams, and over farm ponds

and private and public isolated bodies of water.

I suggest to the committee that the problems with implementation of the Sect. 404 regulations by the Army Corps of Engineers stem from the fact that the administration of this program on other than navigation waters and those of primary environmental importance is seen by the states as nothing more than additional federal infringement on the rights of the states and citizens.

Clearly, Mr. Chairman, the Congress did not intend that the federal government should encroach on the rights of the states in the Federal Water Pollution Control Act Amendments of 1972, by imposition of a massive, all-encompassing federal regulatory program over all waters.

However, as is the case with laws we enact on occasion, some of the language was so ambiguous in the 1972 law, that the federal courts have rendered an interpretation of the intent of Congress that there should be federal control over all waters of the nation.

In view of this it is obvious that we have only one recourse, and that is to amend the law to clarify the intent of Congress. I have joined with Senator Tower and several others on a bill, S.1878, that would amend the 1972 Act by properly defining the control of the federal government, and urge that the committee act as swiftly as possible to hold hearings and report this or a similar measure to the Senate floor.

Mr. Chairman, at a time when the public is more aroused and angered about federal government interference and restriction than ever before, I think it is necessary that the Congress act in response to individual outrages as quickly as possible. The matter of federal control over all waters is surely one of those issues involving outrage, and I urge the committee to act on this matter as a matter of utmost priority.

Thank you.

Supplemental Statement: to remarks by Sen. Carl Curtis before the Committee on Public Works, July 28, 1976

On Federal Controls Over Waters of the Nation, under Sect. 404 of the Federal Water Pollution Control Act Amendments of 1972

Mr. Chairman, as you and the members of this committee are aware, by the fact of your scheduling of these hearings, the Congress has been barraged with complaints about Federal overregulation, red tape and harassment since imposition of regulations under Section 404 of the Federal Water Pollution Control Act Amendments of 1972. It is four years since the enactment of that law, yet only in the past year has most of the Congress become aware of the major controversy created by the Act.

It has taken a long time for this matter to come to the attention of Congress because of the lengthy controversies both in the Administration and the courts as the Executive Branch moved to implement the sweeping provisions of the Act. Now, during the past year, as a result of settlement of the controversy at the Executive and Judiciary levels, the matter has come home to roost in the Legislative Branch, from which it originated.

It is right that the controversy is back within the Congress, since it is because of Congress that it came about--by Congress' failure to clearly and succinctly spell out its intentions in the 1972 Act. Specifically, the problem centers around an issue of how much Federal control and regulation there should be over waters of the United States. The implementation of the Act has led to Federal encroachment on the rights of the states. It is now back in the Congress because it has not been resolved by the Executive or Judiciary Branches to the satisfaction of the citizens and the states.

I have no doubt that both the Executive and Judiciary functioned properly in their various actions and decisions on the matter; but the problem that still exists is that those actions and decisions reflect something I don't think the Legislative Branch had intended to be, and with which the States are at odds--Federal control and regulation over all of the waters of the United States.

I don't think it was the intent of the Congress arbitrarily to establish Federal controls over all waters of the nation in the 1972 Act. We already have Federal water pollution control standards and a program that for several years has been most effective in helping to clean up our waters by treatment of waste waters and commercial by-products that flow into our streams and lakes. Why then the current controversy? Why then the need for further Federal controls over our waters?

The answers are clear to me--there is no need for further Federal controls, and the controversy has come about because the states share this view and the feeling that the 1972 Act was just another Federal bureaucratic effort to infringe on the rights of the people and create nothing but further government regulation, red tape and interference

Mr. Chairman, I would like to point out that the controversy over the 1972 Act doesn't even deal with the issue of biological pollution which has been our major concern in cleaning up the waters of the nation. Rather, it is concerned with dredging and filling of and along streams, rivers, lakes and the coastal shores.

This provision was added to the Federal Water Pollution Control Act because of concern for unscrupulous development that has led to the destruction and loss of some highly desirable and important ecological areas, particularly along our ocean coastlines and the marshes and backwaters of the United States. But, it is not a matter of biological pollution and cleaning up the waters of the nation.

In our zeal to protect the waters of the nation from pollution, and to protect critical ecological water areas, we have overstepped our bounds, in my opinion, and simply extended the tentacles of Federal control to areas that in no way are concerned with pollution but that further encroach on the rights of the states and the individual citizens.

Surely the very controversy over implementation of the 1972 Act within the Executive Branch and in the courts should be proof enough that Congress has not concisely and clearly established its intent in this regard. Witness, for instance, the differing opinions among the Army Corps of Engineers, the Environmental Protection

Agency and the Justice Department that occurred in 1974 following publication by the Corps of Engineers on April 3, 1974, in the Federal Register, of regulations pertaining to the 1972 Act. I have copies of correspondence between the Corps, EPA and Justice Department officials dated in June and August, 1974, in which considerable differences about the intent of Congress and interpretation of Federal authority are argued.

The courts have been wrestling with the problem themselves since enactment of the 1972 amendments. On March 15, 1974, the U.S. District Court for the Middle District of Florida, in U.S. vs. Holland, ruled that wetlands above the mean high water line are subject to Federal jurisdiction under Sect. 404 of the Federal Water Pollution Control Act as amended. In August of that same year, as a result of the Corps of Engineers regulations, the Natural Resources Defense Council and National Wildlife Federation filed suit to require the Corps of Engineers to cover broader jurisdiction over waters.

Arguments continued on the extent of Federal control and regulation among the various Federal agencies, and the matter wasn't resolved at the Executive level until March 27, 1975. Then, U.S. District Judge for the District of Columbia, Aubrey E. Robinson, Jr., ruled in the 1974 suit of the Natural Resources Defense Council and the National Wildlife Federation, that the Corps of Engineers must expand its jurisdiction over the nation's waterways, and that the Corps is responsible for waterways along non-navigable streams as well as the navigable waters and coastlines.

The idea of Federal control vested in the Army Corps of Engineers under its responsibility for maintaining the nation's navigable rivers and harbors stems from the 1899 Rivers and Harbors Act. In a letter of January 17, 1975, Maj. Gen. J. W. Morris, Director of Civil Works, advised me that until the 1972 Act, the Army Corps of Engineers' regulatory permit program had been based entirely on the requirements of the 1899 Rivers and Harbors Act. General Morris said the Corps limited its exercise of regulatory authority, as specifically defined in that 1899 Act, to those activities performed in or affecting waters which were presently used to transport interstate commerce.

Thus the problem in interpreting the intent of Congress stems from the 1972 Act. Judge Robinson, in his March 27 ruling, said "Congress by defining the term 'navigable waters' in Section 502 (7) of the Federal Water Pollution Control Act Amendments of 1972...to mean 'the waters of the United States, including the territorial seas,' asserted Federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution. Accordingly, as used in the Water Act, the term is not limited to the traditional tests of navigability."

I think it should be pointed out that Judge Robinson, in arriving at his decision in the case, made it clear that the decision was based on literal interpretation of the language and wording of the 1972 Act. He intimated that an appeal from his decision to the higher court could help focus on the issue that the intent of Congress could not clearly be determined from the Act, and that a decision had to be made in the literal sense of the Act. That implied that he felt it wise for Congress to specify its intent clearly and concisely.

Mr. Chairman, although the controversy has come to the attention of most Members of Congress only in the past year, we in Nebraska have known about it for nearly two years. It came to my attention in October, 1974, when the Corps of Engineers announced that it was going to undertake a study of the Platte River in Nebraska to determine whether or not it should be declared navigable.

I don't mind telling the members of this committee that the Platte River in Nebraska historically has been described as "a mile wide and an inch deep," and that during much of the year it would be impossible to float a toothpick down the river, let alone commercial barges. By no stretch of the imagination could the Platte River be considered navigable.

But that is not to say that we in Nebraska do not regard the Platte River as important. It is not a deep-gorging, crystal blue, white-rapids river of the nature of the Colorado that cuts through the Grand Canyon. It is a meandering, calm, slow-moving stream that has many important uses to us in Nebraska. Among these ueses are

irrigation of farmlands, diversion for hydro-electric and steam electric generation, impoundment for fishing, waterfowl hunting, and game hunting and trapping.

In any event, on learning of the plans of the Federal government to study the Platte River for navigability, most Nebraskans probably thought that all of the Federal bureaucracy had taken leave of their senses. Was there some new great scheme to bring Gulf Coast shipping up the Platte River from Omaha on the Missouri to Ogallal on the Platte? Would it mean new industry for Nebraska, where barge traffic would dock at Fremont, Columbus, Grand Island, Lexington, Kearney and North Platte? Would it be a new source of direct transportation of Nebraska crops to market that would relieve the shortage of rail facilities for grain transportation?

I admit that on the surface some of those possibilities may have loomed attractively in the minds of Nebraskans. But, because they are sound, logical people, Nebraskans would stop to think about what the cost implementing such an unlikely venture would be. Let's see--a nine-foot deep channel, probably 200 yards wide at the minimum, would cost $20 or $30 million per mile. At 300 miles that would be $6 or $8 or $10 billion. Reasonable? Likely? Not so, unless, as perhaps we have been suspecting all along, the Federal government has gone insane.

Happily, Mr. Chairman, I can report that it was not the intent of the Federal government to dredge the Platte River to make it navigable. On investigation of the announcement by the Corps of Engineers, we found that it was nothing more than an agency carrying out a program under regulations it was forced to impose because of language in a law passed by the Congress.

Not so happily, on further investigation we found that the designation of the Platte River as navigable would mean that the Federal government would have complete control over the river. That means farmers would have to go through a lengthy, time-consuming, red tape, paperwork application process in order to put a pump along the river to irrigate their land; and that the many communities along the river would have to receive approval of the Federal government to install well fields to provide domestic water supplies; and that our public electric utilities would be subject to

Federal control over facilities for use of the river to generate electricity for the state; and that communities would not be able to erect levees to protect themselves from flooding unless the Federal government said they could do so.

Well, Mr. Chairman, several Nebraska officials and I went to work to notify other states of the problem we were having, certain that they, too, would one day have such problems in their states. We appealed to the Corps of Engineers, and directed its attention to various dictionaries of the English language which explained the meaning of the word navigable as being "deep enough and wide enough to afford passage to ships." Yet we were constantly confounded by a refusal to accept this definition, where the Corps referred us to laws of the United States that spell out quite another meaning.

I haven't meant to belabor the problem with the definition of navigability, but it became clear to us that the language problem was really centered in the wording of our laws.

Just when we thought we were getting somewhere with the Corps of Engineers, we found that the March 27, 1975 District Court decision effectively brought to an end our controversy over the term navigability. The court decision was based on the 1972 Act--language in that act--that took no cognizance of whether or not a stream was navigable, but that simply said the Federal government shall have control and authority over all waters of the nation. I'm sure you can imagine our perplexity at that time. Again, we found the language of the law was the culprit. At that time, as in the past, questions arose:

How is it that the Corps of Engineers, which is charged with responsibility over waters of the nation only affecting navigation and harbors, was deemed to have authority over all waters? What are waters of the United States? Are they the individual brooks, creeks and streams that lie solely within a state? Are they the large and small lakes, and the farm ponds, natural or man-made, that lie solely within a state? Or are they those major streams that flow between many states, and that carry interstate commerce? Are they the major lakes that are bordered by several states and that are used for commerce?

Mr. Chairman, these are the questions that were of concern and that were answered by the people in the ensuing controversy involving the Corps of Engineers activities and decisions by the Federal Courts.

The States--the citizens--have told us they think the waters of the United States should be only the coastlines and streams actually used for navigation, and that the other waters should be waters of the states and counties and communities in which they are exclusively located. As a matter of fact, with the exception of the scattered, loosely connected organization of environmental and other special interest groups, I know of no public support for Federal control and authority ipso facto over all waters located within the boundaries of the nation.

The Governor of Nebraska, State Legislature, and Nebraska Game and Parks Commission have stated their opposition to Federal control of all the waters located in Nebraska. On May 7, 1975, the member states of the Missouri River Basin Commission--Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota and Wyoming--adopted a resolution opposing any Federal controls over waters for other than navigable purposes.

In June, 1975, the governors of the States of the Old West Regional Commission--Montana, Nebraska, North Dakota, South Dakota and Wyoming--stated their opposition to all-encompassing Federal controls over water; and in that same month, the National Governors' Conference passed a policy position in opposition to Federal intrusion on States' rights on non-navigable streams.

In September, 1975, the Five State Legislative Conference, consisting of 121 senators from the States of Nebraska, Montana, South Dakota, North Dakota and Wyoming, passed a resolution calling for Federal legislation to redefine navigability as applying only to waters having present actual capability for transporting commerce.

Mr. Chairman, it should be clear by now that there is no public sentiment for Federal control over waters as is apparently established in the 1972 Water Pollution Control Act amendments. Lest my remarks be disregarded as emotionally charged or

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without fact or foundation, I would remind members of the Committee of the effects of the regulations being implemented by the Corps of Engineers.

As a result of the Executive Branch and court controversies and decisions, the Corps of Engineers last year developed final regulations to be implemented in three phases. The first phase went into effect in July, 1975, and covered the coastal waters of the U.S. and all navigable streams. The second phase, which has been deferred for 60 days from July 1, 1976, pending outcome of efforts in Congress to amend the law, would have brought principal tributaries of navigable streams and all bodies of water with five or more surface acres under the Federal regulations. The third phase, now scheduled to take effect in July, 1977, will bring ALL OTHER WATERS under Federal control.

Mr. Chairman, prior to the 1972 amendments to the Water Pollution Control Act, the only permit program carried out by the Army Corps of Engineers was the Section 10 program under the Rivers and Harbors Act of 1899, which regulated structures only, in navigable streams and tributaries affecting the courses of streams. In fiscal year 1972, the Corps of Engineers received a total of 9,600 permit applications nationwide.

But, since implementation of the 1972 amendments, the Corps also has taken on Sections 103 and 404 permit programs, under the Marine Protection and Sanctuaries Act and the Federal Water Pollution Control Act Amendments, respectively. As a result, the Corps estimates that through fiscal 1976, it will have had a total of 19,873 permit applications--more than double the number of the last fiscal year before the new laws.

I would like to point out that these permits under the 1972 Amendments have been implemented for only one year under the first phase of the three-step implementation program. This has involved the coastal waters and navigable streams only. Imagine how many more thousands of miles of tributaries and non-navigable waters and lakes there must be in the United States that will be added under regulations of phases two and three. I think it is reasonable to assume the permit program of the Corps of Engineers may triple or quadruple in one or two years.

I bring these figures out here to emphasize another point about Federal regulations and controls. Besides our utmost concern over needless Federal encroachment on the rights of the states and of the citizens, we must be aware that such all-encompassing Federal restrictions prove costly, cumbersome, and time-consuming, and do nothing but help to drain tax dollars and create further resentment among Americans for their government.

How many government employees will have to be added to the Federal payroll to handle the tremendous amount of paperwork with these permits? How much more cost will there be in the materials and supplies used in this program? Surely no one knows exactly, and we can only guess that this will be another costly Federal program to administer.

The committee may be interested to know that in the first six months of this year I received notices of permits pending from the Omaha District office of the Corps of Engineers on 44 applications. I stress that these were only notices of pending permits, and only from one district office of the Corps for a half year. The total number of pages in those notices came to 211. Imagine the fantastic amount of paper used for the forms, notices, and mailings by the Corps of Engineers in this program. It would be interesting to see a study done to determine how much of our resources of timber must be used to produce the paper that will be used just for this one Federal program.

Mr. Chairman, I believe I have made my position clear. There is no basis for the Federal government to assume total control and regulation over all waters of the United States. The people do not want such controls. The States have their rights infringed upon. It was not the intent of the Congress that the 1972 amendments to the Federal Water Pollution Control Act should establish such controls. Those provisions are only leading to further disenchantment with the Federal government and the Congress, and will only add further to our drain on natural resources and expenditures of tax dollars.

It is time the Congress wakes up to the will of the people, and acts responsibly in the interest of the nation. In the matter of Federal controls over our waters, I think we should move swiftly to amend the 1972 Act clearly to establish Federal controls only over those waters of the U.S. that are navigable and coastal.

I commend the bill on which I am a cosponsor, S.1878, to the attention of the Public Works Committee, and urge swift action by the committee to report it to the floor of the Senate so that this travesty of law can be corrected in this 94th Congress.

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Senator RANDOLPH. Thank you very much, Jack. Before leaving, is there comment from any of the members of the committee? Thank you very much.

Mr. ODGAARD. Thank you very much.

Senator HART. If it is in order, Mr. Chairman, I would like to submit for the record a statement prepared by Congressman Paul McCloskey, of California, who was unable to be here.

Senator RANDOLPH. Yes, Gary. Did you want to read the statement?

Senator HART. No; I do not. I will only submit it for the record. The only comment I make is I like it. He comes up in favor of a proposal which I have submitted.

Senator RANDOLPH. That is understandable.

Senator HART. I thank the chairman.

[Congressman McCloskey's statement follows:]

STATEMENT OF PAUL N. McCLOSKEY, JR.
BEFORE
THE SENATE PUBLIC WORKS COMMITTEE
ON SECTION 404 REGULATIONS

July 28, 1976

Mr. Chairman:

When the House passed the Federal Water Pollution Control Act Amendments of 1976 a few weeks ago, the so-called "Wright Amendment" was offered at the last minute and passed with virtually no substantive debate. The Wright Amendment made a major change in Corps of Engineers' fill permit jurisdiction, removing jurisdiction from areas which were once covered by navigable waters or wetlands, but are no longer.

The necessity for some amendment to the 1972 Act was made necessary by the U.S. District Court's decision in Natural Resources Defense Council v. Callaway, 392 F. Supp. 685 (1975), which in effect required the Corps to control fill in all waters of the United States, including small upland streams.

Clearly, Congress did not intend this result under the 1972 Act, and all of us would agree that ordinary upland farm ponds and timbering operations shouldn't require a Corps fill permit.

On the other hand, the Wright Amendment answers this problem with a meat-axe approach, and removes all estuary and tideland marsh areas from protection, if they have been diked off and are no longer navigable or adjacent to navigable waters.

In the San Francisco Bay Area alone, for example, there are 63 square

miles of salt ponds behind dikes and 125 square miles of marshland, a major portion of which is also behind dikes. The Corps' permit system has effectively protected these areas so far, but the Wright Amendment would terminate this protection since it limits jurisdiction to waters which are presently navigable.

The key language (note the word "presently") of the Wright Amendment is as follows:

> "(d)(1) The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)" (Emphasis added)

I have prepared a simple amendment to the Wright Amendment which I hope you will consider. The amendment divides the above definition of navigable waters into two parts, using the presently navigable requirement for upland waters (above mean high tide), but using the historically-navigable test for tidal areas below mean high tide. Thus the long history of judicial interpretation of Corps jurisdiction over tidal waters will not be affected.

The Wright Amendment, as amended, would then read as follows:

> "(d)(1) The term 'navigable waters' as used in this section shall mean:
>
> (A) in the case of waters which are subject to the ebb and flow of the tide, or were at any time subject to inundation by mean high tide (mean higher high tide on the west coast), those waters shoreward to their mean high water mark (mean higher high water mark on the west coast), which are presently, or have been in the past, or may be in the future, susceptible for use for purposes of interstate or foreign commerce; and

> (B) in the case of all waters not subject to the ebb and flow of the tide, or were not at any time subject to inundation by the mean high tide (mean higher high tide on the west coast), those waters shoreward to their ordinary high water mark which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce." (Emphasis added)

I know this is a complex problem and I am grateful for the efforts of your Committee to consider Section 404 carefully in these hearings. I feel the Senate has a special obligation to act cautiously on this matter, as the House held no hearings on the Wright Amendment prior to its consideration on the Floor, and even then debate was limited to 20 minutes, with each Member limited to no more than one minute of argument.

Frankly, I would prefer to see the Congress amend Section 404 by passing Senator Hart's bill, S. 3663. This bill is virtually identical to the Cleveland-Harsha Amendment which was offered on the floor during the debate on H.R. 9560, but by a parliamentary maneuver was replaced at the last minute by the Wright Amendment. I am still convinced that the Cleveland-Harsha Amendment would have received substantial support in the House, quite possibly the necessary majority, had not Mr. Wright been successful in limiting debate in such a manner that few Members were aware of the real impact of the Wright Amendment.

Thank you for this courtesy.

Senator RANDOLPH. Our colleague, Senator Bartlett, has joined us. We are ready for you to present your testimony.

STATEMENT OF HON. DEWEY F. BARTLETT, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator BARTLETT. Mr. Chairman, thank you, very much.

I would ask that my statement be included in the record.

[See p. 148.]

Mr. Chairman, I would like to point out that an analysis by several farm organizations shows that the following steps would be necessary to meet the requirements that are being established under section 404. I am not going to describe them, but just give the steps:

Permit application, public notice, comments and hearing, section 401 certification, coastal zoning management certification in some cases, environmental impact statement, Corps decisionmaking, EPA review.

This would not be required in all instances, but would in many. These requirements are in addition to applicable State and local requirements, which include compliance with State environmental policy acts, State forest acts, and State and local land use laws. Also, there are other Federal requirements from the specific agencies.

This type of delay can be ill afforded by the agricultural community or any other type of business. A decision is made on the basis of a number of tangible and intangible considerations, but particularly depends on immediate need, anticipated need, availability of capital, and present costs. Lengthy delays can do nothing but detrimentally affect the business planning that has become increasingly imperative in complex agribusiness.

The U.S. Department of Agriculture has estimated that 60,000 additional permits per year would be required if the normal conservation practices now being carried on by USDA and farmers are continued. Each of these conservation practices would be delayed, thus perpetuating the environmental problem that the practice is seeking to solve.

First: If the court decision to expand the jurisdiction of the Corps to all bodies of water, both public and private, in excess of 5 acres is an accurate reflection of legislative intent, then it should stand.

However, if the Congress should decide that it was not their intention to extend such jurisdiction, then it should immediately act to correct this error, by adopting legislation such as I have introduced.

Second: If Congress is serious about eliminating unnecessary paperwork, redtape, and bureaucratic interference, this is the specific place to begin.

The problem is apparent, and these hearings stand to draw attention to the need for remedial legislation. This legislation is already in the hands of the committee, and I would again like to congratulate Senator Randolph for this effort to move the Senate toward language that will specifically express the original congressional intent.

I urge the members of the Public Works Committee to consider the presentations made at these oversight hearings and forward a bill such as the one I introduced which will reflect, I believe, the intention of the Congress.

Mr. Chairman and members of the committee, I thank you, very much.

[Senator Bartlett's prepared statement follows:]

STATEMENT BY SENATOR DEWEY F. BARTLETT
PUBLIC WORKS COMMITTEE OVERSIGHT HEARINGS
SECTION 404, WATER POLLUTION CONTROL ACT

MR. CHAIRMAN:

THE PUBLIC WORKS COMMITTEE, AND YOU PARTICULARLY, ARE TO BE CONGRATULATED FOR MOVING FORWARD WITH THESE OVERSIGHT HEARINGS ON THE EFFECTS OF SECTION 404 OF THE WATER POLLUTION CONTROL ACT, AND MORE PARTICULARLY THE EFFECT OF THE ACT'S EXPANDED APPLICATION UNDER FEDERAL COURT DECISION.

THE HOUSE HAS ACTED ON THIS MATTER, AND IT IS NOW THE SENATE'S RESPONSIBILITY TO EXPEDITE THE CONSIDERATION OF THE SEVERAL BILLS NOW IN THE PUBLIC WORKS COMMITTEE WHICH SEEK TO CLARIFY THE POSITION OF CONGRESS ON WHAT WATERS ARE TO BE FEDERALLY CONTROLLED UNDER THE WATER POLLUTION CONTROL ACT.

MY OWN BILL, S. 3224, PROVIDES SPECIFIC EXEMPTIONS FROM FEDERAL CONTROL FOR BODIES OF WATER OWNED AND CONTROLLED BY EITHER STATE AND LOCAL GOVERNMENTS OR PRIVATE CITIZENS.

THESE OVERSIGHT HEARINGS SHOULD CLARIFY THE PROBLEMS THAT HAVE BEEN CREATED, AND I HOPE THAT THE HEARINGS WILL FOCUS THE SENATE'S ATTENTION ON THE NEED TO ADOPT LEGISLATION BEFORE THE END OF THIS SESSION. IT IS IMPERATIVE THAT CONGRESS CLEARLY EXPRESS ITS INTENT SO THAT THE CORPS AND OTHER FEDERAL AGENCIES WILL HAVE CLEAR AND SPECIFIC GUIDELINES WITHIN WHICH TO OPERATE. ALSO, IT IS NECESSARY THAT CONGRESS DEFINE THE PARAMETERS OF THE WATER POLLUTION CONTROL ACT FOR FEDERAL COURTS, THEREBY PRECLUDING ANY OPPORTUNITY FOR THE COURT TO MISINTERPRET THE INTENTION OF CONGRESS.

MY CONCERN IS THE IMPLICATION OF THIS SECTION IF THE COURT'S INTERPRETATION IS ALLOWED TO STAND. THE DECISION PROVIDES THAT THE CORPS SHOULD REGULATE ALL BODIES OF WATER, EVEN IF THERE IS NO EVIDENCE THAT THE PARTICULAR BODY WOULD EVER BE NAVIGABLE.

NOT ONLY IS THIS A STAGGERING EXPANSION OF FEDERAL AUTHORITY, NOT TO MENTION THE STAFFING THAT WOULD BE REQUIRED, BUT IT IS ANOTHER MAJOR EXTENSION OF FEDERAL INTERFERENCE INTO PRIVATE LIVES, PRIVATE BUSINESS, AND LOCAL CONTROL.

THE CORPS HAS PUBLISHED ITS "INTERIM FINAL" REGULATIONS REQUIRING A "GENERAL PERMIT." THIS SEEMS TO LEAD TO THE ACCEPTANCE OF THE PREMISE THAT ALL AGRICULTURAL ACTIVITIES ARE "POINT SOURCES" OF POLLUTION. UNDER P. L. 92-500, THE WATER POLLUTION CONTROL ACT, CONGRESS CLEARLY STATED THAT ONLY CERTAIN ACTIVITIES WOULD BE CONSIDERED "POINT SOURCES" REQUIRING TREATMENT. THE COST OF THIS PERMIT IS $100, BUT THIS EXPENSE IS MISLEADING BECAUSE IT DOES NOT REFLECT THE COST TO THE FARMER IN TIME, EFFORT, AND DELAY TO SECURE THE PERMIT.

AN ANALYSIS BY SEVERAL FARM ORGANIZATIONS SHOWS THAT THE FOLLOWING STEPS WOULD BE NECESSARY TO MEET THE REQUIREMENTS BEING ESTABLISHED UNDER SECTION 404:

1. PERMIT APPLICATION -- THE APPLICATION WILL INCLUDE A COMPLETE DESCRIPTION OF PROPOSED ACTIVITIES; LOCATION; PURPOSE; USE; SCHEDULES; NAMES AND ADDRESSES OF ADJOINING PROPERTY OWNERS; ALL OTHER FEDERAL, STATE AND LOCAL AGENCY APPROVALS REQUIRED; THE TYPE, SOURCE, COMPOSITION, QUALITY AND TRANSPORTATION METHOD OF MATERIALS INVOLVED; AND OTHER INFORMATION REQUESTED BY THE DISTRICT ENGINEER.

2. Public Notice, Comments and Hearing -- Notice must be given by the District Engineer of the application allowing opportunities for and consideration of public comments to include public hearings.

3. Section 401 Certification -- The applicant must obtain certification from the state, when an activity would discharge into a navigable water, that the discharge will comply with the acceptable effluent limitations and standards for that particular watershed.

4. Coastal Zone Management Certification -- An applicant in a coastal zone area must obtain a certification from his respective state where the activity would affect land or water in the coastal zone.

5. Environmental Impact Statement -- The District Engineer must determine whether an EIS is necessary for the particular permit application, and if necessary, must complete prior to the hearing on the application.

6. Corps Decision Making -- The Corps must apply a complex and lengthy series of general and specific policies including factors and criteria mentioned in their own regulations, those of the Environmental Protection Agency and policies under numerous other statutes. The Corps must also engage in substantial interagency consultation.

7. EPA Review -- The EPA must consult with the Corps of Engineers and has final veto power if it determines the discharge will have an unacceptable adverse effect.

These requirements are in addition to applicable state and local requirements, which include compliance with state environmental policy acts, state forest acts, and state and local land use laws. Also, there are other federal requirements from specific agencies such as the Department of Agriculture which already must be complied with. It has been estimated by certain agricultural organizations that Section 404 permit requirements would take between six and twenty-four months for completion, depending on the specific project undertaken by the farmer.

THIS TYPE OF DELAY CAN BE ILL AFFORDED BY THE AGRICULTURAL COMMUNITY OR ANY OTHER TYPE OF BUSINESS. A DECISION IS MADE ON THE BASIS OF A NUMBER OF TANGIBLE AND INTANGIBLE CONSIDERATIONS BUT PARTICULARY DEPENDS ON IMMEDIATE NEED, ANTICIPATED NEED, AVAILABILITY OF CAPITAL, AND PRESENT COSTS. LENGTHY DELAYS CAN DO NOTHING BUT DETERIMENTALLY AFFECT THE BUSINESS PLANNING THAT HAS BECOME INCREASINGLY IMPERATIVE IN COMPLEX AGRIBUSINESS.

THE UNITED STATES DEPARTMENT OF AGRICULTURE HAS ESTIMATED THAT 60,000 ADDITIONAL PERMITS PER YEAR WOULD BE REQUIRED IF THE NORMAL CONSERVATION PRACTICES NOW BEING CARRIED ON BY USDA AND FARMERS ARE CONTINUED. EACH OF THESE CONSERVATION PRACTICES WOULD BE DELAYED, THUS PERPETUATING THE ENVIRONMENTAL PROBLEM THAT THE "PRACTICE" IS SEEKING TO SOLVE.

1. IF THE COURT DECISION TO EXPAND THE JURISDICTION OF THE CORPS TO ALL BODIES OF WATER, BOTH PUBLIC AND PRIVATE, IN EXCESS OF FIVE ACRES IS AN ACCURATE REFLECTION OF LEGISLATIVE INTENT, THEN IT SHOULD STAND.

   HOWEVER, IF THE CONGRESS SHOULD DECIDE THAT IT WAS NOT THEIR INTENTION TO EXTEND SUCH JURISDICTION, THEN IT SHOULD IMMEDIATELY ACT TO CORRECT THIS ERROR, by adopting legislation such as I have introduced

2. IF CONGRESS IS SERIOUS ABOUT ELIMINATING UNNECESSARY PAPER WORK, RED TAPE, AND BUREAUCRATIC INTERFERENCE, THIS IS THE ~~EXACT~~ specific PLACE TO BEGIN.

THE PROBLEM IS APPARENT, AND THESE HEARINGS STAND TO DRAW ATTENTION TO THE NEED FOR REMEDIAL LEGISLATION. THIS LEGISLATION IS ALREADY IN THE HANDS OF THE COMMITTEE, AND I WOULD AGAIN LIKE TO CONGRATULATE SENATOR RANDOLPH FOR THIS EFFORT TO MOVE THE SENATE TOWARD LANGUAGE THAT WILL SPECIFICALLY EXPRESS THE ORIGINAL CONGRESSIONAL INTENT. I URGE THE ~~REST~~ members OF THE PUBLIC WORKS COMMITTEE TO CONSIDER THE PRESENTATIONS MADE AT THESE OVERSIGHT HEARINGS AND REPORT A BILL, such as mine, TO THE FLOOR OF THE SENATE BEFORE THE END OF THIS SESSION.

Senator RANDOLPH. Senator, we understand that you consider this a very serious farm problem, not only to the larger farmer, but especially to the smaller farmer. Is that correct?

Senator BARTLETT. Particularly to the small farmer, yes, Mr. Chairman, I certainly do. I would say particularly to the smaller farmer. When you fly over many of the States, such as yours and the Southwest and Western States, you can see, particularly when the Sun is setting or rising, a great number of ponds that are affected by this, 5 acres or more.

So I think that in a sense we could say, Mr. Chairman, that the integrity of the Congress is at stake to protect itself, the sovereignty that has been given to it by the people, from confiscation by judicial action. I think this is the issue involved and I think the Congress should act very quickly to express its intent as it was originally intended.

Senator RANDOLPH. Senator Bartlett, in West Virginia the Soil Conservation Service, with local cooperation, has constructed at least 400 water impoundments, small lakes or ponds, throughout the agricultural sections of our State.

They are of real value, not only for the livestock, but also for the water necessary for the crops themselves, especially during periods of drought. Is that the situation in your State?

Senator BARTLETT. Just exactly, Mr. Chairman.

Senator RANDOLPH. I think you addressed yourself to this point last night, Senator Burdick.

Senator BURDICK. I would like to ask the Senator another question. I believe it is understood that this proposed law would have no application to stock ponds 5 acres or less. I raised the question last night and I ask you the same question.

You also outlined the various procedural steps that would be required for some of these farm impoundments which, incidentally, are not included in impoundments of fresh water. In order to determine whether or not it is 5 acres, an application would have to be made, wouldn't it, to have a formal finding that it was or was not 5 acres?

Senator BARTLETT. I think the Senator is raising a very basic and fundamental point because certainly a lot of them would be a little less or a little more than 5 acres.

Senator BURDICK. My point is that application has to be made to make that determination.

Senator BARTLETT. I agree with you. I can see that, because so many farmers' ponds would be just a little less or a little more than 5 acres. This would require an application, yes, to ascertain the size. Of course, this would be a requirement for any pond, so your point is well taken.

I agree that this would require general response from the farmers, regardless of the size of the ponds, to be able to show his pond was a certain size and would require in many cases, I think, a survey and an official determination as to whether it was 5 acres or more. But he would have to have it approved.

Senator BURDICK. We have another complication in my county. These ponds are produced by melting snows. It depends upon the snowfall. One year you may have a 3-acre pond and the next year you have a 9-acre pond. What would you do about that?

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Senator BARTLETT. I think this is just another example of what goes wrong when we have legislation by the courts. I think that they aren't in a position to consider these kinds of matters that you are presenting, and what would be done would be done by a bureaucratic fiat.

I don't know, but they would be able to apparently assume the authority as far as the courts would allow them. This is one of the basic things that have angered and frustrated the people in our States, that this takes place not because of legislative intent, but because of judicial determination.

I feel that this puts the Congress on the spot. We should respond and respond quickly. I certainly congratulate the chairman and the committee for their willingness to have this hearing tonight.

Senator RANDOLPH. Thank you, Senator.

Senator Buckley?

Senator BUCKLEY. No questions.

Senator RANDOLPH. Senator Hart?

Senator HART. No.

Senator RANDOLPH. Senator Domenici?

Senator DOMENICI. Mr. Chairman, I would like to thank Senator Bartlett for appearing. I don't know that I have a question of Senator Bartlett, but I listened last night and read a little bit on this question. I read the decision of the Corps. I would share with you for several minutes what I think happened.

It appears to me that in section 404, the original mistake that was made—and I say this having considered my remarks very carefully—the original decision by the Corps of Engineers as to what their jurisdiction was under section 404 was in fact far too narrow.

As a matter of fact, if they would have held to that and the courts hadn't ruled, then there would be very little or no jurisdiction over wetlands other than wetlands that abutted traditional navigable waters.

So those who felt that the Corps was wrong went to court with a very simple proposition which said that it was wrong and the act has a very broad definition in it of what navigable waters are. The court said the Corps is wrong, the act defines it as all waters, for purposes of our discussion. The Corps then had to live with that definition.

It appears to me that we did intend that the corps have somewhat broader jurisdiction than their traditional wetlands, but we didn't intend that they have jurisdiction over your ponds, my bridges, and Senator Burdick's 5½-acre pond.

But we have another very serious problem. That is that under section 402, EPA had some jurisdiction and it could delegate that jurisdiction. So that it could have begun a program wherein it would have delegated portions of its authority to the States.

In contrast, section 404, because of its nature, was nondelegable because we didn't want the Corps of Engineers to be delegating their jurisdiction, which was seen as peculiarly interstate in nature.

I don't think it is fair to be critical of the Corps of Engineers because, as a matter of fact, they are trying desperately to do what a court told them to do. If there was a mistake, it was very early on. If we could go back in history and trace that, we might be able to undo it.

I give you that, Senator Bartlett, so that you will know we have a very difficult decision and a very short time to make it. I appreciate your remarks and share some of the conclusions as to what we ought to try to do.

Thank you very much, Mr. Chairman.

Senator RANDOLPH. Thank you very much.

Senator Morgan?

Senator MORGAN. Mr. Chairman, I have no questions of the Senator, but I would like to take this opportunity to submit for the record a letter from the Governor of North Carolina with a two-page statement attached which contains remarks. He was unable to attend.

With the chairman's permission, I would like to submit it for the record.

Senator RANDOLPH. Yes; the correspondence from your Governor will be included and I am sure it will be helpful in the committee's deliberations.

[The letter referred to follows:]

STATE OF NORTH CAROLINA,
GOVERNOR'S OFFICE,
Raleigh, July 28, 1976.

Senator EDMUND S. MUSKIE,
Senate Committee on Public Works,
4204 Dirksen Building,
Washington, D.C.

DEAR SENATOR MUSKIE: The State of North Carolina had hoped to be represented at the hearings conducted by the Committee on Public Works pertaining to amendments to the Federal Water Pollution Control Act of 1972. Unfortunately, we were unable to obtain time on the hearings schedule. I would like to request that the attached statement which outlines our position on the amendments be inserted in the record in lieu of direct testimony.

Your cooperation in this matter is appreciated.

Sincerely,

JAMES E. HOLSHOUSER, JR.

Because our state was unable to appear before your subcommittee on July 27, I request that this statement be included in the record as North Carolina's position on the Federal Water Pollution Control Act of 1972, including Section 404.

While we certainly endorse the Senate's intentions to undertake a comprehensive review of this legislation next year, we would urge adoption of several proposals as quickly as possible. These include equitable formulas for distributing construction grant funds among the states, more realistic deadlines for completion of mandated water quality management plans, streamlined procedures for the review and approval of wastewater treatment plan applications, and extension of the deadline for compliance with 1977 treatment requirements. In approving HR 9560 the House of Representatives has already adopted several of these much needed changes.

We endorse the Talmadge-Nunn allocation formula, which would be based 50 percent on population and 50 percent on needs, as the most equitable formula for the distribution of "201" construction grant funds. The present formula is riddled with inaccuracies and has been repudiated by EPA. North Carolina is inequitably treated by the formula which is based entirely on needs.

We support the House-passed amendment to Section 203 of the Act, which would permit the consolidation of steps two and three for projects under one million dollars. This revision would clearly expedite the certification of small projects. Presently, in many instances, the current three-step process has caused excessive delays in the completion of small projects.

Water quality management planning as authorized in Section 208 of the Act is another area of critical concern. A recent Federal court ruling mandates the completion of such plans statewide by November, 1978. The experience of regional planning agencies across the country suggests that at least two and one-half years is required to produce a "208" plan, from the date of grant award to the actual

approval of EPA. At our request Senator Morgan has proposed an amendment to relate the deadline for plan completion to the award date for the planning grant. I urge your support of that amendment.

Section 13 of the House bill proposed amendment of Section 301 of the Act to allow extensions of the original deadline of July 1, 1977, for public treatment plants to meet secondary treatment standards. At present, it appears that less than half of the publicly-owned plants in the nation will be able to meet those standards. It seems only reasonable to permit defined extensions to those local governments that are making a conscientious effort to attain compliance.

In regards to Section 404, North Carolina would favor the introduction in the Senate of an amendment which would achieve the following:

A simple moratorium on the enforcement of Phase II and III permit requirements. The Congressional moratorium would remain in place for one year until a comprehensive review of P.L. 92–500 could be undertaken and completed by the next Congress. In the interim, the ACE would continue to require permits in Phase I areas only, and future permit requirements would not affect projects currently under contract for construction.

Our second preference would be as follows:

The Wright/Hart Amendments with certain clarifications and additions. . . .

(a) With regard to the Wright amendment: The definition of navigable waters should be revised to include waters which have been used in the past as a means of transport in interstate commerce as well as those which are or could be used in this manner, (Section 404(d)(1) of the amendment). This revision would make the Wright definition synonomous with the definition of navigable waters in existing ACE Regulation, 33 CFR 209.120(d)(1) which governs permits under the 1899 Act.

The section outlining the exemption of federal or federally assisted projects which require an environmental impact statement or assessment is too broad. It should be made more specific or eliminated.

Any amendment should include a section which allows the ACE to delegate the permit programs to the states with a provision for penalties. In addition, there should be a provision authorizing mutual agreements between state governors and the ACE to allow designation of wetlands in addition to those covered in the Phase I definition.

(b) With regard to the Hart amendment: We are supportive of the provision to exempt from permit requirements normal farming, silviculture, ranching activities, certain maintenance activities or regulation of farm stock ponds or irrigation ditches.

We support the authority for issuance of general permits.

We are concerned about the use of the wording "minimal adverse cumulative effect" which is vague and can vary greatly depending upon the issuance of regulations. This should be clarified in the Hart Amendment.

A provision for delegation to states of the responsibility for the administration of the permit program should be added.

We support that portion of the Hart Amendment which exempts from permit requirements the maintenance of existing structures, etc. (Section 404, paragraph 2).

Senator RANDOLPH. Senator Baker?

Senator BAKER. Mr. Chairman, I don't want to impose on Senator Bartlett's time. In general I think it was a very excellent statement. I thank you for taking the time to appear and express your concern.

Senator BARTLETT. Mr. Chairman, could I say one brief, final statement?

Senator RANDOLPH. Yes.

Senator BARTLETT. I thank you, very much. I do want to thank you for undertaking what I know is a difficult job. I do also feel assured that the farmers in the United States are going to receive some relief that they greatly need.

Thank you.

Senator RANDOLPH. Thank you, very much, for your presence and for your counsel and wisdom.

We are privileged tonight to have a panel composed of more individuals than appeared last night.

Mr. McCredie, Mr. Speth, Mr. Ritchie, Mr. Clapper, Mr. Hawley, Mr. Callison and Mr. Barthauer. Tonight, as I look at the panel, I see a West Virginian on the list whom I will call as our first witness, William S. Ritchie, Jr., the highway commissioner, speaking not for the State of West Virginia but for the American Association of State Highway and Transportation Officials. Thank you very much.

Mr. Ritchie, if you will proceed.

STATEMENTS OF WILLIAM S. RITCHIE, JR., AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS; CHARLES H. CALLISON, NATIONAL AUDUBON SOCIETY; WILLIAM H. McCREDIE, NATIONAL FOREST PRODUCTS ASSOCIATION ACCOMPANIED BY: HARRIET B. MARPLE, ENVIRONMENTAL ATTORNEY, INTERNATIONAL PAPER CO. AND DAVID C. NICHOLSON, ASSISTANT DIRECTOR, ENVIRONMENTAL RESOURCES, WEYERHAEUSER CO.; GUS SPETH, NATURAL RESOURCES DEFENSE COUNCIL; G. L. BARTHAUER, AMERICAN MINING CONGRESS; LOUIS CLAPPER, NATIONAL WILDLIFE FEDERATION, ACCOMPANIED BY: KENNETH S. KAMLET, FEDERATION COUNSEL; LAURENCE JAHN, ECOLOGIST, WILDLIFE MANAGEMENT INSTITUTE AND JOHN CLARK ECOLOGIST, CONSERVATION FOUNDATION; AND BRUCE HAWLEY, AMERICAN FARM BUREAU FEDERATION

Mr. RITCHIE. Thank you very much, Mr. Chairman. I appreciate the opportunity to appear here on behalf of the American Association of State Highway and Transportation Officials.

I have a prepared statement that I would like to submit for the record and I would like to talk very briefly of that statement, without reading the statement.

Senator RANDOLPH. Yes; it will be made a part of the printed record. (See p. 162.) That will apply to all of the witnesses.

Mr. RITCHIE. Thank you, sir.

The American Association of State Highway and Transportation Officials supports appropriate and adequate efforts to protect water quality and valuable wetlands in each of our States. We do not believe, however, that a national land use permit program administered by the U.S. Army is appropriate to the protection of these wetlands. We feel that there should be reasonable limits on the areas for which a permit is required and that there should be a reasonable limit on the activities for which a permit is required. We feel that the States can best determine what areas and activities should be controlled and how they should be controlled.

Because highway and railroad construction is of linear configuration, almost all highway and railway projects touch some body of water. We feel that many of these contacts that are made do not have an environmental significance in and of themselves. Public highway projects are already subject to stringent environmental controls at both the State and the Federal level. We have at least 15 laws providing for protection of the wetlands.

Based on a survey that AASHTO has made—and I would like to submit a copy of the results of that survey for the record, if I might.

Senator RANDOLPH. Is that a recent survey?
Mr. RITCHIE. Yes; in the last 2 weeks.
Senator RANDOLPH. Thank you.
[The survey appears at p.171.]
Mr. RITCHIE. We estimate that 5,000 additional permits would be required annually for highway projects under phase II of the Corps' regulations. The processing of these permits would take months and even years in some cases if the permit results in an environmental statement being prepared on a project that would not otherwise require an environmental statement. I am referring particularly to projects which would be funded 100 percent by State funds, and which would now possibly come under a full environmental statement submitted through the channels to the Federal level.

We do have in the States now, as a result of our action plan under the Federal Highway Administration, an environmental overview, for an environmental statement if necessary or a negative declaration on State projects. This would require additional permits above and beyond the permits that are now required in my State, for instance, by the Department of Natural Resources or the Department of Health, for the protection of the water in our State.

Of 27 of the 37 States responding to an inquiry that we made concerning the possibilities of general permits, we find that only one State has received a general permit from the Corps of Engineers. That was in the case of about 100 yards of deposited material.

Senator RANDOLPH. That would hardly be a permit, would it?

Mr. RITCHIE. It was hardly so, sir. We feel that the placement of the fill differs drastically from a continuous discharge from pipes and cannot be meaningfully controlled by effluent limitation for point sources. The controls for the nonpoint sources are more appropriate for this activity because it is a temporary activity and is completely covered, we feel, in our presentation of an environmental statement in preparation for the construction of any Federal aid project that we have in our State.

Again, I would like to state that we feel that for any project that is not a Federal aid project, we have adequate controls and regulations within each of our States to control this problem.

Thank you, sir.

Senator RANDOLPH. Mr. Ritchie, what has been the effect of phase 1 on the highway construction programs throughout the country?

Mr. RITCHIE. I don't doubt at all, sir, that it has increased the cost, because any delay in time of construction is an increased cost. I think that it is also a duplication of previous permits and similar permits that we do receive from some other source or have to have approved by another source. So it is a delay in the construction of the project, and I don't believe that it really goes beyond or increases the protection to the water control that it is intended to have.

Senator RANDOLPH. Do you have a question, Senator Gravel?
Senator GRAVEL. No.
Senator RANDOLPH. Senator Baker?
Senator BAKER. Mr. Chairman, I have no questions at this time.
Senator RANDOLPH. Senator Bentsen?
Senator BENTSEN. No questions.

Senator RANDOLPH. Senator Buckley?
Senator BUCKLEY. No.
Senator RANDOLPH. Senator Hart?
Senator HART. No, Mr. Chairman.
[Mr. Ritchie's statement and the survey previously referred to follow:]

STATEMENT OF
WILLIAM S. RITCHIE, JR., COMMISSIONER OF HIGHWAYS
WEST VIRGINIA DEPARTMENT OF HIGHWAYS

BEFORE THE
SENATE PUBLIC WORKS COMMITTEE
July 28, 1976

Mr. Chairman, members of the committee, my name is William S. Ritchie, Jr., Commissioner of Highways for the State of West Virginia. I am appearing on behalf of the American Association of State Highway and Transportation Officials. As you know, AASHTO is an organization formed to foster the development and operation of a nationwide transportation system. Its members are the respective highway and transportation departments of each of the 50 States, the District of Columbia, and Puerto Rico, and the United States Department of Transportation.

At the outset, may I express our appreciation for your asking us to appear to discuss a problem of serious concern to us, as well as to others who are testifying before you today.

We also would like to endorse certain major features of the testimony of each of the witnesses appearing before you today.

As State officials, we would like to associate ourselves with views expressed on behalf of environmental groups in support of appropriate and adequate efforts to protect water quality and valuable wetlands.

We differ, however, in our views on what action should be taken, and who should determine what water and wetlands should be protected.

Accordingly, we strongly endorse proposals made by others to place reasonable limitation on activities and areas covered and on the scope of review, and to place maximum reliance on State programs, instead of a National land use program administered by the United States Army.

Because of their linear configuration, almost all highway, as well as railroad, projects touch upon some body of water included in the expanded area covered by the Corps' regulations of July 25, 1975. With rare exception, however, these activities have no significant impact on water quality and all work conducted by public highway and transportation departments already is subject to stringent environmental controls, including measures to protect water quality.

We wish to emphasize that public highway projects in streams or wetlands are already subject to a wide range of State and Federal restrictions which should be sufficient to protect water quality and valuable wetlands. Highway projects are subject at both the State and Federal levels to three general levels of environmental controls: (1) those which apply to all activities in wetlands and waterways; (2) those which apply only to public works or projects for which Federal assistance is made; and (3) those which apply to highways only.

At the Federal level, Congress has enacted at least 15 laws, other than sec. 404 of the Federal Water Pollution Control Act, to regulate, or promote the regulation of, activities in wetlands. As alternatives to a comprehensive direct Federal land use control program, such as the Corps' sec. 404 regulations would impose, Congress has taken at least three different approaches to address what it determines are national

problems in the protection of wetlands. These approaches include: (1) acts, such as the Coastal Zone Management Act, to encourage States to control such areas, (2) acts to fund programs to acquire areas, such as the Wetlands Acquisition Act, or to fund the protection of fish or wildlife, such as the Federal aid in Wildlife Restoration Act or the Federal aid in Fish Restoration Act, USC, and (3) acts to protect certain areas or species, such as the Wild and Scenic Rivers Act, or the Endangered Species Act of 1973. The laws in the third category, enacted to provide direct Federal controls to protect areas or species, have their own enforcement mechanisms.

State laws also regulate all activities in wetlands and water areas. A recent survey conducted by the Interstate Conference on Water Problems found that at least 26 of the States had programs which met, or could meet the significant features of the Corps' regulations for sec. 404 of the Federal Water Pollution and Control Act.

In addition to these restrictions which apply to all construction in wetlands or water areas, many highway projects are subject to requirements imposed on Federally assisted projects. The most notable of these are imposed by the National Environmental Policy Act (NEPA). The Council on Environmental Quality (CEQ) guidelines direct agencies to consider possible adverse effects on water quality and land use in the preparation of an EIS. Pursuant to sec. 309 of the Clean Air Act, EPA reviews each EIS with the opportunity to comment on the discussion on water quality. FHWA regulations go even further to specifically require consideration of impacts on water quality (23 CFR 771.18) wetlands and and coastal areas, stream alterations and impoundments, and flood hazards.

Other Federal acts impose additional restrictions on Federally assisted activities in wetlands or water areas, such as those imposed by sec. 307(c) of the Coastal Zone Management Act.

Construction conducted by public agencies also is subject to additional restrictions on the State level. The Council on Environmental Quality in its Annual Report for 1975 listed 18 States with comprehensive environmental policy acts patterned after NEPA, and about one-half dozen other States with specialized programs, directed largely to the protection of wetlands or the control of highway projects. Several States have adopted the practice of preparing environmental assessments which would meet the requirements of NEPA for highway projects for which no Federal assistance is provided. This practice is followed largely because at the initial stages of highway projects it is not known whether or not funding will come from Federal sources.

Finally, there are statutory provisions to regulate the impact of highways, per se, in acquatic areas. At the Federal level, these restrictions include sec. 109(g) of title 23 of the U.S. Code, which requires the imposition of guidelines for minimizing possible soil erosion from highway construction, and sec. 109(h) of title 23, which requires the development of action plans to eliminate or minimize adverse environmental effects, including water pollution. Sec. 4(f) of the Department of Transportation Act, 49 U.S.C. 1653(f) prohibits the use of any publicly owned land from a park, recreation area, or wildlife or water fowl refuge, unless there is no feasible or prudent alternative and such use includes all possible plans to minimize harm.

Design standards approved by FHWA under sec. 109 of title 23 provide another important means to control the impact of highway construction on water quality. These approved standards, which are listed in sec. 625.3 of title 23 of the Code of Federal Regulations, include a wide range of standards developed by AASHTO for the purpose of protecting water quality and the environment.

AASHTO recently asked its member departments to list the State agencies from which permits must be obtained or which comment on highway projects for impact on water quality. Forty of the 45 who responded reported that one or more State agencies reviewed such activities. A list of the State agencies is attached.

The impact of the new regulations on transportation programs would become significant as soon as the expanded area covered under phase II of the regulations would become effective to cover primary tributaries, wetlands adjacent to them, and lakes of five acres or more. Based on a questionnaire distributed to member departments of AASHTO last month, we estimate that 5,000 additional individual permits would be required for highway projects, alone, under phase II of the regulations.

It is taking months to process these permits which duplicate other environmental reviews. For instance, New York and Texas report that it has taken from four to six months to process a routine sec. 404 permit, but that this time framework would be expanded as more permits are required. Both New York and Texas face added difficulty because there are five different District Offices, with slightly different

requirements, which have jurisdiction in different areas of the States.

Tennessee reports that it applied in December, 1975 for permits in Scott and Hamilton Counties, but permits have not yet been issued. These delays can stretch into years if an EIS is required solely for the sec. 404 permit. These delays will be particularly troublesome to the bridge replacement program.

These delays will also result in the loss of anticipated employment in the construction industry at a time when unemployment remains at the level of 17.8 percent. The Federal Highway Administration has estimated that expenditure of $1 billion for highway construction will generate 26,000 man years of direct on-site employment; 29,000 additional man years of off-site employment; plus 77,750 man years of induced employment. Furthermore, State officials estimate that $1 billion of highway construction will provide employment for approximately 8,000 additional employees at various governmental levels for planning, designing, and supervising the contract work. This governmental employment should induce 28,000 additional jobs.

At the suggestion of officials in the Corps and EPA, State highway and transportation officials have expended considerable efforts to develop general permits which might bring some relief by exempting many highway activities from requirements for individual permits. The response from the 37 different District Offices of the Corps have been mixed. Some have encouraged applications for general permits, while others have discouraged them. Most significantly, however, even those offices which have encouraged proposals for general permits have not, with one exception to our knowledge, issued any general permits for highway activities. That one exception, in Idaho, was for very small discharges of one hundred cubic yards or less for bridges or culverts.

AASHTO has asked its Member Departments to report on their experience in applying for general permits. Twenty-seven of the 37 States responding reported that they had sought general permits, but with the exception of Idaho, none had been obtained.

We will continue to work with the Corps and EPA in efforts to develop general permits, but do not believe that general permits, in themselves, will bring sufficient relief.

As stated above, we believe the regulations of the Corps are unreasonably excessive in (1) coverage of activities, (2) area covered, and (3) the scope of review.

With regard to activities covered, we question the appropriateness of the use of a permit program to regulate the placement of fill material in connection with highway construction as a point source of water pollution. The placement of fill material appears to differ significantly from a continuous discharge of chemical waste from a pipe or similar fixture which can be regulated by meaningful effluent limitations. The placement of fill for highway projects does not normally present problems for effluent limitation, except for temporary turbulence in a limited area. It would appear that this impact on water quality would more appropriately be regulated as a non-point source under sections 208 or 303 of the Act, with possible reliance on sections on sections 307 and 311 to restrict any placement of toxic or hazardous materials.

Curtailment of erosion is important for sound highway foundations as well as for the protection of water quality

The most significant environmental impact of the placement of fill in waterways on wetlands is more likely to result from permanent changes in the shorelines or subsurface elevations. Control of these areas, however, appears to be a question of land use control, which we believe should be developed for implementation at the State and local level, rather than by the United States Army.

The area covered for the regulation of fill by these regulations goes well beyond the area in which there appears to be any National interest in the placement of fill and into areas in which the placement would have not been environmentally significant. We believe that areas, particularly wetlands, which deserve protection, can best be identified at the State level. We do not object to Federal assistance in the identification of such areas, but believe that the basic land use decisions should be made at the State and local level. Furthermore, there is now a void of Federal guidance in the identification of significant areas, which was recognized by the Senate on May 26, 1976, when it passed the Land and Water Resource Conservation Act of 1976 (S2081), which directs the Soil Conservation Service to conduct an inventory of significant land, water, and related resources.

With regard to the scope of review, we object to the 34,000 word regulations of the Corps, which include as part of a so-called public interest review matters which appear to have no relation to the Federal Water Pollution Control Act. Furthermore, we object to provisions in the guidelines issued by EPA which appear to place unrealistic emphasis on the protection of any vegatation or wildlife regardless of other consideration.

State officials object to the placement of Federal land use controls and requirements for Federal permits for activities funded entirely with State money.

With regard to specific legislative proposals now before the Congress, we favor the approach of S1878 which would restrict the jurisdiction of the sec. 404 program to waters which are navigable in fact. We would, however, be willing to accept a compromise approach similar to that contained in the so-called Wright amendment which would extend jurisdiction to those additional wetlands adjacent to coastal or navigable waters and to those additional waters designated by the Governor of the State in which they are located as environmentally significant.

We find the so-called Cleveland-Harsha amendment, which was considered by the House, to be unacceptable because it would leave too large an area subject to requirements for Federal permits. Also, it would appear to create new problems because: (1) the enumeration of specific statutory exemptions for some activities may raise questions about the authority of the Corps to exempt activities by regulation, and (2) the specific authority for general permits under sec. 404 may raise questions over the authority to issue general permits under other sections, particularly sec. 402. We have similar concerns about those provisions in the Wright amendment on statutory exclusions and general permits. Also, we believe the Wright amendment should provide for the delegation of the permit program for the States in all areas and not just the adjacent wetlands.

ATTACHMENT

State Agencies Reviewing Activities

Alabama Water Improvement Commission

Alabama State Docks

Alaska Department of Fish & Game

Alaska Department of Environmental Conservation

Arizona Water Commission

California State Reclamation Board

California State Water Quality

California Coastal Zone Conservation Commission

California State Lands Commission

California Department of Fish and Game

Colorado Department of Health, Water Quality Control Division

Colorado Department of Natural Resources

Colorado Division of Wildlife

Connecticut Department of Environmental Protection

Delaware Department of Natural Resources and Environmental Control

Florida Department of Environmental Regulation

Hawaii Department of Health, State of Health

Idaho Department of Water Resources

Illinois Department of Conservation

Illinois Division of Water Resources Management

Illinois Environmental Protection Agency

Indiana Department of Natural Resources

Indiana Stream Pollution Control Board

Iowa Department of Environmental Quality

Iowa Conservation Commission

Iowa Natural Resources Council

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Kansas Board of Agriculture, Division of Water Resources

Kansas Board of Health

Kentucky Department for Natural Resources and Environmental Protection, Division of Water Quality

Maine Department of Environmental Protection

Maine Inland Fisheries & Wildlife

Maine Land Use Regulation Commission

Maryland Department of Natural Resources, Water Resources Administration

Michigan Hydrological Survey Division

Michigan Bureau of Water Management

Michigan Department of Natural Resources

Minnesota Department of Natural Resources and Watershed Districts

Mississippi Air and Water Pollution Control Commission

Mississippi Marine Resources Council

Missouri Department of Natural Resources

Montana Department of Health and Environmental Sciences (MDHES)

Montana Department of Fish and Game

Montana Department of Natural Resources and Conservation

Nebraska Department of Environmental Control

Nebraska Game and Parks Commission

Nebraska Natural Resources Commission

Nebraska Department of Water Resources

Nevada Department of Fish & Game

Nevada State Health Department, Environmental Services Division

New Hampshire Special Board for Dredge and Fill

New Hampshire Water Supply and Pollution Control Commission

New Jersey Bureau of Water Control, Division of Water Resources

New Jersey Bureau of Marine Lands Management, Division of Marine Services

New Mexico Health & Social Services

New Mexico Water Quality Division

New Mexico Environmental Improvement Agency

New Mexico Game & Fish

New Mexico State Engineer

New Mexico State Parks & Recreation

New Mexico Interstate Stream Commission

New Mexico State Land Office

New Mexico State Museum (of New Mexico)

New Mexico Natural Resources Conservation Commission

New Mexico State Planning Office

New York State Department of Environmental Conservation

North Carolina Department of Natural & Economic Resources

North Dakota State Health Department

Ohio Department of Natural Resources

Ohio Environmental Protection Agency

Oregon Division of State Lands

Oregon Department of Fish and Wildlife

Oregon Department of Environmental Quality

Pennsylvania Department of Environmental Resources

Pennsylvania Fish Commission

Rhode Island Coastal Resources Management Council

Rhode Island Department of Health

Rhode Island Department of Natural Resources

South Carolina State Budget and Control Board

Utah State Division of Water Rights

Utah State Division of Health

Vermont Department of Water Resources

Vermont Department of Fish and Game

Vermont Water Resources Board (for lakes and ponds)

Virginia Marine Resources Commission

Washington Department of Ecology

Washington Department of Natural Resources

Washington Department of Fisheries

Washington Department of Game

Wisconsin Department of Natural Resources

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

It is estimated that the Alabama Highway Department will be required to obtain approximately 25-30 permits for projects under Phase II of the Corps' regulations.

Please describe, briefly, any activities for which you have sought general permits.

A list of the following activities was sent to the Corps with the request that they be considered for a general permit:

Minor roadway and bridge abutment fills, riprap and slope paving, temporary erosion control structures, bulkheads and backfill, dolphins and fender systems for bridges, temporary detour and haul roads, drainage pipes and minor culverts, minor channel improvement, submarine and aerial cables, etc.

Please relate the status of all applications for general permits.

We began negotiating for a general permit with the Mobile District of the Corps of Engineers in November of 1975, when we sent a list of activities which we felt should be covered. Since then we have had several discussions with them concerning the requested general permit. The Corps is currently coordinating with other federal and state agencies to work out an acceptable general permit. They estimate it will be another 3-5 months before a general permit can be in effect.

Ray W. Bass
Signed
State of Alabama Highway Department
Member Department
June 17, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   We anticipate we could get by with 50 permits. However, with all streams discharging directly into the ocean considered major tributaries by the Corps of Engineers, we could be required to apply for as many as 900 permits unless we get relief by general permit procedure.

2. Please describe, briefly, any activities for which you have sought general permits.

   We have applied for a general permit covering bridge approaches and culvert fills.

3. Please relate the status of all applications for general permits.

   We are still negotiating with the Corps of Engineers. They are in basic agreement with our proposal but progress is slow due to limited Corps of Engineers' personnel.

for Signed
State Highway Engineer
Alaska Dept. of Highways
Member Department

6/18/76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

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1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

Three

2. Please describe, briefly, any activities for which you have sought general permits.

Not applicable

3. Please relate the status of all applications for general permits.

Not applicable



Signed

ARIZONA
Member Department

June 22, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   It is anticipated approximately fifty Sec. 404 permits will be required by the Department for jobs programmed within the next 5 or 6 years. At least eight permits will be required before July 1, 1977.

2. Please describe, briefly, any activities for which you have sought general permits.

   See general permit attached submitted to local District Corps of Engineers on December 4, 1975.

3. Please relate the status of all applications for general permits.

   No action at time.

   We are also enclosing a copy of the operating guidelines for Sec. 404 permits in Arkansas. We recorded these June 1, 1976.



B. K. Cooper
Signed

Arkansas State Highway Department
Member Department

June 24, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   TWO.

2. Please describe, briefly, any activities for which you have sought general permits.



3. Please relate the status of all applications for general permits.

Ralph B. Sheffer
Signed Ralph B. Sheffer
D. C. Department of Transportation
Member Department
June 22, 1976
Date

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341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   There will be approximately 100 Section 404 Permits required for DOT projects during Phase II of the Corps' regulations. Of these it is estimated that approximately 30 are due to the expanded jurisdiction of Phase II.

2. Please describe, briefly, any activities for which you have sought general permits.

   Due to the Florida Department of Environmental Regulation's present position on Water Quality Certification, it is virtually impossible to effectively develop any general permits.

3. Please relate the status of all applications for general permits.

   N/A

Tom Webb
Signed

Florida Department of Transportation
Member Department

June 25, 1976
Date

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June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

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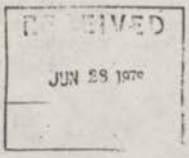
200

2. Please describe, briefly, any activities for which you have sought general permits.

None



3. Please relate the status of all applications for general permits.

None

E. Alvey Wright
Signed

HAWAII
Member Department

June 23, 1976
Date

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AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

We anticipate that 10 Sec. 404 permits will be required for FY 1977 projects.

2. Please describe, briefly, any activities for which you have sought general permits.

The State of Idaho has been issued 2 General Permits to date for fills placed in conjunction with culverts and bridges. The one permit covers fills on federal lands and the other on non-federal lands. Under these general permits the quantity of fill within the ordinary high water rectangular prism for the placement of culverts or behind abutments for bridge approaches cannot exceed 100 cubic yards.

3. Please relate the status of all applications for general permits.

No other applications are pending

E D Tindale
Signed

Idaho
Member Department

June 22, 1976
Date

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June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

86

2. Please describe, briefly, any activities for which you have sought general permits.

NONE



3. Please relate the status of all applications for general permits.

NONE

NOTE: This information was relayed by telephone to Mr. Stafseth by Roger Nusbaum on June 24.

H R Hanley
Signed
ILLINOIS
Member Department
June 24, 1976
Date

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Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Indiana State Highway Commission Projects - - - - 25
   County Highway Projects - - - - - - - - - - - 75

2. Please describe, briefly, any activities for which you have sought general permits.

   We have requested a general permit for the activities associated with construction of bridges and culverts. This will include construction of foundations, backfilling of foundation excavations and placement of slope protection.

   To date the Corps of Engineers has declined to start processing of this general permit.

3. Please relate the status of all applications for general permits.

   No general permit has been issued for any activity at this time, in fact, no section 404 permit has been fully processed and a permit issued for any highway project.



Roger J. Mund
Signed EXECUTIVE DIRECTOR

Member Department

JUN 2 7 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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341 National Press Building
Washington, D.C. 20045

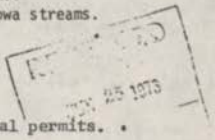
June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Twenty on the primary road system. Counties will submit additional applications for secondary road projects.

2. Please describe, briefly, any activities for which you have sought general permits.
   1--Minor modification of stream channels at bridge sites (new construction & maintenance).
   2--Constructing temporary causeways (contractor access).
   3--Construction of temporary stream crossing (contractor access).
   4--Constructing culvert footings in interior Iowa streams.
   5--Constructing encased pile bent piers in interior Iowa streams.
   6--Constructing bridge pier footings in interior Iowa streams.
   7--Minor bank modifications at bridge sites over interior Iowa streams.
   8--Rip-rap bank protection for interior Iowa steams.



3. Please relate the status of all applications for general permits.

   General permit applications were sent to the Corps on February 6, 1976. The Corps indicated verbally on June 21, 1976, that they are just beginning to process the applications.

H R Summerson
Signed

Iowa Department of Transportation
Member Department

June 22, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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June 11, 1976

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   Three on Primary System.

   Seven on Secondary System.

2. Please describe, briefly, any activities for which you have sought general permits.

   Application for a General Permit has been made covering the installation and backfill of small drainage structures including pipes and RCB culverts less than 20' span, channel cleaning, or relocation not to exceed 750' in length, low water crossings, bridge pier construction, berm protection, spur dikes, erosion control, structures, core drilling, repair and maintenance of existing factilities, the snagging, clearing and removal of debris at structures.

3. Please relate the status of all applications for general permits.

   A General Permit now is being processed by the Corps of Engineers. The Corps of Engineers has requested additional information for its use in preparing a Public Notice.

Signed
Kansas Department of Transportation
Member Department
June 28, 1976
Date

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341 National Press Building
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June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   A projected estimate of the number of phase II permits is 20 per year.
   A projected estimate of the number of phase III permits is 42 per year.

2. Please describe, briefly, any activities for which you have sought general permits.
   1. Placement of 750 cubic yards or less of slope protection at bridge sites.
      a. Dry cyclopean stone
      b. Crushed Aggregate
      c. End Dumped Stone
   2. Construction of box culverts and minor channel changes
      a. fill material, 2000 cubic yards or less
      b. excavation, 2000 cubic yards or less
      c. channel change length, 600 ft. or less
      d. bottom surface area, 1000 square yards or less

3. Please relate the status of all applications for general permits.

   Initial correspondence with suggested quantity limits and materials has been made to Corps of Engineers - pending review and processing.

John C. Johnson P.E.
Signed
Secretary, Kentucky Dept. of Transportation
Member Department
June 23, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

76-161 O - 76 - 13

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Primary tributaries to navigably waters - 24
   Wetlands adjacent to primary tributaries - 3 — Includes county projects not on state system.

2. Please describe, briefly, any activities for which you have sought general permits.

   1. Single or multi-cell reinforced concrete box culverts.

   2. Corrugated metal and concrete pipes and pipe arches up to 144" in diameter. Single or multiple pipe installation up to four parallel adjacent pipes.

   3. Rock and soil borings for soil surveys and foundation design.

3. Please relate the status of all applications for general permits.

   A draft of 1 and 2 under 2 above is being circulated by the Corps of Engineers to coordinating agencies as of June 10, 1976 for initial comments.

   Corp of Engineers has determined no permit necessary for 3 above.

   The Administration is presently preparing a general permit request for "Channel and Slope Protection". Work is approximately 80% complete.

Signed
Maryland Department of Transportation
State Highway Administration
Member Department

Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   In fiscal 1977 we expect to submit 150 to 170 Sec. 404 permit applications to the COE. Of these, 40 to 50 will involve stream crossings or lake and wetland encroachments due to normal highway improvements. The remainder will involve a bridge replacement program on the township, county, municipal and trunk highway systems financed in part by a 50 million dollar Bridge Act passed by the Minnesota Legislature..

2. Please describe, briefly, any activities for which you have sought general permits.

   We have begun discussion with the COE relative to identifying categories of projects, such as bridge replacements or culvert extensions, to which general permits would be applicable. No consensus has yet been reached, therefore no general permits have been applied for.

3. Please relate the status of all applications for general permits.

Frank D. Mongtella
Signed

Minnesota Highway Department
Member Department

June 18, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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JUN 28 1976

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   25

2. Please describe, briefly, any activities for which you have sought general permits.

   We have requested a general permit for maintenance dredging operations, i.e., channel, ditch and culvert cleanout. Additionally, we have requested a general permit for highway construction. The local Corps District is desirous of combining the two.

3. Please relate the status of all applications for general permits.

   We have had six meetings with the Corps of Engineers relative to general permits for both maintenance and construction of highways. The local district seems to think it preferable and is working toward one permit for both activities. Through these meetings we have furnished information relative to typical highway fill and dredge activities, typical bridge crossings of streams, specifications relative to contract requirements regarding the control of siltation and pollution, and copies of environmental assessments of highway work. The Corps is using this information in evaluating the general permit. A public notice has not yet been issued.

[signature]
Signed Director

MISSISSIPPI
Member Department

June 24, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

235/year

2. Please describe, briefly, any activities for which you have sought general permits.

Bridge construction and related construction such as temporary haul roads, bank trimming, minor channel realignments, rock blankets, spur dikes, revetments along streambanks and removal of existing bridge structures that are being replaced by new structures.

Routine daily maintenance of bridge structures, such as channel cleanouts, removal of drift at bridge sites, removal of brush in channel at bridge site and flood damage repair. All of the above new construction is in Phase II and III waters and maintenance activities in Phases I, II and III waters.

3. Please relate the status of all applications for general permits.

General Permit application is presently being processed in the Kansas City District Corps' Office.

Robert N. Hunter
Signed

Missouri State Highway Department
Member Department

June 22, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Under Phase II Nevada anticipates no requirement for Section 404 permits; however implementation of Phase III would seriously affect our program to the extent of requiring an estimated 40± permits.

2. Please describe, briefly, any activities for which you have sought general permits.

   Nevada is in the preliminary stages of preparing a general permit request for excavation, installation and backfill for culverts and bridge abutments.

3. Please relate the status of all applications for general permits.

   Nevada's submission of an application for general permit consideration is pending.

Grant Bastian

Grant Bastian Signed State Hwy. Engr.
Nevada
Member Department
6-22-76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

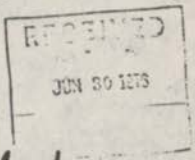
   ESTIMATED AT 25

2. Please describe, briefly, any activities for which you have sought general permits.

   WE ARE PRESENTLY WORKING OUT THE DETAILS ON A GENERAL PERMIT FOR SMALL BRIDGE AND CULVERT WORK. THIS GENERAL PERMIT HAS YET TO BE FINALIZED WITH THE CORPS OF ENGINEERS.

3. Please relate the status of all applications for general permits.

   PENDING AT THIS TIME



Robert B Dowst

R.B. Dowst, P.E., Assistant Special Services Engineer
NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS & HWYS.
Member Department

June 24, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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341 National Press Building
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June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

(See Attachment)

2. Please describe, briefly, any activities for which you have sought general permits.

(See Attachment)



3. Please relate the status of all applications for general permits.

(See Attachment)

Signed
New Jersey Department of Transportation
Member Department

June 25, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AASHTO QUESTIONNAIRE

QUESTION NO. 1

The chart entered below, represents our best estimate at this time of the number of Phase II applications projected for July 1, 1976 to July 1, 1977, some of which are in the process mill:

404 Phase II Permits (July 1, 1976 - July 1, 1977)

Design Area		Anticipated Applications
Design Area I	=	71
Design Area II	=	15
Design Area III	=	90
Design Area IV	=	30

Total Anticipated applications next 2 years = 206

QUESTION NO. 2

On February 9, 1976, NJDOT met in the Philadelphia District COE and presented 5 suggested General Permit formats which we felt would be fair and cov cover us for general categories and lower volume deposits during Phase II and III of the 404 Permit Program. These categories were as follows:

1. Excavation and Embankment
2. Drainage Structures
3. Soil Stabilization
4. Electrical and Utility Construction
5. Bridge Structures

The COE Philadelphia District, from our submission, has developed 11 General Permit formats which COE feels fulfills the mandates of Section 404. Since it turns out that the COE interpretation of "fill material" is limited to placement of soil aggregates only, NJDOT effort in presenting the 5 above types was a bit more ambitious than was really required in developing General Permits to cover "fill material". The Philadelphia District COE, on April 22, after various meetings with NJDOT, informed us of their intent to promulgate 11 General Permits as follows:

1.	Private Recreational Docks	New Jersey
2.	Private Recreational Docks	Delaware
3.	Beach Restoration	Delaware
4.	Submarine Cables	New Jersey
5.	Mooring Bouys	Philadelphia District
6.	Piers, Recreational	New Jersey
7.	Pier, Recreational	Delaware
*8.	Roadway Fills (NJDOT Spec.)	New Jersey
*9.	Stream Bank Protection (NJDOT Spec.)	New Jersey
10.	Bulkheading, Mean Highwater	New Jersey
11.	Bulkheads and Fills	New Jersey

QUESTION NO. 3

General Permits No. *8 and *9 which are of great importance to NJDOT and which have received much NJDOT attention and monitoring NJDOT have been completed by the Philadelphia COE to Stage 4, Shown Below.

Stage

1. Permit Text and Conditions developed
2. Environmental Review Stage Complete (Neg.)
3. District Engineer approval imminent.
4. Public Notices imminent
5. Public Notices Posted.
6. EIS (not anticipated)
7. Public Meetings (not anticipated)
8. Public Hearings (not anticipated)
9. Final Review
10. Availability

We have been advised that the month of October, 1976 would appear to be earliest which we could expect to utilize General Permit No. 8 and Semptember 1976 for No. 9

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   150 Permits.

2. Please describe, briefly, any activities for which you have sought general permits.

   a. Streambank and shoreline protection
   b. Embankment fill
   c. Culvert construction
   d. Bridge pier and abutment construction
   e. Temporary stream crossings.

3. Please relate the status of all applications for general permits.

   Not a single one has been publicized yet by the C.E. despite months of discussions and meetings ending last February. The New York C.E. office has informed us that we should not expect any general permits to be issued prior to September 1.

E. V. Hourigan
Signed

N.Y. State Department of Transportation
Member Department

June 17, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
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June 11, 1976

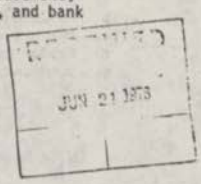
QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   The number will depend on the type general permit developed by the Corps of Engineers. Without a general permit covering routine operations, the number would be estimated at two hundred (200) a year. With a general permit, this number would be reduced to about 60 a year.

2. Please describe, briefly, any activities for which you have sought general permits.

   Bridge approach fills, temporary detour fills for bridge replacement, culvert, backfill, sand recovery excavation, channel changes, and bank rip rap.



3. Please relate the status of all applications for general permits.

   The Wilmington, N. C. District Office of the Corps of Engineers has delayed action on general permits pending action by Congress on the amendments to Section 404 which they hope will essentially eliminate Phase II and III of the Corps Program.

Eddy Cox
Signed

N.C. Department of Transportation
Member Department

18 June 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

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   The number will depend on the type general permit developed by the Corps of Engineers. Without a general permit covering routine operations, the number would be estimated at two hundred (200) a year. With a general permit, this number would be reduced to about 60 a year.

2. Please describe, briefly, any activities for which you have sought general permits.

   Bridge approach fills, temporary detour fills for bridge replacement, culvert, backfill, sand recovery excavation, channel changes, and bank rip rap.



3. Please relate the status of all applications for general permits.

   The Wilmington, N. C. District Office of the Corps of Engineers has delayed action on general permits pending action by Congress on the amendments to Section 404 which they hope will essentially eliminate Phase II and III of the Corps Program.

Signed

N.C. Department of Transportation
Member Department

18 June 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Approximately 15 projects to be let before July 1, 1977 will require permits. Of these, anything to be let after October 1, 1976 will require permits under Phase 3.

2. Please describe, briefly, any activities for which you have sought general permits.

   A. No statewide general permits applied for.
   B. Project general permits applied for cover:
      (1) Ordinary highway embankments including placement of culverts.
      (2) Riprap for bank and embankment protection where necessary.
      (3) Installation of bridge abutments and piers including piles.

3. Please relate the status of all applications for general permits.

   Under "B" above:
   A total of 12 projects have been applied for beginning December 5, 1975. As of this date, one permit was submitted to us for approval before final signatures. It has been returned to Omaha for completion. On 3 projects we have been advised that no permit is necessary until Phase 3 of the program becomes effective July 1, 1977. The other 8 are in various stages of consideration by the Corps. We find that instead of the programmed 90 days for issuance, a more realistic time period would be 180 days.

R E Bradley
Signed

North Dakota State Highway Department
Member Department

June 17, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   We now have 16 permit applications pending with the Corps of Engineers for Phase II waters. We anticipate approximately 15 to 20 more this year unless regulations are changed.

2. Please describe, briefly, any activities for which you have sought general permits.

   We have requested and the Corps of Engineers is now drafting Public Notices for four types of General Permits as follows:

   1. Embankment Fill Activities
   2. Stream Bank and Shoreline Protection Activities
   3. Culvert Construction Activities
   4. Temporary Stream Crossing Activities

3. Please relate the status of all applications for general permits.

   The basic provisions of the four general permits have been agreed upon by ODOT and the five Districts of the Corps of Engineers having jurisdiction in Ohio. Draft Public Notices are being prepared by the Huntington District and are to be submitted for review about July 8, 1976. The Environmental Assessments are being prepared for each general permit with no date established for completion.

Signed

ODOT
Member Department

6-24-76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

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341 National Press Building
Washington, D.C. 20045

June 11, 1976

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QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Approximately fifty-six (56) permits are required under Phase II.

2. Please describe, briefly, any activities for which you have sought general permits.

   On April 15, 1976, we filed with the Corps of Engineers Baltimore District a general permit application entitled, "Installation of Rock Riprap for Stabilization of Stream Banks or Highway Slopes".

3. Please relate the status of all applications for general permits.

   To date, we have not received the general permit for our application as referred to in item 2 above. We understand that the Corps is presently processing our application in association with several similar applications submitted by other agencies.

   The Corps has informed us that several general permit applications relate to highway and bridge projects are currently under consideration and that they will notify us as soon as it is concluded that these applications are acceptable. We plan to submit the similar applications to the Corps as soon as we receive the "go-ahead" notice from them. These applications will include bridge abutment and approaches, temporary stream crossings, culvert construction, and embankment fills.

David C. Sima
Signed Deputy Secretary,
Pennsylvania Department of Transportation
Member Department
June 25, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Bridge Projects -3

   Highway Projects - 4

2. Please describe, briefly, any activities for which you have sought general permits.

   On February 16, 1975, the R. I. Department of Transportation requested a general permit to cover the following activities:

   1. All highway projects that the Federal Highway Administration approves as being non-major actions under the existing rules.
   2. Activities requiring that the discharge of less than 1,000 c.y. of existing stream alterations where less than that amount is to be excavated or rearranged.
   3. Temporary stream diversions conducted in accordance with usually recognized good engineering standards.
   4. Backfills behind bridge abutments.
   5. Backfill for drainage outfalls.
   6. Bridge replacement projects essentially at the same site except those over navigable waters.

3. Please relate the status of all applications for general permits.

   On March 10, 1976, the Corps of Engineers acknowledgd receipt of our request and stated they would be in touch with us to arrange a meeting within two or three weeks. We haven't heard from them since.



Signed

R.I.D.O.T.

Member Department

June 21, 1976

Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Based on the estimated mileage proposed to be constructed under phase II, it is anticipated that approximately 225 permits will be required.

2. Please describe, briefly, any activities for which you have sought general permits. (1) New culvert and bridge construction on new location, including necessary approach fill. (2) Bridge and culvert replacement, including earthwork necessary to widening shoulders of approach fills. (3) Extensions of culverts and bridge widenings, including earthwork necessary to widen shoulders of approach fills. (4) Soil borings and foundation exploration. (5) Emergency repair of existing approach fills, shoulders or structures regardless of location. (6) The placement of rip rap at existing culverts and on existing bridge approach fills. (7) Ferry landings, including bulkheads, ramps, channel, dredging and fill for approach access roads. (8) Installation of fishing or pedestrian sidewalks on existing structures. (9) Recreational piers, fishing structures and boat ramps. (10) Shore and bank erosion protection. (11) Construction roads except in wetlands adjacent to navigable and/or tidal waters which shall require a special permit. (12) Removal of unstable foundation materials. (13) Minor mining consisting of the removal of earth materials by excavating below the existing ground line to obtain material for construction purposes. (14) Minor channel changes or stream diversions for road or bridge work. (15) All construction work within the ditch lanes of existing roadway facilities.

3. Please relate the status of all applications for general permits.

   The South Carolina State Highway Department has on two occasions addressed the U. S. Army Corps of Engineers on the possibility of issuing the South Carolina Highway Department a general permit to discharge dredged or fill material in conjunction with roadway and bridge construction. At this time, the Corps of Engineers is in the process of gathering related data and reviewing the progress made on and similar general permits. The Corps has tentatively scheduled a general permit proposal for highway construction projects for July 1976.

Paul W Cobb
Signed

Member Department

Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

Forty-three (43)

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2. Please describe, briefly, any activities for which you have sought general permits.

a) Fill material on the approaches to bridge crossings over streams.

b) Box culverts and box bridges under the roadway to pass drainage of minor streams.

c) Channel relocations.

3. Please relate the status of all applications for general permits.

Requests	Approval	Remainder
16	*4	**12

*Project approval based upon Corps of Engineer determination that completion date would be prior to implementation of Phase III.

**Of twelve (12) remaining projects, public notices have been set out on two (2) projects.

W. A. Goodwin
Signed
Tennessee Dept. of Transportation
Member Department
6-21-76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
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Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   We estimate that there would be about sixty (60) construction projects per year requiring permits under Phase II of the Corps regulations. Some of these projects will involve several stream crossing areas requiring discreet application data for each location.

2. Please describe, briefly, any activities for which you have sought general permits.

   We have not sought a general permit.

3. Please relate the status of all applications for general permits.

   No answer.

B. L. DeBerry
Signed
Texas Department of Highways and Public Transportation
Member Department

Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.
There are 8 projects which fall under Sec. 404 of the FWPCA.
See the attached sheet.

2. Please describe, briefly, any activities for which you have sought general permits.

These activities include all types of pipe crossings as well as bridge crossings. The Utah Department of Transportation has already applied for a State-wide general permit. It is in the process of applying for a general permit for all types of channel changes of streams on any highway project.

3. Please relate the status of all applications for general permits.

U.S. Army Corps of Engineers (Sacramento District) has already processed our application for a general permit for pipes and bridge crossings. A public notice will be circulated in the immediate future to receive comments and response from various agencies.

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JUN 28 1976

C V Anderson, Asst Dir.
Signed

UTAH
Member Department

6-23-76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

The following are current highway projects that are in Phase II of the Corps regulations which cover primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of five acres or more:

Project Number	Location
	Interstate
I-80-3(5)116	9th West to 5200 West
I-80-3(8)105	5200 West to Saltair
I-215-9(3)297	1800 South to 2500 North
I-70-4(2)163	Elgin to Floy (Green River Bridge)
	Primary
RF-028(2)17	Blue Cut to East Price
RF-028(2)17	West Price Connection
	Off-System
OS-03(06)	Bear River Bridge at Benson
OS-244(1)	Price River Bridge in North Helper

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

84 - This is an estimate based on the following:
(1) Status Report, applications to the Corps of Engineers and Coast Guard (attached)
(2) Town Highway Bridge Program
(3) State System Bridge Improvement Program
Since Phase II applicability determinations for projects in 2 and 3 have not been completed, this is an estimate.

2. Please describe, briefly, any activities for which you have sought general permits.

Minor Roadway Modification Projects.
(1) Culverts--Fills less than 25cy to ordinary high water.
(2) Small Bridges--Fills less than 500cy to ordinary high water and also with less than 400 feet of shoreline alteration.
(3) Shoulder Widening--Less than 3cy of fill per linear foot of existing roadway.

See Attachments: (1) General Permit Clarifications; (2) Jurisdictional Map; (3) Proposed General Permit

3. Please relate the status of all applications for general permits.

(1) The Corps of Engineers prepared Proposed General Permit #GP-76-002.
(2) On May 24, 1976, the Proposed General Permit was discussed with responsible state agencies.
(3) Pending approval, the Proposed General Permit is to be revised.
(4) Prior to issuance of the General Permit, there is to be an additional commenting period for the Revised Proposed General Permit.

Signed
ACTING COMMISSIONER OF HIGHWAYS
VERMONT
Member Department

June 22, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Phase I - 50 to 60 permits annually
   Phase II - 100 to 120 permits annually
   Phase III - 150+ permits annually

2. Please describe, briefly, any activities for which you have sought general permits.
   a. *Maintenance and reconstruction of existing facilities on an equal design basis*
   b. *Cofferdams*
   c. *Temporary causeways and bridges within waterways and floodplains*
   d. *Box and pipe culverts in secondary, tertiary, and higher order tributaries to navigable waters, and*
   e. *Relocation of utilities*

JUL 12 1976

3. Please relate the status of all applications for general permits.

   The Department has not filed any general permits at this time, but we are actively negotiating with the Corps of Engineers and their Environmental review Agencies general permits under the above catagories.

   The Department's current negotiation is centered with the Corps' Environmental Review Agencies on exceptions to these general permit catagories. To date, the following exclusions have been considered:

   a. *Tidal waters and adjacent marshes*
   b. *Historic sites and wildlife preserves*
   c. *Scenic rivers*
   d. *Natural trout waters, and*
   e. *Critical environmental areas.*

Signed
W. S. G. Britton, Deputy Commissioner and Chief Engineer, Virginia Department of Highways and Transportation
Member Department
July 8, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

   Ten (10) permits anticipated under Phase II for the period July 1, 1976 to June 30, 1977. To date, an equal number of Phase II permits have been submitted.

2. Please describe, briefly, any activities for which you have sought general permits.

   Our principal concern, the volume of permits required under Phase III. Because the effective date of Phase III is July 1, 1977, a general permit for streams beyond the principal tributaries has not been pursued. If the Wright Amendment fails, we will immediately seek a general permit for "all other waters", and will handle Phase II projects on an individual basis, as in Phase I.

3. Please relate the status of all applications for general permits.

   There are none in progress.

W. A. Dudley
Signed

Washington
Member Department

7-6-76
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
341 National Press Building
Washington, D.C. 20045

June 11, 1976

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SEC. 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

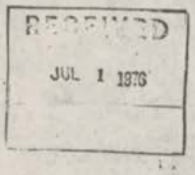
   Wisconsin has nine district division of highway offices through which permit applications are prepared. Based on an anticipated average of 5 permit applications per district, we would expect to apply for approximately 45 permits under phase II.

2. Please describe, briefly, any activities for which you have sought general permits.

   To date, we have not sought establishment of general permit activities. We have, however, been in the process of identifying particular project activities to present to the Corps of Engineers for consideration for general permits.

3. Please relate the status of all applications for general permits.

   As above.



H.L. Fiedler, State Highway Engineer
Signed

Wis. Dept. Transportation-Div. Highways
Member Department

June 28, 1976
Date

Please return one signed copy of this questionnaire to the AASHTO General Offices by June 25, 1976.

Senator RANDOLPH. Senator Buckley, you might present the witness from New York State now.

Senator BUCKLEY. I am delighted to present Charles H. Callison, of the National Audubon Society, who has followed legislation and environmental matters for years and years on behalf of the Society.

I believe his point of view tends to be rather balanced. I always welcome his views on the issues that come before us. Welcome, Mr. Callison.

STATEMENT OF CHARLES H. CALLISON, NATIONAL AUDUBON SOCIETY

Mr. CALLISON. Thank you, Mr. Chairman, and I thank you, Senator Buckley. It is always a privilege to appear before this committee that has been so stalwart and foresighted in advancing the clean water and clean air goals of the United States.

It has been my privilege to appear before this distinguished committee in the past when you have had under consideration the basic environment laws of this country.

Of course, Mr. Chairman, it gives me a warm feeling to be welcomed by my own Senator from the State of New York, whom I admire so much.

The National Audubon Society has been concerned about and involved in the protection of wetland resources since its very earliest history. We have, within our own sanctuary systems, some very substantial areas of wetlands, including, for example, 26,000 acres of coastal marsh in Louisiana, our great 10,000-acre Corkscrew Swamp Sanctuary in Florida, the 5,000-acre Rookery Bay Sanctuary in Florida, and 4,000 acres of the Four Hole Swamp, the Francis Beidler Forest, in South Carolina.

So we have long experience and concern with wetlands.

As a national organization, we strongly oppose any tampering with section 404. The regulations that have now been promulgated by the Corps of Engineers, after some judicial guidance and some fruitful consultations with the Environmental Protection Agency, are fair, reasonable, and practicable.

The Corps has already demonstrated that it can administer its responsibilities under section 404 with fairness and dispatch and with intelligent concern for the broader public interest.

The National Audubon Society was involved as an intervenor in a striking case in point, the application of the Deltona Corp. for three dredge and fill permits affecting 2,200 acres of high quality mangrove swamp and shallow bay bottom at Marco Island in southwest Florida.

The National Environmental Policy Act was complied with, public hearings were held, volumes of scientific evidence and socioeconomic testimony received, and the Corps through its Jacksonville district conducted its own thorough studies.

The decision of the Chief of Engineers, announced April 15, 1976, was, in our opinion, based on sound and balanced judgment. Two of the permits, which would have resulted in destruction of 2,039 acres of wetlands, were denied.

But Deltona was told it could proceed with development in the third area, the Collier Bay area, where the environment was already partially altered and where only 112 acres of wetland would be affected.

The National Audubon Society as an intervenor had recommended denial of all three permits. We were joined in this recommendation by cointervenors, the Environmental Defense Fund, Florida Audubon Society, and the Collier County Conservancy.

Deltona has appealed the denial of the two permits to the courts. But this is only the due process of law—no reason for Congress to be stampeded by developers demanding the law be changed.

The regulations have already made certain that no permits are required for normal farming activities, nor for normal and necessary maintenance of existing structures in wetland areas. There are agitators, however, who are working hard to keep the farmers from feeling reassured—but the motives of such agitators are not agricultural.

They are people who want to drain, dig up, and fill the wetlands for other reasons.

The members of this committee are knowledgeable about the economic and ecological values of wetlands. Further evidence of these values will be presented by my colleagues on this environmental panel.

But the National Audubon Society also wants again to go on the record with reasons why wetlands must be protected and why section 404 is good law.

My prepared statement contains additional reasons, or a repetition of reasons, which you probably heard before, why the wetlands of this Nation, the estuaries, the salt marshes that join, and the freshwater wetlands need to be protected.

The records of hearings of this kind are very instructive, of course, for many scholars who will study them, so we are pleased to have the opportunity to put this material in the record.

The point is, wetlands are not wastelands to be destroyed thoughtlessly or for shortsighted private gain. They are the most productive of all land forms in terms of life and must be safeguarded for the public good.

The purpose of section 404 and other sections of the Water Act of 1972 is to prevent their destruction through the deposition of dredged or fill material or other pollutants unless it can be demonstrated that a greater public good would be served by such deposition.

Some say that the Corps of Engineers has been sidling into ecological wisdom somewhat reluctantly and with a nostalgic eye to the simplistic past when dams, dikes, dredges, and draglines seemed to be everything.

But the corps is a great organization with great technical competence and a capacity to learn. It is demonstrating that it can make section 404 work. We urge this committee and Congress to reject all amendments to section 404 and give the Corps a chance to make it work for the public welfare and in the national interest.

Mr. Chairman, I would like to submit for the record an analysis of the Wright-Breaux amendment—the amendment to section 404 that was passed in the House of Representatives—that was prepared by the West Contracoastal Conservation League of Richmond, Calif.

I think it is a thorough study and accurate analysis of what that amendment does. I believe it will be useful to the committee.

Senator GRAVEL [presiding]. It will appear in the record to follow your statement. (See p. 218.)

Senator GRAVEL. Do you have any questions, Senator Bentsen?

Senator BENTSEN. No.

Senator GRAVEL. Senator Buckley?

Senator BUCKLEY. Yes, if I may.

Mr. Callison, do you have similar analysis of the Cleveland-Harsha amendment?

Mr. CALLISON. Yes, Senator Buckley. This analysis which I am submitting for the record also includes an analysis of the Cleveland-Harsha amendment. It shows, section by section, which language would be changed.

It is our opinion, based on this and our own analysis, that while the Cleveland-Harsha amendment, which I think is the amendment that Senator Hart is proposing in the Senate, would do the least damage. But we think that is unnecessary, also.

Senator BUCKLEY. Thank you. I shall read your full statement with great care, but I must confess that I am disturbed by some reports of the perhaps unnecessary resort to unreasonableness where one could go to the options.

Mr. CALLISON. I think a great deal of the apprehension is based on an excited and unjustifiable notion that the Corps of Engineers is going to be utterly unreasonable in their judgment on these permits.

That is a strange position, I think, for the Public Works Committee to take, that the Corps of Engineers is going to be unreasonable about anything. I hope you will think about it seriously. We don't think they will be unreasonable.

Senator BAKER. Mr. Chairman, if I could interrupt for a minute. I served on this committee for 10 years and I sat here thinking what a remarkable change of events this is. The Audubon Society is praising the Corps of Engineers as a great environmental unit and the Public Works Committee is being cautioned.

Mr. CALLISON. Yes; that, Senator Baker, is a course of evolution that is astonishing to us also. We find ourselves surprised.

Senator BAKER. It keeps us from growing older as we watch the developments.

Senator GRAVEL. Senator Burdick.

Senator BURDICK. No questions.

Senator GRAVEL. Senator Baker?

Senator BAKER. No.

Senator GRAVEL. Senator Domenici?

Senator DOMENICI. I will hold mine; thank you.

[Mr. Callison's statement and the Wright-Beaux amendment analysis follow:]

STATEMENT OF CHARLES H. CALLISON, EXECUTIVE VICE PRESIDENT, NATIONAL AUDUBON SOCIETY

The National Audubon Society, one of the oldest and largest conservation organizations in the United States, has been working to protect the wetlands of America since its earliest history. One of the Society's first missions was to preserve the egrets, terns, spoonbills and other wading birds and seabirds that late in the 19th century and early in this century were being wiped out by the feather trade. These birds are denizens of the coastal shallows, the estuaries, the salt marshes and inland wetlands, all of which in their natural functioning, are the most productive kinds of land, the most productive ecosystems on earth. Acre for acre they produce more protein than a Kansas wheatfield or an Iowa cornfield.

The fisheries of the seas to which mankind increasingly turns for protein are utterly dependent on the wetland ecosystems which Section 404 and other vital provisions of the Water Pollution Control Act were written to help protect. And as ecosystems, they are inseparable. You cannot say they are valuable as life

support systems only up to the line of salt-waters vegetation, or only to the line of mean high tide.

The preservation of America's vital and eco-essential estuarine, riverine and wetland resources has been formally adopted by our Board of Directors as a major environmental goal of the National Audubon Society. Substantial areas of wetlands are preserved in the Society's own sanctuary system, including 26,000 acres of coastal marsh in Louisiana, our great 10,000-acre Corkscrew Swamp Sanctuary in Florida, the 5,000-acre Rookery Bay Sanctuary in Florida, and 4,000 acres of the Four Hole Swamp (The Francis Beidler Forest) in South Carolina.

The Society today has more than 350,000 members, more than half of whom are joint members in 371 chapters—local Audubon societies active throughout the United States. We are, in fact, represented by, and strive to represent, Audubon chapters and other affiliated organizations in all the states.

It is a privilege and honor for me to appear before this distinguished committee which has been exceptionally stalwart and foresighted in advancing the Clean-Water and Clean-air goals of the United States. It has been my privilege to appear at many of your previous hearings on basic environmental legislation. And I would like to suggest that you don't need second-guessing by any other Committee or even by the House of Representatives.

The National Audubon Society strongly opposes any tampering with Section 404. The Regulations that have now been promulgated by the Corps of Engineers, after some judicial guidance and some fruitful consultations with the Environmental Protection Agency, are fair, reasonable and practicable. The Corps has already demonstrated that it can administer its responsibilities under Section 404 with fairness and dispatch and with intelligent concern for the broader public interest.

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The National Audubon Society as an intervenor had recommended denial of all three permits. We were joined in this recommendation by co-intervenors, the Environmental Defense Fund, Florida Audubon Society, and the Collier County Conservancy.

Deltona has appealed the denial of the two permits to the Courts. But this is only the due process of law—no reason for Congress to be stampeded by developers demanding the law be changed.

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The members of this committee are knowledgable about the economic and ecological values of wetlands. Further evidence of these values will be presented by my colleagues on this environmental panel. But the National Audubon Society also wants again to go on the record with reasons why wetlands must be protected and why Section 404 is a good law.

Not only the estuaries—the reaches where rivers meet the sea and fresh water mingles with salt water—but also the fresh water wetlands behind the salt and brackish marshes are vital to the production of fish, shellfish and other aquatic life. Likewise the tributary streams and their associated wetlands—the Natural lakes, sloughs, marshes and swamps whose waters are fed by and feed into the big rivers are as vital to the aquatic life of the big rivers as the estuarine wetlands are vital to the productivity of the sea.

You cannot drain, fill-in, pollute or lop off the wetlands without damaging and ultimately destroying the life support systems of the bodies of water traditionally considered navigable in the commercial, or transportation sense. The reason for Section 404 is not navigation. The reason is *life, natural life* upon which mankind depends.

I'm sure it has been pointed out to you already that marshes are more efficient than any man-made sewage plant for removing excess phosphates, nitrates and other pollutants from water flushing through them; for removing such pollutants and converting them to plant and animal life, or otherwise rendering them harmless. But this point is so important it can stand some repetition. Freshwater as well as saline and brackish marshes are nature's cleansing components in aquatic ecosystems. But like many other misunderstood gifts of nature, man has gone about destroying this gift by drainage, filling, and by pouring in an over-load of pollutants beyond the natural capacity of the wetlands to assimilate and convert them. Thus man has progressively lessened his own chances for prosperous survival on earth.

The freshwater wetlands that Section 404 protects, along with the coastal wetlands, are essential habitat for hundreds of species of wild birds and mammals. Diving ducks like the greater and lesser scaup, the canvasback and the redhead, are thought of chiefly in association with the deeper waters of coastal bays and estuaries, where they spend the winters. But these species, as well as the mallard, pintail, and other dabblers, are also dependent on freshwater marshes for places to nest and rear their young. The canvasback and redhead, famous in the sport of wildfowling have become increasingly rare and threatened because of the progressive destruction of freshwater wetlands.

A host of other migratory birds that lend life, beauty and ecological balance to the American landscape depend on the swamps, ponds, marshes, the little and big rivers and the estuaries as an ecological continuum. Among them are the marsh wrens, phoebes and other small flycatchers, some warblers, the egrets and other herons, sandpipers and plovers of several species, and many others. The point is, wetlands are not wastelands to be destroyed thoughtlessly or for short-sighted private gain. They are the most productive of all land forms in terms of life must be safeguarded for the public good. The purpose of Section 404 and other sections of the Water Act of 1972 is to prevent their destruction through the deposition of dredged or fill material or other pollutants unless it can be demonstrated that a greater public good would be served by such deposition.

Some say that the Corps of Engineers has been sidling into ecological wisdom somewhat reluctantly and with a nostaligic eye to the simplistic past when dams, dikes, dredges and draglines seemed to be everything. But the Corps is a great organization with great technical competence and a capacity to learn. It is demonstrating that it can make Section 404 work. We urge this Committee and the Congress to reject all amendments to Section 404 and give the Corps a chance to make it work for the public welfare and in the National interest.

Prepared by: West Contra Costa Conservation League
1015 Leneve Place
Richmond, California 94530

A Wetlands Catastrophe —
The Wright-Breaux Amendment

Abstract

On June 3, 1976 the U.S. House of Representatives adopted the Wright-Breaux amendment to the 1976 'Clean Water' funding bill, H.R. 9560.

If it becomes law, this amendment will leave most of the Nation's remaining wetlands unprotected under Section 404 of FWPCA, and seriously reduce protection of the Nation's waters under the 1899 Rivers & Harbors Act.

Corps of Engineers regulations, Section 404 of FWPCA, and House amendments to it are reprinted and reviewed in this report.

The matter is now before the U.S. Senate. The Wright-Breaux amendment has been added to S. 2710, and H.R. 9560 has been tabled.

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(6/76)

Introduction

In a little publicized action, the House of Representatives on June 3, 1976 voted to amend the Federal Water Pollution Control Act of 1972 (FWPCA) in various ways. To many conservationists, hunters and fishermen, the most serious amendment -- the Wright amendment -- is one which drastically reduces the area of jurisdiction of the Corps of Engineers and other federal agencies under Section 404 of FWPCA and the 1899 Rivers and Harbors Act over the nation's streams, lakes, marshlands and estuaries.

It is the purpose of this report to bring key documents bearing on the matter together, and to provide an analysis of problems seen in them.

The impact of passage of the Wright amendment on federal regulation in the nation's wetlands is not yet known. However, one agency's estimate states that if the similar and previously introduced "Breaux amendment" were to become law, only 10 million of the 70 million acres remaining in the contiguous 48 States would still be protected. The 60 million acres difference would be left with no significant federal protection.

Of the original 127 million acres of wetlands in the nation, 57 million acres (45 percent) had been destroyed as wildlife habitat through reclamation by 1950 according to agency figures, and between 1955 and 1975 another 6 million acres were lost. The latter figures average to loss of 300,000 acres of wetlands per year.

The Breaux amendment (introduced by Rep. John B. Breaux (D-La.)) would re-define 'navigable waters' under a highly restrictive and archaic formula. It would thereby prevent application of environmental controls under Section 404 of FWPCA and the Fish & Wildlife Coordination Act to the wetland acres thus removed from jurisdiction. The Breaux amendment was adopted by the House Public Works and Transportation Committee at a little known meeting held on April 13, 1976 by a 22-to-13 vote.

But even more, the Breaux amendment would prohibit the Corps of Engineers from exercising authority under the familiar 1899 Rivers and Harbors Act beyond the same narrow definition of 'navigable waters'. This amounts to a revolution in the method of administration of the 1899 Act, and in many ways sets back the jurisdiction of the United States in waterways by over a century.

Public rights in waterways are guaranteed by many state and federal statutes and the Constitution, and have been the subject of judicial rulings in the highest courts of both the United States and England. The Breaux amendment curiously tries to replace several hundred years of rulings and precedent by a statement merely 76 words long.

Since the Wright amendment includes the same definition of 'navigable waters' given in the Breaux amendment, the former suffers from the same debility as the latter.

On June 3, 1976 the matter of FWPCA amendments was taken up on the House floor. According to testimony printed in the Congressional Record (Vol. 122, No. 84, pp. H5229-H5288), Breaux withdrew his amendment for the reason that-- "the main thing that was lacking was votes", and endorsed the amendment introduced by Rep. James C. Wright, Jr. (D-Texas). The Wright amendment was introduced hastily (some Congressmen didn't even get a copy), but after a short heated debate was passed on a 234-to-121 vote.

The Wright amendment includes all the language of the Breaux amendment, but adds other features as well. Wetlands that are "adjacent" to navigable waters (as defined by Breaux) would be included in the Section 404 jurisdiction. In addition, "normal" farming, ranching and silviculture operations would not require permits, nor would most maintenance work on dams, dikes, etc. Furthermore, Federal projects or Federally assisted projects approved by Congress would not require permits if an environmental impact statement or assessment has been "submitted to Congress". However, on this point nothing is stated about the adequacy of the EIS, or its review and approval by state and federal agencies or the public. The Wright amendment would also allow the Corps to delegate its authority over "adjacent wetlands" to a state, and to sign revokable agreements with State Governors on other wetlands that both agree are important to protect.

A third major amendment to Section 404, the "Cleveland-Harsha amendment", was also discussed on June 3, but never voted upon. It had the support of the Administration, some conservation groups and many Congressmen. It would not redefine navigable waters, but would exempt normal farming, maintenance work, etc., and provide for "general permits" to be issued to cover possibly thousands of small projects having "minimal" cumulative environmental impact. The general permit concept had already been introduced by the Corps, and some draft public notices are now being prepared.

Heated controversy over what is fact and what is nonsense has obscured the real Section 404 issues considerably. For example, as recently as May 13 and persistently prior to that date, Congressman Wright has claimed that every "farmer wanting to deepen an irrigation ditch or plow a

field" would have to apply for a Corps permit, even though his claim had been denied repeatedly by high officials since nearly a year ago on July 15, 1975.

Another example: Rep. Harold T. Johnson (D-Calif.) at the June 3 hearing stated that "California is in support of the Wright amendment", yet the State Administration in April stated "we strongly oppose this (Breaux) amendment."

It has also been claimed that full implementation of the 404 program will result in a fourfold increase in the annual number of Corps permit applications, yet citing recent Corps estimates, Asst. Secretary of the Army Victor Veysey stated in a June 3 letter: "Frankly, I just don't believe we are going to see that kind of an effect", adding "my own belief is that the General Permit concept will reduce the number of permits processed substantially." Indeed, in California it is expected that one general permit for small forestry industry road stream crossings and culverts will cover an estimated 15,000 such operations performed annually.

Corps and EPA regulations dealing with requirements under Section 404 were published in "interim final" form on July 25, 1975 (40 Federal Register, pp. 31320-31344). In arriving at the regulations, the Corps held four major nationwide public hearings as well as dozens of local hearings on the program. According to the Corps, by last July "over 4,500 comments were received" in response to earlier proposed regulations for the program. Court reporters were employed to provide transcriptions of the larger hearings, so that an extensive record is available for gauging the public interest in the program. Unfortunately, there is no indication that Congress examined this huge record before taking action on April 13 and June 3, 1976.

This failing brings us face to face with the key deficiency in the recent deliberations on the 404 issue. The Breaux amendment was adopted by the House Public Works and Transportation Committee without testimony by the EPA, the Dept. of Interior, the Corps of Engineers, or citizen groups of various persuasions. Furthermore, the matter was referred neither to the Conservation, Energy and Natural Resources Subcommittee (Wm. S. Moorhead, Chmn.), nor to the Fisheries & Wildlife Conservation and the Environment Subcommittee (Robt. L. Leggett, Chmn.). Both Subcommittees and their staffs have long experience in the matter of Corps regulation of activities in the nation's priceless wetlands heritage.

-5-

Excerpts from existing Corps Regulations.

(d) Definitions. For the purpose of issuing or denying authorizations under this regulation.

(1) *"Navigable waters of the United States."* The term, "navigable waters of the United States," is administratively defined to mean waters that have been used in the past, are now used, or are susceptible to use as a means to transport interstate commerce landward to their ordinary high water mark and up to the head of navigation as determined by the Chief of Engineers, and also waters that are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the Pacific Coast). See 33 CFR 209.260 (ER 1165-2-302) for a more definitive explanation of this term.

(2) *"Navigable waters".* (i) The term, "navigable waters," as used herein for purposes of Section 404 of the Federal Water Pollution Control Act, is administratively defined to mean waters of the United States including the territorial seas with respect to the disposal of fill material and excluding the territorial seas with respect to the disposal of dredged material and shall include the following waters:

(a) Coastal waters that are navigable waters of the United States subject to the ebb and flow of the tide, shoreward to their mean high water mark (mean higher high water mark on the Pacific coast);

(b) All coastal wetlands, mudflats, swamps, and similar areas that are contiguous or adjacent to other navigable waters. "Coastal wetlands" includes marshes and shallows and means those areas periodically inundated by saline or brackish waters and that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction;

(c) Rivers, lakes, streams, and artificial water bodies that are navigable waters of the United States up to their headwaters and landward to their ordinary high water mark;

(d) All artificially created channels and canals used for recreational or other navigational purposes that are connected to other navigable waters, landward to their ordinary high water mark;

(e) All tributaries of navigable waters of the United States up to their headwaters and landward to their ordinary high water mark;

(f) Interstate waters landward to their ordinary high water mark and up to their headwaters;

(g) Intrastate lakes, rivers and streams landward to their ordinary high water mark and up to their headwaters that are utilized:

(1) By interstate travelers for water-related recreational purposes;

(2) For the removal of fish that are sold in interstate commerce;

(3) For industrial purposes by industries in interstate commerce; or

(4) In the production of agricultural commodities sold or transported in interstate commerce;

(h) Freshwater wetlands including marshes, shallows, swamps and, similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation. "Freshwater wetlands" means those areas that are periodically inundated and that are normally characterized by the prevalence of vegetation that requires saturated soil

Differences between existing Corps regulations and the language of the Wright-Breaux amendment passed by House of Representatives on 6/3/76.

"Navigable waters of the United States" are those that the Corps has traditionally managed under the 1899 Rivers and Harbors Act. They are defined in agreement with judicial rulings and precedent based on English Common Law through colonial charters of the original thirteen States. Some public rights in waters date back to the Magna Carta of 1215.

The Wright-Breaux amendment deletes all historically navigable waters and replaces all judicial history with a 76-word definition.

Historically navigable waters not included in in the Wright-Breaux amendment.

Coastal wetlands adjacent or contiguous to historically navigable waters are not included in the Wright-Breaux amendment.

The Wright-Breaux amendment does not include "up to their headwaters" and does not include historically navigable rivers, lakes, streams or artificial water bodies.

Not included in the Wright-Breaux amendment unless these channels, canals, lakes, rivers and streams can be used as a means to transport interstate or foreign commerce.

Not included in the Wright-Breaux amendment unless these freshwater wetlands are adjacent or contiguous to waters that can be used as a means to trahsport interstate or foreign commerce.

Excerpts from existing Corps Regulations.

conditions for growth and reproduction; and

(4) Those other waters which the District Engineer determines necessitate regulation for the protection of water quality as expressed in the guidelines (40 CFR 230). For example, in the case of intermittent rivers, streams, tributaries, and perched wetlands that are not contiguous or adjacent to navigable waters identified in paragraphs (a)-(h), a decision on jurisdiction shall be made by the District Engineer.

(ii) The following additional terms are defined as follows:

(a) *"Ordinary high water mark"* with respect to inland fresh water means the line on the shore established by analysis of all daily high waters. It is established as that point on the shore that is inundated 25% of the time and is derived by a flow-duration curve for the particular water body that is based on available water stage data. It may also be estimated by erosion or easily recognized characteristics such as shelving, change in the character of the soil, destruction of terrestrial vegetation or its inability to grow, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area;

(b) *"Mean high water mark"* with respect to ocean and coastal waters means the line on the shore established by the average of all high tides (all higher high tides on the Pacific Coast). It is established by survey based on available tidal data (preferably averaged over a period of 18.6 years because of the variations in tide). In the absence of such data, less precise methods to determine the mean high water mark may be used, such as physical markings or comparison of the area in question with an area having similar physical characteristics for which tidal data are already available;

(c) *"Lakes"* means natural bodies of water greater than five acres in surface area and all bodies of standing water created by the impounding of navigable waters identified in paragraphs (a)-(h), above. Stock watering ponds and settling basins that are not created by such impoundments are not included;

(d) *"Headwaters"* means the point on the stream above which the flow is normally less than 5 cubic feet per second; *provided, however*, the volume of flow, point and nonpoint source discharge characteristics of the watershed, and other factors that may impact on the water quality of waters of the United States will be considered in determining this upstream limit; and

(e) *"Primary tributaries"* means the main stems of tributaries directly connecting to navigable waters of the United States up to their headwaters and does not include any additional tributaries extending off of the main stems of these tributaries.

(3) *"Ocean waters"*. The term "ocean waters," as defined in the Marine Protection, Research, and Sanctuaries Act of 1972 (P.L. 92-532, 86 Stat. 1052), means those waters of the open seas lying seaward of the base line from which the territorial sea is measured, as provided

...

Comments

The Wright-Breaux amendment gives no discretion to the District Engineer for additional jurisdiction that might be needed to protect water quality in the Nation's waters.

Although the Wright-Breaux amendment utilizes the terms: "ordinary high water mark", "mean high water mark", and "mean higher high water mark", these terms are not defined in the amendment.

In preparing the Regulations, the Corps has recommended readily measureable size limits for lakes and streams by balancing the two conflicting notions: (1) if lake size and stream flow limits are too small, a far too expensive and over-regulatory system would result, and (2) if the lake and stream limits are too large, then downstream water quality and wildlife habitat values could be seriously affected.

By limiting Corps jurisdiction only to waters that can be used as a means to transport interstate and foreign commerce, the Wright-Breaux amendment degrades the national water quality and wildlife goals and policies given in Section 101 of FWPCA.

Breaux Amendment
Cong. Rec. 6/3/76, p. H 5266

The Clerk read as follows:

PERMITS FOR DREDGED OR FILL MATERIAL

SEC. 17. Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended by adding at the end thereof the following new subsections:

"(d) The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce, shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast).

"(e) The discharge of dredged or fill material in waters other than navigable waters is not prohibited by or otherwise subject to regulation under this Act, or section 9, section 10, or section 13 of the Act of March 3, 1899.".

Cleveland-Harsha Amendment
Cong. Rec. 6/3/76, p. H 5266

Amendment offered by Mr. CLEVELAND: On page 31 of the bill, strike out all of Section 33 after the colon on line 13 and substitute in lieu thereof the following:

"(d) No permit shall be required under this section, or section 402 of this Act, for discharges of dredged or fill material,

(1) resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for the production of food, fiber, and forest products;

(2) placed for the purpose of maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures; or

(3) placed for the purpose of construction or maintenance of farm and stockponds and irrigation ditches and the maintenance of drainage ditches.

"(e)(1) Consistent with the requirement of subsections (a)-(c) of this section the Secretary of the Army acting through the Chief of Engineers may issue general permits for discharges of dredged or fill material where such activities are similar in nature, cause only minimal adverse environmental impact when performed separately, and will have only a minimal adverse cumulative effect on the environment. Such permits shall contain such conditions as necessary to achieve the purposes of this Act and shall be for a maximum period of five years. A general permit may be revoked or modified if it is determined that the cumulative effects of the permitted activities are such that individual permit treatment is required: *Provided*, That no general permit shall be revoked or substantially modified without opportunity for public hearings.

"(e)(2) The Secretary shall distribute through normal public notice procedures, notice of all categories of activities proposed for processing by means of general permits.

"(f) The Secretary shall submit a detailed report to the Congress, on or before December 31, 1977, on the implementation to such date by the Department of the Army of the provisions of this section. This report, which shall be prepared in conjunction with the Administrator of the Environmental Protection Agency, shall detail the progress made in implementing the requirements of this section and the objectives of this act.

Comments

This definition of "navigable waters" largely parallels a broader definition of "navigable waters of the United States" given by the Corps in 33 CFR 209.120(d)(1) (see 40 F.R. 31324, July 25, 1976), but omits "waters that have been used in the past" for navigation, and also omits noting that such waters are to be taken "up to the head of navigation". The Corps' definition (supra) refers to a more detailed statement given in 33 CFR 209.260, which is based upon a thorough review of judicial rulings having roots in English common law, Magna Carta, etc.

The Breaux amendment defines navigable waters about as restrictively as given over a century ago in the case: The Daniel Ball (1871).

It should be noted that "the Act of March 3, 1899" is in fact the 1899 Rivers and Harbors Act. This Subsection of the Breaux amendment turns back the scope of Corps jurisdiction under the 1899 Act to The Daniel Ball, or even further. Jurisdiction under Section 404 of FWPCA would be equally narrow.

Elimination of the activities noted in Subsection (d) from requirements to obtain NPDES permits under Section 402 of FWPCA may prove to be an unwise exemption that could open the door to industrial or other substantial exemptions.

What is "normal farming" to the small farmer usually does not involve the same kind or scope of operations used by large corporate farming firms. Administrative discretion may be needed to take such differences into account.

At times, what can be cited as "maintenance work, is in fact major new work. At present, the Corps routinely makes rulings on whether or not a proposed operation is merely "maintenance" or is "new work". If maintenance is to be exempted by statute, then administrative discretion is needed to prevent abuses.

Wright amendment
(also called Wright-Breaux)
Cong. Rec. 6/3/76, p. H 5267

-8-

Amendment offered by Mr. WRIGHT as a substitute for the amendment offered by Mr. CLEVELAND:

Page 31, strike out lines 11 to 23, inclusive, and insert in lieu thereof the following:

Sec. 17. (a) Subsection (a) of section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended by adding immediately after "navigable waters" the following: "and adjacent wetlands".

(b) Such section 404 is further amended by adding at the end thereof the following new subsections:

"(d)(1) The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast).

"(2) The term 'adjacent wetlands' as used in this section shall mean (A) those coastal wetlands, mudflats, swamps, marshes, shallows, and those areas periodically inundated by saline or brackish waters that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction, which are contiguous or adjacent to navigable water subject to the ebb and flow of the tide, and (B) those freshwater wetlands including marshes, shallows, swamps, and similar areas that are contiguous or adjacent to other navigable waters, that support freshwater vegetation and that are periodically inundated and are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction.

"(e) Except as provided in subsection (f) of this section, the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands is not prohibited by or otherwise subject to regulation under this Act, or section 9, section 10, or section 13 of the Act of March 3, 1899.

"(f) If the Secretary of the Army, acting through the Chief of Engineers, and the Governor of a State enter into a joint agreement that the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands of such State should be regulated because of the ecological and environmental importance of such waters, the Secretary, acting through the Chief of Engineers, may regulate such discharge pursuant to the provisions of this section. Any joint agreement entered into pursuant to this subsection may be revoked, in whole or in part, by the Governor of the State who entered into such joint agreement or by the Secretary of the Army, acting through the Chief of Engineers.

"(g) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized to issue those general permits which he determines to be in the public interest.

"(h) The discharge of dredged or fill material—

"(1) from normal farming, silviculture, and ranching activities, including, but not limited to, plowing, terracing, cultivating, seeding, and harvesting for the production of food, fiber, and forest products;

"(2) for the purpose of maintenance of currently serviceable structures, including, but not limited to, dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments and approaches, and other transportation structures (including emergency reconstruction); or

"(3) for the purpose of construction or maintenance of farm or stock ponds and irrigation ditches,

is not prohibited by or otherwise subject to regulation under this Act.

Comments

Adds "adjacent wetlands" to "navigable waters" to give the total area of Corps jurisdiction under Sec. 404 of FWPCA.

Note that the Wright-Breaux amendment does not include lakes less than 5 acres, streams and tributaries "up to their headwaters", and both coastal and freshwater wetlands unless they are navigable in the restricted Wright-Breaux sense, or are "adjacent" to such navigable waters. (see also pp. 5-6)

This definition of "navigable waters" is the same as that given in the Breaux amendment, and suffers from the same problems. See Introduction and comments on p. 7.

This definition of "adjacent wetlands" has been compiled from language in existing Corps regulations (see p. 5), but does not cover such a wide area because the definition of "navigable waters" is considerably different.

This prohibition against exercise of jurisdiction by the Corps under both Sec. 404 and the 1899 Rivers and Harbors Act is the same as that given in the Breaux amendment (see p. 7).

No goals or standards are given to guide the form of these possible agreements between the Corps and the States. As a result, each agreement with different states would probably be considerably different as a result. The Corps could not thus provide a consistent policy across the nation, and the Corps would have different standards to follow in treating permit applications for work within a given state.

This "general permit" language is not sufficiently specific to prevent abuses or inconsistent actions across the nation. The language for general permits given in the Cleveland-Harsha amendment is much more satisfactory in this respect (see p. 7).

This language is nearly, but not exactly, the same as for the "normal farming" and maintenance exemption given in the Cleveland-Harsha amendment. As noted on page 7 for the latter, administrative discretion by the District Engineer is needed for the purpose of determining what is cited as maintenance or "normal" is not "new work".

Wright amendment (cont.) -9- Comments

"(i) The discharge of dredge or fill material as part of the construction, alteration, or repair of a Federal or federally assisted project authorized by Congress is not prohibited by or otherwise subject to regulation under this Act if the effects of such discharge have been included in an environmental impact statement or environmental assessment for such project pursuant to the provisions of the National Environmental Policy Act of 1969 and such environmental impact statement or environmental assessment has been submitted to Congress in connection with the authorization or funding of such project.

This new proposal would allow "Federal or federally assisted" projects to proceed without the coordinated review now employed in the Corps permit process. It does not give standards as to what constitutes a "federally assisted" project, nor does it speak to the adequacy of the EIS, which merely must be filed with Congress. Local standards for review and the public hearing option are lost as well. Such a system is open to substantial abuse.

"(j) The Secretary of the Army, acting through the Chief of Engineers, is authorized to delegate to a State upon its request all or any part of those functions vested in him by this section relating to the adjacent wetlands in that State if he determines (A) that such State has the authority, responsibility, and capability to carry out such functions, and (B) that such delegation is in the public interest. Any such delegation shall be subject to such terms and conditions as the Secretary deems necessary, including, but not limited to, suspension and revocation for cause of such a delegation."

This delegation of "adjacent wetlands" jurisdiction to the states gives no standards of performance, nor does it recognize the need for coordination across state boundaries as needed in migratory waterfowl habitat planning functions, for example, and now provided by the U.S. Fish & Wildlife Service. It would lead to a variety of standards of performance in the various states.

Text of Section 404 of the Federal Water Pollution Control Act, and the existing definition of its area of jurisdiction given in Section 502 (7).

Note: The Breaux, Wright, and Cleveland-Harsha amendments all add additional subsections to the language shown below. The Wright amendment also amends subsection (a) slightly.

"PERMITS FOR DREDGED OR FILL MATERIAL

"SEC. 404. (a) The Secretary of the Army, acting through the Chief of Engineers, may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites. Notice, hearing opportunity.

"(b) Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary of the Army (1) through the application of guidelines developed by the Administrator, in conjunction with the Secretary of the Army, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section 403(c), and (2) in any case where such guidelines under clause (1) alone would prohibit the specification of a site, through the application additionally of the economic impact of the site on navigation and anchorage.

"(c) The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary of the Army. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection. Disposal site, specification prohibition. Findings of Administrator, publication.

"GENERAL DEFINITIONS

"SEC. 502. Except as otherwise specifically provided, when used in this Act:

"(7) The term 'navigable waters' means the waters of the United States, including the territorial seas.

Senator GRAVEL. Our next witness will be Mr. William McCredie, National Forest Products Association.

STATEMENT OF WILLIAM H. McCREDIE, NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. McCREDIE. Thank you, Mr. Chairman, and members of the committee. My name is William McCredie. I am a professional forester for the National Forest Products Association in Washington, D.C. We have a written statement we wish to submit for the record which reflects the views of timber growers throughout the United States and discusses more fully our concerns with the section 404 program.

To summarize this statement, we would like to discuss with you the massive coverage of the section 404 program so that you can see why we think Congress should adopt corrective legislation.

Our two major concerns are the geographical coverage and the number of activities of minor environmental significance covered by the section 404 program. Across the way is a NASA photo of the State of Georgia. If you look at this photo closely, you can see the dense network of large and small streams interlacing nearly the entire area. Under the current section 404 regulations, all streams on this photo with a normal flow of 5 cubic feet per second or more are subject to the corps' jurisdiction. We also, as part of our statement, have maps put together by the Savannah District of the Corps of Engineers, known as exhibits VI and VII, which show the corps' own determination of the streams and wetlands which would fall under their jurisdiction. They claim that the district would now regulate over 14,000 miles of streams and over 2 million acres of wetlands.

We have also a map of two counties in the State of Oregon which show a shocking expansion of the corps' regulatory coverage as would occur in many other forest regions in the United States. On this map phase 1 waters are shown in blue, the traditional navigable waters. Phase 2 waters are shown in yellow, which are very difficult to see. Phase 3 is the red. We have other examples in our written statement.

The corps estimates its new jurisdiction in the United States for rivers has expanded from 50,000 miles to over 3.5 million miles and for lakeshore line from 50,000 miles to 4.7 million miles. This concerns us very greatly because adjacent to these waters lie millions of acres of forestlands which are poorly drained or have a high water table and hence could come under the definition of wetlands as defined by the Corps of Engineers.

In the region that runs generally from Virginia to Texas, there are over 33 million acres of productive forestlands located on so-called wetlands.

The inclusion of wetlands and the impossible task of identifying this whole definition of navigable waters on the ground will cause much more controversy, confusion and uncertainty to millions of people subject to the section 404 regulations.

In our statement are photos of specific forestry activities that would be subject to regulation under the section 404 program. In the areas of waters and wetlands just described, virtually all roads constructed by anyone would require section 404 permits, where they crossed a

stream or where they were in wetlands as defined in the regulations. This is because they are constructed by the placement of earth which the Corps regards as a discharge of filled material.

In the south, forest roads and areas with high water tables are sometimes built by digging two parallel ditches and placing the excavated material between the ditches to provide a raised roadbed. That photo is being passed around to you.

For the same reason, construction of water control ditches also requires a permit. This picture shows the kind of ditch used in many regions for control of excess rain and flood waters which improve conditions for reforestation and forest growth.

Whenever a forest road crosses a stream, bridges or culverts are installed to provide for normal flow of the water. These structures involve the placement of earth or rock in a portion of the stream channel. This picture shows a stream crossing consisting of a culvert and a small bridge. If the stream has a normal flow of 5 cubic feet or more, the culvert or bridge requires a permit.

We believe that there are many other forestry activities that are also subject to permits. We are not fully covered under the exemption, now laid out in the Corps' regulations, which supposedly exempts all normal forestry activities.

Hundreds of thousands of permits will be required for forestry alone. Moreover, the Corps' permit procedure is very complex, costly and time-consuming. Needless duplication and unnecessary delays are threatened at all levels of government.

For example, to tie in with the photo of Georgia, we have a map which shows the proposed area for which the State of Georgia will plan under their coastal zone management planning process. The Corps would duplicate this coverage. Every section 404 permit in this area would have to be reviewed by the costal zone agency.

The Corps, recognizing this problem, has proposed to issue general permits. The general permit concept, if carried out to effect a general exemption of minor activities, serves no useful purpose. This would only add another element of confusion and uncertainty as to when an activity was "minor"—hence, coming under the general permit—or when the activity required an individual permit.

The general permits for forest road culverts already developed by several Corps districts in Idaho and the State of Washington provide that when the installer complies with the requirements of a given State law, he would satisfy the general permit conditions of section 404. This we can only view as waste and overlap of the worst kind.

We urge the committee to adopt a practical legislative solution to this serious dilemma rather than leaving it to the courts. We basically support an amendment to section 404 that restores its original concept; namely, to require the Corps to take water quality considerations into account in carrying out its maintenance programs in the truly navigable waters.

Thank you.

Senator GRAVEL. Thank you very much, Mr. McCredie.

Senator DOMENICI. What would you consider, or describe for us, what are normal activities of your particular industry? What is normal?

Mr. MCCREDIE. Senator, we believe that all the activities related to the growing of tree crops are normal, including the building of roads

and including the building of water control ditches to remove excess water and to supply water when it is needed. In addition they include harvesting and the many other forest management practices that are carried out over the long life required to grow these forest stands.

Senator DOMENICI. That wouldn't vary?

Mr. MCCREDIE. The individual practices would vary in every State and region, by soil conditions and by many other variables, particularly rainfall.

Senator DOMENICI. But the normal activities that you have described would have a varying impact depending upon where you were doing them, wouldn't they?

Mr. MCCREDIE. Yes; it varies throughout the regions. Some regions have one type of forest practice or logging method, for instance, cable logging. Some regions build roads on steep slopes and other regions build roads on flat slopes and carry out their logging in a much different way.

Senator DOMENICI. This area you have described as coming within their purview as being wetlands, I assume you were saying that within the original notion of the wetlands they weren't supposed to be in there. Is that what you are saying? And I am asking you are there any forest activities that are taking place that are normal in nature that might occur within wetlands whether it be your original definition or this one?

Mr. MCCREDIE. The definition as the Corps now has it laid out in their regulations would include approximately 100 million acres of productive forestlands that are used now for growing timber. These are primarily hardwood bottomlands, of which there is a great number in the South. Harvesting and roadbuilding activities are carried out on these hardwood bottomlands that would come under the definition of wetlands.

Senator DOMENICI. How many acres would have been included within the concept as you are telling us to adopt it with reference to the definition of wetlands? You have mentioned the figure 100 million acres. How many would be under what you construe to be the Corps' original jurisdiction over traditional navigable waters?

Mr. MCCREDIE. I cannot give you a specific answer on that, Senator. All I can say is that the industry was not bothered by having to get those kinds of permits under their traditional jurisdiction programs.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator BUCKLEY. I am a little disturbed about the phrase, "The drainage to take off excess waters." Does this not suggest that the drainage of wetlands to create conditions where trees can be grown where otherwise these trees would not be grown? Is there a destruction of wetlands that takes place or has taken place in expanding the area in which you can grow trees?

Mr. MCCREDIE. I would say in forestry that this is not the case. We are usually not converting wetlands in the connotation of marsh lands or lands that are under shallow water to growing timber. The wetlands that seem to creep in under the Corps' definitions are lands on which trees already are growing and in which we are trying to sustain that growth.

For instance, in hardwood bottomlands where they are periodically inundated by floodwaters from the adjacent waterways.

Senator BUCKLEY. You said usually. Is it ever the case?

Mr. McCredie. I personally am not aware of one where they have converted but it could be possible. But I don't know of any.

Senator Buckley. You would agree that it is reasonable to make sure that that wouldn't take place?

Mr. McCredie. I don't think it is a feasible activity.

Senator Buckley. Thank you.

Thank you, Mr. Chairman.

Senator Burdick. I haven't read the Supreme Court cases fully, but I understand for these purposes the jurisdiction over navigable streams extends to the smallest tributary. Is that correct?

Mr. McCredie. In the case *NRDC* v. *Callaway*, the court asked the Corps to go back or ordered them to go back and expand their definition to the maximum extent permissible under the commerce clause. This is apparently what the Corps has done.

Senator Burdick. How much of the river system does it include?

Mr. McCredie. It includes all tributaries up to the point where they flow normally, 5 cubic feet per second.

Senator Burdick. And you are suggesting to go back to the traditional navigation definition. What was that?

Mr. McCredie. That in itself is a complex definition, Senator.

Senator Burdick. I understand.

Mr. McCredie. But it is primarily those waters which have been, are used, or could be used for navigation; in fact, those that are capable of carrying commerce interstate and foreign commerce.

Senator Burdick. That is hazy, "or could be used". "Could be used" could be a large part of the system, couldn't it?

Mr. McCredie. It could be. And that also is the case, if I might add, in the definition in section 16 of S. 2710, where they would change the defintion to those waters which are now used or are susceptible to being used. We feel that the term "susceptible" has a major expansion opportunity that would include most of the traditional navigable waters.

Senator Burdick. I think you put your finger on a problem of definition right now.

Mr. McCredie. Yes.

Senator Burdick. Thank you.

Senator Gravel. Senator Hart.

Senator Hart. It seems to me that the quarrel is not for a permanent program, but Congress' efforts to protect the wetlands. Is that right or not?

Mr. McCredie. I am not sure how to take that, Senator.

Senator Hart. You are talking about 100 million acres of wetlands in the South that you don't want the corps to have anything to do with. It doesn't seem to me that your problem here is with the corps' permit program.

You say you don't want the Congress to enact legislation which in any way does not protect that territory, is that right?

Mr. McCredie. I am concerned about the productive forestland that would fall under this very broad definition of wetlands. The forest industry supports the concept of preserving those wetlands that are truly the breeding grounds and the spawning grounds for important fish and shellfish resources.

Senator Hart. But that is not the 100 million acres in the South?

Mr. McCredie. No, sir.

Senator HART. Thank you.

Senator GRAVEL. Senator Morgan?

Senator MORGAN. No questions.

Senator BAKER. As I look over this panel, which represents a considerable range of interests and points of view, it seems to me that it might be useful in our considerations to figure out where we got where we are. Senator Domenici is entirely right, we ended up there because the courts put us there and the Corps of Engineers, I think, has valiantly and honorably tried to carry out the requirements of that initial decree as confirmed in the appellate system.

Mr. Speth, I think, found a logical theory that he was convinced the corps were correct and we find ourselves then, in the case of water, in the same situation we found ourselves, Mr. Chairman, this morning at 8 o'clock on the floor of the Senate, with air. That is a situation that this committee, I suspect, did not realize it was creating at the time it created it.

I am not particularly fond of self-criticism, but I think we of the committee need to accept part of the responsibility for it and maybe confess that in the past some of our legislation has been more poetic than it has been precise.

I think that careful attention needs to be given to how we express our national aspirations and roles in the field of air legislation; but by the same token, the court should understand, as I am sure all the litigants before the court will understand, that statutes are not to be tortured into national policy. So maybe we all need to do this together.

I propose, Mr. Chairman, and I think that is the essence of much of the testimony that has appeared here, that we not stand on narrow legal issues, that we not try to compete for favor or advantage on the basis of what happened serendipitously, but rather we set about trying to establish a national policy for wetlands, for agriculture, for forestry, and that we legislate it.

We are going to do that under the gun here, but in this particular case it may be necessary to go back and pick up the stitches a little later.

I do urge that all of us think on the proposition that whatever legislation we adopt should be carefully and totally worded to meet the particular exigencies of this circumstance and that we save in reserve until a later day a further refinement and statement of our national goals and aspirations.

I guess the burden of these remarks is meant to say I am willing to do whatever we need to do to remedy a decision in section 404, but I am not willing in what is probably the last 3 weeks of this session to try to restate the general policy of the Government of the United States on both air and water.

It may be just because I am tired from having to come in at 8 o'clock this morning and trying to explain what the Congress meant with the Air Quality Amendments of 1970, and end at 8:30, trying to say what the Congress meant about the Water Quality Act. Someplace along the way, we need to help the corps resist temptation to legislate for us, and I pledge myself to that end.

Senator RANDOLPH. Thank you, Senator Baker.

Most difficult discipline is to discipline yourself. That is what you are really saying, isn't it?

Senator BAKER. That is right.

Senator RANDOLPH. We will try to do it here.

Senator BAKER. It reminds me of the fellow who came in my office. He said, "I have a little extra money. Do I have to hire an extra lawyer?" I was tempted to say, "You don't need another lawyer, you better hire yourself some witnesses."

Senator RANDOLPH. It is a night for stories. We had a candidate in West Virginia who came to me a few days ago and was very frustrated. He said, "They are telling lies about me in this campaign." And the trouble is they have proven some of them.

If all the skies were parchment, if all the seas were ink, if all the reeds were pens, and all the men could write, they still could not match the red tape of this government.

These words were written in the 14th century, directed at the Roman Government. So we have been doing it for a long while.

[Mr. McCredie's statement follows:]

STATEMENT

of the

FOREST INDUSTRY

to the

COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE

July 28, 1976

On the Impact of Corps of Engineers
Regulations for Discharge of Dredged or Fill
Material Issued under Section 404 of the
Federal Water Pollution Control Act Amendments of 1972

Submitted by

William H. McCredie
Director of Industrial Forestry
National Forest Products Association

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STATEMENT OF
WILLIAM H. McCREDIE
FOR THE
FOREST INDUSTRY
BEFORE THE
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
JULY 28, 1976
HEARING ON SECTION 404 OF THE
FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

Mr. Chairman and Members of the Committee:

My name is William H. McCredie and I am Director of Industrial Forestry for the National Forest Products Association, based in Washington, D. C. I hold a degree in forest engineering from Oregon State University and have worked in all phases of forest management for over twenty years. Appearing with me at this hearing on behalf of the industry are Harriet B. Marple, Environmental Attorney, International Paper Company, New York, and David C. Nicholson, Assistant Director of Environmental Resources, Weyerhaeuser Company, Tacoma Washington. Both are industry leaders who have been working for over the past year on the Section 404 issue.

I appear here today on behalf of the National Forest Products Association, its member associations and companies, and the American Paper Institute. Together we represent more than 2,000 member companies. We believe that this statement reflects the views of the entire forest industry -- pulp, paper, lumber, plywood, and forestry -- including the 4 1/2 million individuals who own forestlands in this country.

We applaud your recognition of the chaotic situation which surrounds §404 of P. L. 92-500 brought on by greatly expanded interpretations by both the courts and the regulatory agencies administering the program. The people who will be adversely affected by the Army Corps of Engineers current 404 program have tried in comments and hearings to convince the Corps it should adopt a more practical and workable program. To date the Corps has not acted to correct the situation. Therefore, we urge the Congress to take corrective legislative action and thank you for this opportunity to present our views.

This statement will review the history and purpose of § 404 and show how the Corps has expanded its jurisdiction far beyond the intent of 404, even as interpreted by the court in NDRC v. Callaway, (7 ERC 1784), and far beyond the bounds of reason. We also outline in considerable detail the burdens imposed on our industry and the affected public by the 404 program. We explain how the Corps' program duplicates existing regulatory programs. Finally, we discuss the most prominent of the legislative alternatives to the solution and explain why we support § 16 of S. 2710 as passed by the House of Representatives as an acceptable solution to the problem.

This submission is accompanied by a copy of our comments (Exhibit 1 referred to hereafter as 'Comments') on the Corps' interim final regulations promulgated July 25, 1975. As explained in the Comments, the Corps' regulations far exceed the statutory mandate.

History and Purpose of §404

For over 75 years the Corps has been responsible for keeping the nation's navigable waters open for waterborne commerce. For this reason the Congress gave the Corps authority under the 1899 River and Harbor Act to regulate dredging and disposal of dredged spoils in the navigable waters.

The stated objective of P. L. 92-500 was to restore and maintain the integrity of the nation's waters. Our reading of the legislative history of §404 leads us to believe that the primary purpose of §404 was to insure that the Corps would give proper consideration to water quality in disposing of dredged spoils. For instance, during the debate on the Conference Committee bill, Senator Muskie, the principal architect of the 1972 amendments, submitted the following statement regarding §404:

> 'The Conferees were uniquely aware of the process by which the dredge and fill permits are presently handled and did not wish to create a burdensome bureaucracy in light of the fact that a system to issue permits already existed. At the same time, the Committee did not believe there could be any justification for permitting the Secretary of the Army to make determination as to the environmental implications of either the site to be selected or the specific spoil to be disposed of in a site. Thus, the Conferees agreed that the Administrator of the Environmental Protection Agency should have the veto over the selection of the site for dredged spoil disposal and over any specific spoil to be disposed of in any selected site.
>
> 'The decision is not duplicative or cumbersome because the permit for review will set forth both the site to be used and the content of the matter of the spoil to be disposed. The Conferees expect the Administrator to be expeditious in his determination as to whether a site is acceptable or if specific spoil material can be disposed of at such site.
>
> 'At the same time, the Committee expects the Administrator and the Secretary to move expeditiously to end the process of dumping dredged spoil in water to limit to the greatest extent possible the disposal of dredged spoil in the navigable inland waters of the United States including the Great Lakes to identify land-based sites for the disposal of dredged spoil and, where land-based disposal is not feasible, to establish diked areas of such disposal.'

The foregoing seems to indicate clearly that 404 was intended as a program to curb the Corps -- to require the Corps to consider water quality objectives in carrying out its own maintenance programs in the navigable waters. Dredged spoils were clearly the focus. Apparently 404 was only intended to be coextensive with the Corps' jurisdiction. (For further discussion, we refer you to pages 14-16 of the Comments.)

The 404 regulations now in force bear little relation to the original water quality objective. Congress expressly said in §101(b) of P. L. 92-500 that the states have the primary right and responsibility to plan the development and use of land resources. However, in reality, under 404 as interpreted by the Corps, many millions of acres are being subjected to federal land use control; and this control is being exercised by the Army Corps of Engineers.

How did this happen? When the House and Senate passed the bills that ultimately became P. L. 92-500, both bills defined the term 'navigable waters" to mean "the navigable waters of the United States." The Senate bill included tributaries of navigable waters. The Conference Committee redefined 'navigable waters" to mean 'the waters of the United States". Because the term 'navigable waters" is used in 404, this ultimately resulted in a massive expansion of the Corps jurisdiction.

In addition, however, the Corps (and to some extent the EPA) have grossly compounded the problem by applying the 404 program to nonpoint source activities, contrary to P. L. 92-500 (see Comments pp. 12-18). Silvicultural, agricultural, and construction activities are some of the major nonpoint sources under the Act [§304(e) and §208(b)(2)] to be controlled to the extent provided in the Act by "procedures and methods (including land use requirements)" adopted pursuant to §208. Practical control of nonpoint sources in forestry can best be achieved by positive incentives to encourage the application of good land management practices.

Expanded Scope of Geographic Coverage

There was no problem with 404 for the first few years after passage of the Act because the Corps interpreted 404 as applying only to its traditional jurisdiction. However, in March, 1975, as a result of the court decision in

NRDC v. Callaway, the Corps was ordered to redefine the term "navigable waters" in its regulations. It is this new definition of navigable waters which has been one of the principal causes of our problems.

In the Callaway case the court said, in essence, that the term "navigable waters" could not mean one thing in one part of the Act and another thing in another part of the Act. This being the case, we would have expected the Corps of Engineers to adopt the definition of navigable waters which the Environmental Protection Agency had adopted several years earlier (though the EPA definition itself is probably too broad). (See Comments at pp. 26-32.)

However, astonishingly, the Corps' definition went far beyond the waters defined as navigable by EPA to include all coastal and freshwater wetlands "adjacent" or "contiguous" to such waters. We believe that the inclusion of wetlands exceeds the Corps' statutory authority to the extent that "wetlands" includes land areas not within the boundaries of water bodies. Moreover, the Corps defined wetlands so broadly, and so imprecisely, that the term even covers some lands which merely have a high water table. Indeed, the Corps suggests in a recent analysis that "adjacent wetlands" as defined in §16 may cover dry agricultural land behind dikes. Also, the term "adjacent" wetlands refers to wetlands which are near, but not actually connected with, water bodies.

We are submitting at the hearing a satellite image of the State of Georgia taken from an altitude of 570 miles (Exhibit 2).[1] It shows in great detail the vast network of rivers and streams interlacing Georgia. This is typical of most states. It also shows a large whitish area, predominantly farm land, laced with small streams which would doubtless be 5 cfs or more and hence covered by the 404 program.

1/ NASA LANDSAT-1 satellite image mosaic, State of Georgia, exhibited at the hearing and returned to witness.

The shocking scope of the Corps' regulatory coverage in other states is also vividly illustrated in attached Maps (Exhibits 3, 4, and 5). We have selected counties in the states of Oregon, West Virginia, and Maine to show how the Corps will expand its jurisdiction beyond traditionally navigable waters.

The colored lines represent our estimate of the expansions under Phases II and III for rivers, streams, and lakes based on discussions with the Corps and U.S. Geological Survey maps (Scale 1:250,000). Only a small portion of the areas that could be classified as "wetlands" under the Corps 404 definition are shown on the U.S.G.S. maps (i.e., marshes and swamps).

The Corps' definition of terms used in its construction of "navigable waters" are very imprecise (e.g., "headwaters", "coastal wetlands," and "freshwater wetlands"). It will be an almost impossible task for the Corps to actually identify on the ground or even on maps its jurisdictional area. Our experience to date is that each of the 37 Corps Districts will interpret the requirements quite differently. Adding to the confusion is the large number of different "wetlands" definitions currently used by federal and state agencies.

Exhibits 6 and 7 are maps prepared by the Savannah, Georgia, Corps District showing a preliminary determination of its jurisdiction related to drainages and wetlands respectively.

The Savannah District, which includes the major position of wetlands in Georgia, estimates that its new jurisdiction under Phases II and III will include 14,200 miles of so-called navigable waters and 2,010,000 acres of wetlands. There are many differing definitions of wetlands in use by federal and state agencies.

For example, the Fish and Wildlife Service, Department of Interior, has estimated there are 5.9 million acres of wetlands in the state of Georgia (Circular 39). The Forest Service, USDA, estimates that 4 1/2 million acres of Georgia's productive forestlands are classified as wetlands. Therefore, we are greatly concerned that the Corps' new definition of wetlands will cause wide-spread confusion and uncertainty as to when permits are required. This situation could result in administrative delays and costly litigation.

This confusion will be further compounded because of overlap with the Coastal Zone Management planning process. Exhibit 8[1] shows the area proposed by Georgia for its CZM planning to protect wetlands. As you can see, the Corps' 404 program duplicates this coverage. Under the 404 regulations the states CZM agency must review each 404 permit.

The Corps estimates that, throughout the U. S., its new jurisdiction for rivers has expanded from 50,000 miles to cover 3.5 million miles, and for lake shorelines, from 50,000 miles to 4.7 million miles. We do not know how many acres of wetlands will be covered, but we do know that many states have substantial wetland acreage. In Florida, for instance, wetlands constitute some 35 percent of the state.

We are greatly concerned about the Corps' expanded definition of wetlands because at least 84 million acres of productive forestlands lie adjacent to these rivers and lakes and are characterized by poor drainage or a high water table (Soil Conservation Service 1975 Land Use Inventory). This type of land appears to be within the Corps' definition of 'wetlands".

The Forest Survey compiled by the U. S. Forest Service indicates that 21.5 percent, or 3 1/2 million acres, of Florida's productive forestland is growing on wetlands. In Georgia 18 percent, or 4 1/2 million acres,

1/ Georgia's coast, wetlands and geologic resources, exhibited at the hearing and returned to witness.

also 18 percent, or 2 1/2 million acres. In the region that runs generally from Virginia to Texas there are over 33 million acres of productive forestlands located on wetlands.

Forestry Activities Covered

The second principal cause of our problems is that in its new regulations the Corps completely ignores the fact that §404 does not apply to nonpoint sources, including silvicultural activities. We would like to describe some of the specific forest industry activities that, under the Corps' interpretation, would require 404 permits if carried out in this vast drainage and wetland area. All of these activities should be controlled only in the manner and to the extent provided in §208 plans.

Virtually all roads constructed by the forest industry, or for that matter by anyone in this area, would require 404 permits. This is because they are constructed by the placement of earth, which the Corps regards as a "discharge of fill material". In the South forest roads through areas with high water tables are sometimes built by digging two parallel ditches--for water control--and casting the excavated material in between for the roadbed. This is illustrated in Exhibit 9. The sidecast material is regarded as a discharge of dredged material.

For the same reason, construction of ditches for any purpose requires a permit. Exhibit 10 shows the kind of water control ditch used in many regions for control of excess rain and floodwaters. This improves conditions for reforestation and forest growth.

Whenever a forest road crosses a stream, bridges or culverts are installed to provide for normal flow of the water. These structures involve the placement of earth or rock in a portion of the stream channel.

Exhibit 11 shows a stream crossing consisting of a culvert and a small bridge. If the stream has a normal flow rate of 5 cubic feet per second or

more, the structure requires a permit for placement of the earth or rock fill. Exhibit 12 is intended to give an idea of what a 5 cfs stream looks like. Private forest landowners alone construct or reconstruct about 45,000 miles of road a year with stream crossings averaging four per mile. A large percentage of the 180,000 crossings would require a 404 permit.

The Corps requires permits for many other activities if done within its jurisdiction, such as the installation of underground pipe or utility lines or the placement of erosion control structures.

Burdens Imposed by the Program

We have tried to show you the vast acreage involved in the 404 program and the numerous small day-to-day activities which are subject to this program. The Corps has grossly underestimated the number of permits required for the forest industry alone.

Moreover, the Corps' regulations provide for a very complex, costly, and time-consuming permit procedure. Needless duplication and unnecessary delays are threatened at all levels of government. (The unnecessary burdens and duplication caused by the regulations are outlined at pages 4-8 of the Comments. Also attached as Exhibit 13 is an analysis and chart showing the numerous steps involved in getting a 404 permit.)

Congress gave clear direction in § 101(f) that the procedures used in implementation of the Act should:

> "encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government."

Also, as Senator Muskie said, in the statement quoted above:

> "The Conferees were uniquely aware of the process by which the dredge and fill permits are presently handled and did not wish to create a burdensome bureaucracy in light of the fact that a system to issue permits already existed."

We feel certain Congress could not have contemplated the massive 404 program undertaken by the Corps.

All forestry activities are nonpoint sources as the term is properly interpreted. They either do not require regulation or are already subject to some other form of regulation. Plans addressing nonpoint source pollution are being adopted under § 208 of the Act. Pursuant to the Coastal Zone Management Act, 30 states are in the process of adopting plans restricting the use of wetlands. Many states have forest practice acts and other laws designed to protect water quality. The harvesting of timber on federal lands is strictly regulated in this regard.

Exemption from the onerous 404 program is especially important to the 4.5 million private individuals who own 60 percent of this country's productive timberlands. While most of these people own only 40 to 80 acres each, they produce 52 percent of our wood. The wood fiber needs of this country cannot be met without their output. The 404 program is a real disincentive to small landowners. Moreover, it is contrary to the federal policy of encouraging small landowners to grow timber, as expressed in the federal Forestry Incentive Program (16 U. S. C. 1501-1510).

General Permit Approach

The Corps, recognizing the fact that its 404 program would fall of its own weight if individual permits were required, has proposed to issue general permits. The legality of general permits under §404 is highly questionable because 404 speaks of permits for discharge "at specified disposal sites". However, even if general permits were legalized, the current 404 program as interpreted by the Corps would still be objectionable because it:

-- gives the Army Corps of Engineers control over land use decisions on millions of acres of private and public lands in derogation of states' rights and responsibilities;

-- puts an agency with no relevant experience in charge of regulating the forest, agriculture, road construction, and building industries; and

-- requires regulation of activities which should be treated as nonpoint sources not requiring regulation under forest practice acts, fish and game laws, flood plain management laws, §208 plans, coastal zone management plans, and other laws and regulations too numerous to mention.

The Federal Water Pollution Control Act is not a federal land use act. As mentioned before, Congress recognized in §101(b) of the Act that land use is primarily the right and responsibility of the states. Federal land use bills have been defeated in Congress in recent years.

Nor is §404 a wetlands protection measure. Congress did pass a wetlands protection act only nine days after it passed the Federal Water Pollution Control Act Amendments of 1972. This was the Coastal Zone Management Act, which provides federal financial support for state land use planning in the coastal zone. It is important to note that in this landmark legislation Congress continued to recognize the primary right and responsibility of the states to control land use.

Inflation Impact

On March 30, 1976, over 7 months after the Corps had implemented the new 404 program, it submitted a 50-page Inflationary Impact Statement (IIS) to the Council on Wage and Price Stability, pursuant to Executive Order No. 11821. The Corps did not even attempt to assess the major costs imposed under the 404 program, stating:

> "Although we believe all of the major impacts of the regulation have been identified, we have been unable to quantify them. Quantification is impossible because of the nature of the program itself which provides for case-by-case public interest evaluations of individual (or, in some cases, general classes of) permit applications." (Emphasis added.)

The Corps said that its own costs for the program would be $24-$53 million; it ducked the issue of cost to the affected public saying in essence the benefits would outweigh the costs because the Corps would decide each permit application on the basis of the public interest. Of course, if this were the test for determining whether a program would have an inflationary impact, there would be no point in having any agency write an IIS, since the government presumably always acts in the public interest.

There are numerous major criticisms of the Corps' IIS:

-- The Corps gave no hard data about the geographic scope of its program even though, as demonstrated by this statement, such data was available to the Corps.

-- The Corps erroneously assumed that 404 was a wetlands preservation measure and included in the "benefits" of the program the preservation of wetlands. If the Corps is correct, then the wetlands will have to be "preserved" by prohibiting or restricting activities thereon. The costs of such prohibitions or restrictions imposed on the owners of such wetlands should have been assessed. If timber cannot be cut because, say, a road construction permit is denied, there is a real, measurable economic loss.

-- The Corps should have discounted the benefits claimed for the program to the extent that its 404 program duplicates existing regulatory mechanisms.

-- The Corps assumed in its IIS that general permits were legal. If this is not so, the cost of the 404 program would be much higher than $24-$53 million, because individual permits would be required.

-- The Corps astonishingly claims in its IIS that the cost to administer the 404 program is probably the most significant economic impact of the program. This completely ignores the very substantial costs, direct and indirect, to the private sector of complying with the 404 program.

Alternative Legislative Solutions

We hope the Committee will consider legislative solutions to this serious dilemma rather than leaving it to the courts. We still support the Breaux-Tower type of amendment to 404 because it restores 404 to what we perceive as its original concept -- namely, to assure that the EPA will not interfere with the Corps in its programs to maintain navigable waters while requiring the Corps to take water quality considerations into account in carrying out these programs. Nevertheless, we think that §16 of S. 2710 as passed by the House of Representatives is an acceptable approach to the problem.

Section 16 of S. 2710

Section 16 would define navigable waters for 404 purposes as:

> "all waters which are presently used, or are susceptible to use in their natural conditions or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west cost)."

This would confine the 404 program essentially to the Corps' traditional jurisdiction, which is currently defined in the Corps' regulations [§209.120(d)(1)] as:

> "waters that have been used in the past, are now used, or are susceptible to use as a means to transport interstate commerce landward to their ordinary high water mark and up to the head

of navigation as determined by the Chief of Engineers, and also waters that are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the Pacific Coast). See 33 CFR 209.260 (ER 1165-2-302) for a more definitive explanation of this term."

In addition, §16 would add to the Corps' jurisdiction coverage of wetlands adjacent or contiguous to traditionally navigable waters. Before the Callaway case, the Corps never claimed jurisdiction over wetlands, except insofar as they were within water bodies, i.e., subject to tidal action or below the ordinary high water mark. (See §209.260 as in effect prior to Callaway.) The definition of wetlands contained in §16 is considerably broader, and to that extent constitutes an expansion of the Corps' traditional authority. We regard this as a reasonable compromise.

Section 16 would also exempt normal silvicultural, activities from 404 regulation. This actually merely restates what the Federal Water Pollution Control Act already provides (as indicated above), that 404 should not cover silvicultural activities because they are nonpoint sources.

Like §16, the Corps' regulations purport to exempt normal silvicultural activities. However, the Corps has interpreted this exemption so narrowly that it is virtually a dead letter. The House floor debate on §16 indicates that the intent was to truly exempt all normal forestry activities, including road construction.

Finally, §16 does provide a method for the Secretary of the Army and a Governor to include additional waters that should be regulated under 404.

Repeal of §404

We understand the Committee is considering repeal of §404. There are several problems that would have to be dealt with in any legislation repealing §404.

First, because of the questions about the meaning of "pollutant" and "point source" with relation to ordinary earth-moving activities discussed above, simple repeal of §404 could have the effect of merely transferring at least part of the overregulation problem to the EPA under §402.

Second, EPA would require 402 permits for some dredge and fill activities as point sources. The Corps would retain its traditional permit programs. Dredgers would have to apply to two agencies for permits on a single operation.

Third, the River and Harbor Act and the Refuse Act are old statutes, very vaguely drawn. If §404 were repealed, environmental groups might try to get the courts to interpret these laws as giving the Corps the same type of authority they claim under §404. This would cause great confusion and would not resolve the issue. Of course, this problem could be dealt with by proper legislative action or by clear legislative history.

In view of the fact that repeal legislation is not available for comment, and due to the problems mentioned above, we cannot support repeal of §404 at this time.

S. 1843

S. 1843, introduced by Senator Dole, contains an interesting suggestion: it deletes fill material from §404. If, as we have suggested, neither 402 nor 404 permits were intended to be required for ordinary uncontaminated fill and earth-moving activities, one solution to the 404 problem would be to delete fill material from §404. However, in order to avoid transfer of the problem to EPA under §402 as discussed above, the legislative history should clearly spell out that for silviculture, agriculture, and construction these are nonpoint source activities subject only to the provisions of applicable §208 plans. Alternatively, the definition of "discharge of

pollutant" should be amended to make clear that it does not cover the placement of ordinary uncontaminated fill material and other earth-moving activities for silvicultural purposes.

The forest industry could support this approach.

Hart (S. 3663)

This bill would exempt normal silvicultural activities and gives authority for issuing general permits. It would not limit the geographical scope of the Corps' jurisdiction. The exemption in the bill is no broader than the exemption in the existing regulations for silviculture. As we have discussed, the Corps' current 404 regulations would subject hundreds of thousands of nonpoint forestry activities to permit requirements in our industry alone. The total impact on all affected industries and landowners would be enormous.

For these reasons, particularly the lack of narrowing the Corps' geographic jurisdiction, which is essential for reducing both unnecessary overregulation and potential for litigation, we find this approach unacceptable.

Conclusion

We support §16 of S. 2710 because it represents a legislation solution which is a practical compromise. Any solution to the problem should reaffirm the following basic premises of the Federal Water Pollution Control Act:

(1) Silvicultural activities are nonpoint sources and should be exempt from permit requirements under 402 and 404.

(2) The states have the primary right and responsibility to control use of land resources. The Coastal Zone Management Act and existing state and local laws adequately provide for the protection of wetlands.

(3) Paperwork and interagency decision procedures should be

drastically minimized, to prevent needless duplication and unnecessary delay at all levels of government. The Corps should be redirected to fulfill its original mandate to meet water quality objectives in disposing of dredge spoil. It should not be permitted to subvert 404 by expanding its jurisdiction into areas already adequately regulated elsewhere.

STATEMENT OF
WILLIAM H. McCREDIE
FOR THE
FOREST INDUSTRY
BEFORE THE
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
JULY 28, 1976
HEARING ON SECTION 404 OF THE
FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

List of Exhibits

1. Forest Industry Comments on Section 404 Regulations to the Corps of Engineers, October 23, 1975
2. Not Attached - 1:500,000 Scale NASA Satellite Image Mosaic of the State of Georgia Submitted to the Senate Public Works Committee
3. Map of Kanawha County, West Virginia
4. Map of Kennebec County, Maine
5. Map of Curry & Josephine Counties, Oregon
6. Corps of Engineers Map of Savannah District Drainage
7. Corps of Engineers Map of Savannah District Wetlands
8. Not Attached - 1:250,000 Scale Map of Georgia Coast Showing Proposed Coastal Zone Management Area Submitted to the Senate Public Works Committee
9. Photograph of Southern Forest Road Construction in Poorly Drained Land
10. Photograph of a Minor Forestry Drainage Ditch
11. Photograph of a Low Water Bridge Showing Culvert and Bridge Placement
12. Photograph of a Typical 5 Cubic Feet Per Second Stream
13. Chart Showing Time Requirements and Steps in Corps' 404 Permit Process

76-161 O - 76 - 17

EXHIBIT 1

CORPS OF ENGINEERS

DISCHARGE OF DREDGED OR FILL MATERIAL
SECTION 404 REGULATIONS – P.L.92–500

PUBLISHED JULY 25, 1975

Forest Industry Comments
Prepared By:

National Forest Products Assn.

American Paper Institute

October 23, 1975

National Forest
Products Association

Ralph D. Hodges, Jr.
Executive Vice President

Forest Industries Building · 1619 Massachusetts Avenue, N.W.
Washington, D.C. 20036 · 202/332-1050

October 23, 1975

Lieutenant General William G. Gribble, Jr.
Chief of Engineers
Forrestal Building
Washington, D.C. 20314

Attention: DAEN-CWO-N

Dear Lieutenant General Gribble:

On behalf of the National Forest Products Association and the American Paper Institute and their members, we hereby submit comments on the "interim final" regulations issued by the Corps of Engineers under Section 404 of the Federal Water Pollution Control Act. These final regulations differ significantly from the original May 6 proposal. In view of the great public and Congressional interest in the Section 404 program and the serious questions raised as to the proper scope of the program, we believe that these regulations should have been published as proposed regulations, to give the public adequate opportunity to comment.

Our submission consists of three parts. Part I describes the areas to which the Section 404 program, as presently structured, applies and the types of forest industry activities which we believe will require permits notwithstanding the Corps' attempt to exempt certain silvicultural activities. It also discusses the duplication of effort resulting from the overly broad reach of the regulations, such as the overlap with U. S. Forest Service programs. We believe Part I amply demonstrates the vast breadth of the Section 404 program and its potential for disrupting the flow of timber and timber products to the market, at great cost and burden to the public and without correlative environmental benefit.

In the view of the forest products industry, the Federal Water Pollution Control Act provides plainly that nonpoint source activities, including those involving silviculture, agriculture and construction, insofar as they might cause substantial water quality control problems, are to be controlled where appropriate through programs under Section 208 of the Act adopted and administered by planning organizations designated by the States. Nonpoint source pollution is not subject to regulation by federally issued permits under the

Acoustical and Board Products Association • Alaska Loggers Association • American Institute of Timber Construction • American Plywood Association • American Wood Preservers Institute • Appalachian Hardwood Manufacturers, Inc. • California Redwood Association • Canadian Wood Council • Federal Timber Purchasers Association • Fine Hardwoods—American Walnut Association • Hardwood Dimension Manufacturers Association • Hardwood Plywood Manufacturers Association • Industrial Forestry Association • Maple Flooring Manufacturers Association • National Oak Flooring Manufacturers Association • National Particleboard Association • National Woodwork Manufacturers Association • North American Wholesale Lumber Association • Northeastern Lumber Manufacturers Association, Inc. • Northern Hardwood and Pine Manufacturers Association, Inc. • Red Cedar Shingle & Handsplit Shake Bureau • Southern Cypress Manufacturers Association • Southern Forest Products Association • Southern Hardwood Lumber Manufacturers Association • Western Wood Moulding and Millwork Producers • Western Wood Products Association.

Act. We also believe it is clear that the Act confers on the federal government jurisdiction only over certain waters, and does not confer on the Corps the broad powers over land areas claimed in the Section 404 regulations. Finally, we think that the Section 404 program was only intended to apply to discharges of polluted materials and not to earthmoving activities.

The effect of this unauthorized expansion of the Corps' jurisdiction will be to make millions of small landowners subject to a permit program which will be costly and burdensome for them to comply with. It will result in needless duplication of effort and unnecessary delay, as numerous federal agencies will be required to consider matters (many of an insignificant nature) which have already been considered and passed on by state and local agencies. We find it difficult to believe that this program would have been authorized had its economic and inflationary impacts been carefully evaluated in accordance with OMB Circular A-107 and Executive Order No. 11821.

In Part II of our submission we discuss the Act, its legislative history, and the applicable case law. We show that in order to carry out the meaning of the Act and the intent of Congress, the Army Corps should revise the Section 404 regulations to make clear that:

1. Section 404 permits are required only for point source discharges, and are not required for nonpoint source activities including those involving silviculture, agriculture and construction.

2. The Section 404 program applies only to point source discharges of dredged or fill material at disposal sites specified by the Corps with the application of the criteria mentioned in Section 403(b) and subject to veto by the U. S. Environmental Protection Agency. Point source discharges of dredge spoils or other pollutants into the navigable waters at other places do not require Section 404 permits; they do require Section 402 permits and may require permits under the Rivers and Harbors Act of 1899.

3. The term "navigable waters" includes lands only insofar as they are subject to the ebb and flow of the tide or are within the ordinary high water mark of covered water bodies. It does not include lands which are not part of water bodies and are only periodically inundated.

4. The term "navigable waters" does not include waters which have no potential for involvement in commerce by water transportation as a link in the chain of interstate or foreign commerce.

5. Section 404 does not apply to fill material which is not a "pollutant" as defined in Section 502(6) of the Act.

In Part III of our submission we have set forth our specific recommendations regarding the regulations, section by section.

We wish to comment here on the concept of the "general permit". We feel that the general permit approach must not be used as an excuse or substitute for revision of the Section 404 program to conform to the statutory mandate. As mentioned in the regulations, there are numerous federal laws which apply when a federal permit is to be issued. Thus to the extent that the Section 404 program is unnecessarily broad, it results in duplication of effort, burdensome paperwork, and unnecessary delay which ean be relieved only to a very limited extent by general permits.

Moreover, we understand that the general permit approach might be used to authorize certain forestry activities if carried out in accordance with the standards set forth in the general permit. What this amounts to is regulation of silvicultural activities, something which is already provided for in state forest practices acts and in U. S. Forest Service regulations, and which will be covered as needed in Section 208 plans. This overlap is unnecessary as well as unauthorized. The sensible way to deal with these problems is to avoid them in the first place by properly defining the scope of the Section 404 program. Within the context of a properly drawn Section 404 program, the forest products industry stands ready to work with you to develop general permits.

We would greatly appreciate the opportunity to discuss these comments with you and your staff.

Yours sincerely,

Ralph D. Hodges, Jr.

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PART I

IMPACT OF THE SECTION 404 REGULATIONS ON THE FOREST INDUSTRY

This Part will describe in general terms the land areas and waters to which the §404 regulations will apply, the types of forestry activities which are or could be regarded as involving disposal of dredged or fill material under the regulations, and the burdensome paperwork, needless duplication of effort and unnecessary delays that will be involved in complying with the regulations. As Part II will show, the §404 regulations constitute an unauthorized assertion of federal regulatory control over many day-to-day activities of the forest industry. They will interfere and overlap with existing forest practices acts and other programs relating to silvicultural activities.

A. Areas Covered

The definition of "navigable waters" in the Corps' regulations is overly broad. It is not limited to coastal and fresh waters but includes many land areas. This is because the Corps, wishing to cover wetlands, has included in the definition of "navigable waters" all "areas" that are "periodically inundated" and are characterized by prevalence of "salt or brackish water vegetation" or "vegetation that requires saturated soil". The effect is to cover "lands" that are "wet" but that are not "wetlands" in the sense most people think of. As discussed in Part II, pp. 19-26, this is not only unauthorized, but also unnecessary, because most true wetlands are covered by other clauses of the definition of "navigable waters".

The periodic inundation test is used without restriction or definition. It appears to cover any flooding which occurs with some frequency. (Once a year? once every five years?) In any area where the water table is naturally high, there is likely to be a prevalence of vegetation that requires saturated soil; then all it takes is a flooding to make the area a "wetland" within the meaning of the regulations.

There are about 500 million acres of commercial forestland in the United States.[1] In many regions, sizeable

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1. An unusual aspect of the forest industry is that over 136 million acres of these lands are managed by the public sector, including 92 million acres managed by the U.S. Forest Service and 21 million managed by the States.

areas of productive forestland are found on acreage that has poor drainage or slow percolation. There are millions of acres of bottomland hardwood forests in the South alone. Under the Corps' definition, the land bordering most rivers, lakes and streams, since it is subject to flooding, will be regarded as wetlands wherever the vegetation test is met. To understand the full impact of this, it must be remembered that the Corps asserts jurisdiction up to the headwaters of navigable waters and their tributaries -- headwaters being defined as the point at which flow is normally less than 5 cfs (a very small amount of flow). In sum, the Corps has asserted jurisdiction over millions of acres of land.

Moreover, the definition of "navigable waters" contains a clause authorizing the District Engineer to designate as "navigable waters" other areas such as "intermittent rivers, streams, tributaries and perched wetlands that are not contiguous or adjacent to navigable waters." Finally, as we discuss more fully in Part II, pp. 26-32, the Corps has improperly expanded the definition of "waters" to include certain intrastate waters.

B. Activities Covered

There are four primary types of forestry activities that, under the present regulations, will involve the "discharge of dredged or fill material", and thus require a permit if carried out in the land areas or waters designated as "navigable waters":

1. Road Construction. Construction of roads is an ongoing and important part of forest management. Roads are essential for harvesting, fire protection, and some types of reforestation. Many forest owners permit the public to use their lands for recreation, and roads are necessary for this purpose, too.

The type of forest road built will depend on the terrain and the use to which it will be put. Some are relatively permanent and may be hard-surfaced. Others are temporary and may be made by bulldozer. In the South, a common way to build forest roads is to dig two parallel drainage ditches separated by an area the width of a road. The excavated earth is piled into the space between the ditches. This serves the dual function of providing drainage and building a road.

In any case where soil is trucked in to create a roadbed, or where earth is placed around a culvert in a "navigable water", this is treated as a "discharge of fill" under the regulations. Even where earth is not brought

in from another area, earthmoving activities are covered under the regulations. In a letter to NFPA dated August 25, 1975, the Chief of Engineers stated that "the construction of irrigation and drainage ditches in wetlands areas where the excavated material to create the ditch is discharged in a wetland area or other water of the United States" would be a discharge of fill material.[2] In view of the expansive definition of "wetlands" and "waters of the United States" in the regulations, a substantial number of permits will be required.

In Western States roads must be carefully engineered due to the steepness of the terrain. Here, as in the rest of the country, most roads will require permits because sooner or later they cross streams, and whenever any road crosses a "navigable water" a permit will be required for placing fill over culverts, construction of bridge abutments and piers, placement of rip-rap to prevent stream bank erosion and the like. Private forestland owners alone construct or reconstruct an estimated 45,000 miles of road every year, each mile having an average of 4 stream crossings requiring a culvert or bridge. In the Pacific Northwest and certain other areas, stream crossings are more frequent.

It must be remembered that governmental forest management agencies, such as the U.S. Forest Service, will be subject to this permit requirement. In fact, one of the most startling aspects of the 404 regulations is that almost every mile of road constructed in the United States, whether by the federal government, by States, by localities or by private citizens, will require a §404 permit because it is sure to cross a stream or go through a "wet" land area regarded as a "navigable water" under the Corps' regulations.

2. Drainage Ditches and Dikes. In many regions forests must be drained to be harvested or to achieve their optimum growth. Construction of drainage ditches or canals in poorly drained forests is covered by the regulations, as mentioned above. Maintenance dredging of existing ditches or canals will require a permit if the excavated material is placed in a "navigable water".[3] (The normal practice is to place the excavated material in the vicinity of the ditch, so a substantial number of permits will be required unless the material is trucked elsewhere.) Once again, the startling conclusion is that anyone, public or private, who constructs or maintains a drainage ditch or canal in

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2. The same view is taken as to "discharges of dredged materials" resulting from construction or maintenance of canals in wetlands, in the preamble to the regulations. 40 F.R. 31321 (July 25, 1975).

3. Fn. 2, supra.

the normal fashion will require a permit if, as is likely, the drainage ditch or canal is in a "wet" land area that qualifies as a "navigable water." We have no way of estimating the potential number of permits involved here, but it must be staggering. Construction of dikes, causeways, and canal/road combinations are all covered.

3. Water Supply and Log Ponds. Water supply ponds are constructed to provide drinking water, water for industrial purposes and water for fire protection. Log storage ponds which either impound "navigable waters" or are located in "wet" land areas that qualify as "navigable waters" under the regulations are covered. Also included are cleaning of existing ponds, where the dredged material is placed in these "wet" land areas and filling in of any pond which impounds or is located in such areas. The number of ponds constructed each year is not known, but it is probably in the thousands.

4. Site Preparation. Many sites used for building will have low-lying areas which are "wet" lands or through which other "navigable waters" run. In such areas the regulations cover installation of underground pipe or utility lines, intake or discharge pipes and the like. Again, this is not limited to the forest industry -- every public or private landowner who installs a utility line or underground pipe in a "wet" land regarded as a "navigable water" will need a §404 permit to do so.

C. Unnecessary Burdens and Duplication Caused by the Regulations

Congress gave clear direction in §101(f) that the procedures used in implementation of the Act should:

> "encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government."

Section 101(b) states that:

> "It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and

enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act."

Any attempt to implement the Congressional intent underlying §404 must recognize these policies.

The interim final regulations not only require very complex, costly, burdensome, and time-consuming procedures for permit granting, but also result in needless duplication and unnecessary delays at all levels of government. All of this is unnecessary insofar as it applies to nonpoint source activities, activities in land areas not within water bodies, and all other activities for which the regulations as currently drafted improperly require a permit. By covering these activities, the regulations have unnecesarily increased the administrative and economic drain many-fold, to a point which is unjustifiable to the applicant, the Corps, and the taxpayers, and which could not have been contemplated by Congress.

All applications for permits to carry out covered activities would have to satisfy a series of major procedural requirements. The burdens (especially on small landowners) of complying with the regulations for each of the numerous activities covered by the regulations will become apparent on reading, as will the potential for delay:

1. Permit Application. Each application for a permit must include a complete description of the proposed activity; its location, purpose and use; schedules; names and addresses of adjoining property owners; all other federal, state, and local agency approvals required;. the type, source, composition, quality, and transportation method of the materials involved; and any other information requested by the District Engineer. 33 C.F.R. Section 209.120(h).

2. Public Notice, Comments, and Hearing. The District Engineer must give public notice of the application; allow an opportunity for and consider public comments; hold a public hearing, on the request of any person having an interest which may be affected by the issuance of the permit; base his decision on the record of the hearing; and advise the applicant in writing of the reasons for any denial. 33 C.F.R. §209.120(i)(1).

3. §401 Certification. Pursuant to §401 of the Act, any applicant for a federal permit to conduct

any activity which may result in a discharge into navigable waters must obtain a certification from the state that the discharge will comply with the applicable effluent limitations and standards. We believe that §401, like §404, applies only to point sources. (The Corps' position on this question is not clear to us.) Unless the State has issued any necessary §401 certification or has failed to act on a request therefor within three months, no permit under the Corps' §404 regulations will be granted. 33 C.F.R. §209.120(i)(2)(i).

4. Coastal Zone Management Certification. Pursuant to §307(c)(3) of the Coastal Zone Management Act, 16 U.S.C. §1456(c)(3), any applicant for a federal permit to conduct an activity affecting land or water uses in a coastal zone must furnish a certification that the proposed activity will comply with the State's coastal zone management program. (All thirty eligible coastal States are now in the planning phase of program development.) Under the Corps' regulations, an application for a §404 permit for an activity in a coastal zone must include such a certification from the applicant, and no permit will be granted unless the State (or Secretary of Commerce) concurs in the certification or fails to act within six months. 33 C.F.R. §209.120(i)(2)(ii).

5. Environmental Impact Statement. Pursuant to §102(2)(C) of the National Environmental Policy Act, 42 U.S.C. §4332(2)(C), all federal agencies must prepare an environmental impact statement (EIS) for all major federal actions (including issuance of permits) significantly affecting the quality of the human environment. Such EIS's are often complex, detailed, voluminous, and expensive to prepare. Under the Corps' regulations, the District Engineer must determine whether an EIS is necessary for the particular permit application; and if it is, it must be completed prior to any public hearing on the application. 33 C.F.R. §§209.120(i)(1)(iv) and 209.120(l).

6. Corps Decision-Making. In making a decision on the application, the Corps must apply a complex and lengthy series of general and specific policies, including the factors and criteria mentioned in the regulations, the EPA guidelines developed pursuant to §404(b) of the Act, and policies under numerous other statutes. The Corps must also engage in substantial interagency consultation and coordination. 33 C.F.R. §209.120(f) and (g).

7. EPA Review. Finally, pursuant to §404(c)

of the Act, EPA has a veto power over any permit application if it determines, after consultation with the Corps, that the discharge proposed will have an unacceptable adverse effect, as specified in that section. The reasons and findings underlying any such determination must be set forth in writing.

All of the above requirements are in additon to applicable state and local requirements, which may include compliance with state environmental policy acts, state forest practices acts, state or local land use laws and §208 plans, to name a few. Many of the requirements mentioned above come into play solely because a federal permit is involved, e.g., the §401 certification, the Coastal Zone Management certification, the federal EIS, EPA review and a number of the interagency consulting procedures. Also, in specific cases there will be additional overlaps. For instance, persons who purchase standing timber from the U.S. Forest Service must comply with Forest Service rules regarding proper logging practices, such as road construction.

We estimate the time requirement for complete processing of a §404 permit is between 6 months and 24 months, depending on the procedural steps required. For most private forest owners or managers this requires a planning process for operations that is impractical and inflexible. All forest enterprises -- small, large, private, or public -- deal with the management of variables. The whims of weather conditions can restrict operations in areas that were expected to be available. The market for tree species or log sizes can change rapidly, requiring changes in logging plans. These events require maximum flexibility in week-to-week harvest operations and attendant spur road construction. The market cannot be predicted 6 to 24 months ahead, nor can the industry predict the floods and storms that require emergency flood damage repairs or emergency salvage operations.

In the past 40 years, through a major joint effort of Congress, federal agencies, state legislatures and agencies, soil conservation districts, and farm and forest owners, a great deal of experience has gone into the application of improved farming and forestry practices, both to increase production of crops and to protect the basic soil resource. The programs developed by these groups have provided technical assistance, basic and applied research, and education to provide farm and forest owners the information needed to do a better job.

Many states have forest practices acts which provide operating guidelines for such activities as harvesting,

regeneration, fire protection, road construction and logging slash disposal. These are regulatory acts which have enforcement provisions. Some states require activity permits and others notification only. They are administered by state forestry agencies with staffs of knowledgeable professional foresters. These state agencies have a practical understanding of day-to-day forest management activities because they manage state forestlands and carry out technical assistance programs.

The Corps has considerable expertise and a high reputation in the areas with which it has traditionally concerned itself, but it is not experienced with respect to forestry and there is no reason to believe it can do a better job than the States.

Part II

PROPER SCOPE OF THE §404 PROGRAM

The forest products industry believes that the interim final regulations promulgated by the Army Corps of Engineers[1] exceed the authority granted under §404 of the Federal Water Pollution Control Act[2] in four regards: first, the definition of "discharge of dredged or fill material" should include only discharges from point sources; second, the regulations should apply only to such discharges when made at disposal sites specified by the Corps in accordance with §404; third, the definition of "navigable waters" should not include land areas except insofar as they are within water bodies, nor should it include intrastate water bodies which are not directly or indirectly involved in commerce by water transportation; and fourth, "fill material" should be defined to exclude material which is not a "pollutant" as defined in §502(6) of the Act.

OVERVIEW

A. Major Features of the Act

The overriding objective of the Act, as stated in §101(a), is to restore and maintain the integrity of the Nation's waters. To this end, the Act sets forth certain goals, to be accomplished by a division of labor among the federal government, the States and local organizations. These goals are to be met within the framework of stated policies, one of the most important of which (§101(b)) states that:

> "it is the policy of the Congress to recognize, preserve and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act."

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The Act makes a distinction between "point source" discharges and "nonpoint source" pollution. The federal government is to establish a permit system administered by the Environmental Protection Agency for controlling pollution from "point source discharges", which may be taken over by qualifying States.[3] With respect to "nonpoint source" pollution, the federal government has no direct responsibility for control; rather, its role is limited to issuing information, making grants and approving §208 plans.[4] Under §208, the planning organizations designated by each State must develop "effective areawide waste treatment management plans" for each area within the State which has substantial water quality control problems. These plans must include a process to identify, if appropriate, nonpoint sources of pollution, including those involving agriculture, silviculture and construction, and must set forth methods and procedures to control them.

The distinction between point sources and nonpoint sources is not always clear. The U.S. Environmental Protection Agency is working on a definition at this time, and as there are possible areas of disagreement among environmentalists, the EPA, and affected members of the public, we will limit our discussion in this presentation to certain general principles. "Point source" is defined in §502(14) as:

> "any discernible, confined and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."

"Nonpoint source" is not defined in the Act. It is generally agreed that "point source" includes discharges of industrial and municipal waste, for which it makes sense to have a permit containing effluent limitations under §301 of the Act. (Under §301, effluent limitations are based on application of specified types of control technology to reduce or eliminate discharges of pollutants; effluent limitations imply monitoring requirements, for there is generally no way to determine whether a limitation is being met without performing tests.) Nonpoint source pollution, on the other hand, is generally regarded as comprising diffuse sources of pollution for which control by a permit system or effluent

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3. §402.

4. §§105(b), 208, and 304.

limitations does not make sense. Nonpoint source pollution is best controlled by "processes, procedures and methods" such as good management practices. The definition of point source must be looked at in this light: thus for example, though the definition of "point source" includes "ditches", it would not make sense to require a permit with effluent limitations for every drainage ditch.

Under the Act nonpoint source activities include those involving silviculture, agriculture and construction.[5] As stated in an EPA publication on the subject:

> "Pollution control in forestry does not consist of rectification and treatment of polluted effluents immediately prior to discharge to an environmental receptor, e.g., a stream or lake. Pollution from forest lands is nonpoint in origin and thus defies treatment in the conventional sense. The treatment and control methodology, therefore, is principally the forest management system--a combination of practices and methods employed in the harvest of trees; log transport; reforestation; forest protection (fire, disease, insects, weed trees); and growth promotion--adapted as necessary to achieve environmental goals in union with realization of other goals, which include

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5. §208(b)(2)(F) and (H); §304(e). EPA studies that address nonpoint silvicultural activities include:

> Methods for Identifying and Evaluating the Nature and Extent of Nonpoint Sources of Pollutants, EPA-430/9-73-014, Washington, D.C., October 1973.
>
> Processes, Procedures, and Methods to Control Pollution Resulting from Silvicultural Activities, EPA-430/9-73-010, Washington, D.C., October 1973.
>
> Logging Roads and Protection of Water Quality, Region X Silviculture Project, EPA-910/9-75-007, Seattle, Washington, March 1975.
>
> Forest Harvest-Regeneration Activities and Protection of Water Quality (draft), Region X Silviculture Project, Seattle, Washington.
>
> Silviculture Chemicals and Protection of Water Quality (proposed), Region X Silviculture Project, EPA, Seattle, Washington.
>
> Silviculture Chemicals and Protection of Water Quality (proposed), Region X Silviculture Project, EPA, Seattle, Washington.

as a minimum the production of lumber and other forest products achieved by harvest of trees."[6]

The Environmental Protection Agency has given clear recognition that such silvicultural activities as construction and maintenance of logging roads and trails are nonpoint in nature.[7]

B. Unauthorized Coverage of Nonpoint Sources

Section 404[8], properly construed, applies only

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6. Processes, Procedures and Methods, fn. 5 supra, p. 11.

7. Logging Roads, fn. 5 supra, p. 11, passim.

8. Section 404 provides:

"(a) The Secretary of the Army, acting through the Chief of Engineers, may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites.

"(b) Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary of the Army (1) through the application of guidelines developed by the Administrator, in conjunction with the Secretary of the Army, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section 403(c), and (2) in any case where such guidelines under clause (1) alone would prohibit the specifications of a site, through the application additionally of the economic impact of the site on navigation and anchorage.

"(c) The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary of the Army. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection."

to discharges from point sources. Section 404(a) gives the Secretary of the Army (through the Corps of Engineers) authority to issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites". Section 502(16) provides that "[t]he term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants." And §502(12) provides:

> "The term 'discharge of a pollutant' and the term 'discharge of pollutants' each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." (Emphasis added.)

Senator Muskie, the principal sponsor of the Act, explained in discussing the bill reported by the conferees and ultimately enacted, "[t]he term 'discharge' is a word of art in the legislation. It refers to the actual discharge from a point source into the navigable waters, territorial seas or the oceans."[9] (Emphasis added.)

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9. 118 Cong. Rec. 33699 (1972), reprinted in A Legislative History of the Water Pollution Control Act Amendments of 1972, Committee Print, 93rd Cong., 1st Sess. (1973) (hereinafter "Leg. Hist."), at 178.

The reason why there is a definition of "discharge of a pollutant" and also of "discharge" is found in the legislative history. It has nothing whatever to do with any intent to include nonpoint source additions in the term "discharge". The Senate bill had only a definition of "discharge" which was defined so as not to include nonpoint source pollution. See S. 2770 92d Cong., 1st Sess. (1971), §502(n), at 166 Leg. Hist. at 1699. The House bill defined "discharge of a pollutant" as does the present §502(12), but it also included a definition of "thermal discharge" as the "introduction of water into the navigable waters... from a point source at a [different] temperature...." H.R. 11896, 92d Cong., 2d Sess. (1972), §§502(13) and 502(17), at 373-4, 375, Leg. Hist. at 1069-70, 1071. Since those two terms were intended to be "mutually exclusive" (House Rep. at 131, Leg. Hist. at 818), the House bill added a general definition of "discharge" as including "a discharge of a pollutant, a discharge of pollutants, and a thermal discharge" -- all point source discharges. H.R. 11896, §502(18), at 375, Leg. Hist. at 1071. When the conferees decided to treat "thermal" pollutants like any other pollutants (see 118 Cong. Rec. 33698 (1972), Leg.

[Footnote continued next page]

If §404 included additions of dredged or fill material from nonpoint sources, failure to comply with that section as to nonpoint sources would be unenforceable. Section 309 provides for federal enforcement in case of violation of any condition or limitation which implements §§301, 302, 306, 307, or 308 of the Act. Section 301(a) makes the "discharge of any pollutant" by any person unlawful except as in compliance with §§301, 302, 306, 307, 318, 402, and 404. It will be recalled that "discharge of a pollutant" is defined in §502(12) as meaning the addition of any pollutant to navigable waters from any point source. Since §301(a) does not apply to nonpoint sources, failure to obtain a §404 permit for a nonpoint addition of dredged or fill material would not be a violation of §301 enforceable under §309. This is further proof that Congress did not intend §404 to apply to nonpoint sources.[10]

Why does §404 apply only to point sources? Because the only purpose of §404 was to transfer to the Corps part of the EPA's jurisdiction over point source discharges of dredged spoils under §402, in order to avoid interference by the EPA with certain Corps programs.

The Army, and through it the Corps, has long had responsibility for the navigable waters. It is the Army's duty to prescribe such regulations for the use, administration, and navigation of the navigable waters as the public necessity may require.[11] The Rivers and Harbors Appropriations Act

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9. [Footnote continued from previous page]

Hist. at 175), they simply and without explanation dropped the special definition of "thermal discharge" and the reference thereto in the definition of "discharge." Thus, they retained both the definition of "discharge of a pollutant" (§502(12)) and the definition of "discharge" (§502(16)). As Senator Muskie recognized (see quotation in text), that action had no relationship whatsoever to the "point, nonpoint" distinction, worked no change in the prior limitation to point sources, and thus evidences no intention to include nonpoint source pollution in the definition of "discharge".

10. For similar reasons, §505, which authorizes citizens' suits, does not provide for such suits in cases of violations of §404.

11. 33 U.S.C. §1.

of 1899 makes it unlawful to "excavate or fill" or in any manner alter the course or condition of any port, lake, harbor or the channel of any navigable water unless authorized by the Corps.[12] The Rivers and Harbors Act of 1970 authorized the construction by the Corps in the Great Lakes of "contained spoil disposal facilities", of sufficient capacity for up to 10 years, and it authorized the Corps to extend to all other waters a comprehensive study of the characteristics of dredged spoil and alternative methods for its disposal.[13]

When the Senate bill that ultimately became the Act was first reported, it contained no §404. "Dredged spoils" were within the definition of "pollutant", and hence point source discharges of dredged spoils required EPA permits under §402. On the floor, Senator Ellender offered an amendment to the bill to carve dredged materials out of the §402 program and give the Army (the Corps) the authority to issue permits for the discharge of such materials into the navigable waters at specified disposal sites.[14] Senator Ellender explained that his amendment:

> "simply retains the authority of the Secretary of the Army to issue permits for the disposal of dredged materials. This is essential since the Secretary of the Army is responsible for maintaining and improving the navigable waters of the United States.
>
> ****
>
> "The River and Harbor Act of 1970 authorized the construction of diked disposal areas for those Great Lakes harbors which are heavily polluted, and authorized a study of the characteristics of dredged spoil.... The Public Works Appropriations Act for fiscal year 1972 included $30 million to initiate construction of the diked disposal areas for some 30 Great Lakes harbors. The authorized study of the characteristics of the spoil material has not been completed, and it would be unreasonable to place unjustified restrictions on the disposal of such materials.
>
> "The bill under consideration extends the authority of the corps to construct similar diked disposal areas in other parts of the country where found necessary."[15]

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12. 33 U.S.C. §403.

13. P.L. 91-611, 84 Stat. 1818 (§123).

14. 117 Cong. Rec. 38853 (1971), Leg. Hist. at 1386.

15. Id.

Senator Muskie, however, opposed this amendment and instead proposed the following amendment:

> "Any application for a permit under this section [§402] for the discharge of dredged spoil into the navigable waters (other than in confined disposal sites) shall be accompanied by a certificate from the Secretary of the Army that the area chosen for disposal is the only reasonably available alternative and, unless the Administrator finds that the matter to be disposed of will adversely affect municipal water supplies, shellfish beds, wildlife, fisheries (including spawning and breeding areas) or recreation areas, such permit shall issue."[16]

The Senate passed Senator Muskie's amendment.

The House bill gave permit authority for the "discharge of dredged or fill material into the navigable waters" to the Secretary of the Army; EPA had only advisory responsibilities, which could have been overridden by the Secretary.[17] As a compromise, the Conference Committee agreed to §404 as ultimately enacted.[18]

From the foregoing, it is abundantly clear that §404 applies only to point source discharges. The interim final regulations, then, are unlawful in that neither the definition of "discharge of dredged material" nor the definition of "discharge of fill material" is explicitly limited to point source discharges, nor is there any reference to point sources elsewhere in the regulations. Although the preamble to the regulations states that "any material which is excavated or dredged from a navigable water and then reintroduced through a point source into a navigable water would fall under [the term 'discharge of dredged material']",[19] this limitation is not included in the regulations.

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16. 117 Cong. Rec. 38856 (1971), Leg. Hist. at 1392.

17. H. Rep. No. 92-911, 92d Cong., 2d Sess. (1972) (hereinafter "House Rep."), at 367-8, Leg. Hist. at 1063-4.

18. See S. Rep. No. 92-1236, 92d Cong., 2d Sess. (1972) (hereinafter "Conf. Rep."), at 141-42, Leg. Hist. at 324-25.

19. Emphasis added. 40 F.R. 31321 (July 25, 1975).

It is not sufficient that, in the definitions of "dredged material" and "fill material", the regulations exclude "material resulting from normal farming, silvaculture [sic], and ranching activities, such as plowing, cultivating, seeding, and harvesting, for production of food, fiber, and forest products."[20] While we believe that this exclusion is proper as far as it goes (for it does refer to additions from nonpoint sources), the exemption does not cover all nonpoint sources,[21] and in any event, these definitions of "discharge of dredged material" and of "fill material" explicitly include activities which we believe are nonpoint in nature.[22]

Part I discusses what it means to the forest industry if nonpoint sources are required to have §404 permits. As indicated there, construction of roads is regarded by the forest industry as a nonpoint activity. But roads are not just built by the forest industry. An analysis of the Corps' regulations reveals that almost all roads constructed in the United States, whether by the federal government, States, local governments or private individuals, will require §404 permits unless the regulations are amended to apply only to point source discharges. The same is true of numerous other nonpoint activities common to silviculture, agriculture and construction, such as digging of ditches for drainage or other purposes in wet areas, laying of utility lines and pipes in wet areas or in some cases across water bodies, building of dikes or impoundments, and site preparation. For all of these nonpoint activities, whether carried out publically or privately, the Corps is unlawfully and un-

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20. 33 C.F.R. §§209.120(d)(4) and (6).

21. Furthermore, the decision in NRDC v. Train, 7 ERC 1881 (D. D.C. 1975)., appeal pending, casts doubt on the propriety of this method of exclusion. That case dealt with an EPA regulation exempting from its §402 permit program certain classes of sources (e.g., discharges from small animal confinement facilities), which, in the court's view, included point sources. The court held that the Act did not give EPA the latitude to exempt entire classes of point sources from the §402 program, but instead required EPA to determine which sources were point sources and which were not.

22. We believe that the following silvicultural activities, among others, are nonpoint in nature: road fills (e.g., placement of side cast material, fill over culverts, and construction of bridge abutments and piers); industrial site fills (e.g., construction of bulkheads, underground pipe or utility lines, and drainage facilities); and fills for construction or maintenance of drainage ditches. See pp. 2-4 and 10-12, supra.

necessarily requiring §404 permits.

To avoid these problems and to cure the legal deficiency discussed, the regulations should provide explicitly that they are limited to discharges from point sources or that nonpoint sources are excluded. They should also eliminate the incorrect examples of discharges presently given.

C. Discharges Other Than at Specified Disposal Sites

The Corps' authority under §404 is limited to permits for discharges from point sources into the navigable waters "at specified disposal sites". Yet the regulations ignore this statutory requirement and treat every discharge into the navigable waters as requiring a permit, whether or not at a specified disposal site. The legislative history confirms that the Corps' authority under §404 is indeed limited to designating disposal sites (in accordance with the criteria specified in §404(b) and subject to EPA veto under §404(c)) and issuing permits for the disposal of dredged or fill material at those sites.

We have discussed above, at pp. 14-16, the origin of §404 and its relation to the program to dredge Great Lakes harbors and other Corps programs requiring spoil disposal areas. Senator Ellender, in introducing his amendment, referred repeatedly to the "diked disposal areas" of the Corps; he also said the amendment would give the EPA "a veto power over the spoil disposal areas required for construction and maintenance of all navigation projects."[23]

Regarding the EPA's responsiblities under §404, Senator Muskie explained in a memorandum submitted during debate in the Senate:

> "Second, the Environmental Protection Agency must determine whether or not a site to be used for the disposal of dredged spoil is acceptable when judged against the criteria established for fresh and ocean waters similar to that which is required under Section 403.
>
> "Third, prior to the issuance of any permit to dispose of spoil, the Administrator must determine

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23. 117 Cong. Rec. 38853 (1971), Leg. Hist. at 1386-7.

> that the material to be disposed of will not adversely affect municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife or recreational areas in the specified site. Should the Administrator so determine, no permit may issue.
>
> "The Conferees were uniquely aware of the process by which the dredge and fill permits are presently handled and did not wish to create a burdensome bureaucracy in light of the fact that a system to issue permits already existed. At the same time, the Committee did not believe there could be any justification for permitting the Secretary of the Army to make determination as to the environmental implications of either the site to be selected or the specific spoil to be disposed of in a site. Thus, the Conferees agreed that the Administrator of the Environmental Protection Agency should have the veto over the selection of the site for dredged spoil disposal and over any specific spoil to be disposed of in any selected site."[24] (Emphasis added.)

Thus, to the extent that the Corps' regulations attempt to regulate disposal of dredged or fill material at places other than "specified disposal sites" designated by the Corps, they are invalid. The discharge of pollutants consisting of dredged spoil or other pollutants from a point source into the navigable waters at any place other than a specified disposal site of the Corps requires a §402 permit, but not a §404 permit. (Depending on where it is made, it may also require authorization by the Corps under the Rivers and Harbors Appropriations Act of 1899[25]).

D. Inclusion of Land Areas in "Navigable Waters"

The Corps has unlawfully asserted jurisdiction over discharges of dredged or fill material into certain land areas. Section 404(a) authorizes the Corps to issue permits for the discharge

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24. 118 Cong. Rec. 33699 (1972), Leg. Hist. at 177.

25. 33 U.S.C. §403.

of dredged or fill material "into the navigable waters". The Corps' initial regulations under §404[26] contained a definition of "navigable waters" reflecting the traditional tests of "navigability" under §10 of the Rivers and Harbors Appropriations Act of 1899.[27] In March 1975, however, the District Court for the District of Columbia held that the term "navigable waters" in §404 means what it does in the rest of the Act, i.e., "waters of the United States, including the territorial seas" (§502(7)); that through that definition Congress "asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution"; and that the Corps must revoke and amend so much of their regulations as was inconsistent with the "full regulatory mandate of the Water Act". Natural Resources Defense Council v. Callaway, 7 ERC 1784.

In attempting to comply with this order, the Corps redefined "navigable waters" in the interim final regulations,[28]

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26. 39 F.R. 12115 (April 3, 1974).

27. 33 U.S.C. §403.

28. The Corps defined "navigable waters" as including:

> "(a) Coastal waters that are navigable waters of the United States subject to the ebb and flow of the tide, shoreward to their mean high water mark (mean higher high water mark on the Pacific coast);
> "(b) All coastal wetlands, mudflats, swamps, and similar areas that are contiguous or adjacent to other navigable waters. "Coastal wetlands" includes marshes and shallows and means those areas periodically inundated by saline or brackish waters and that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction;
> "(c) Rivers, lakes, streams, and artificial water bodies that are navigable waters of the United States up to their headwaters and landward to their ordinary high water mark;
> "(d) All artificially created channels and canals used for recreational or other navigational purposes that are connected to other navigable waters, landward to their ordinary high water mark;

[Footnote continued on next page]

but strangely enough did not adopt the EPA's definition of the same term,[29] even though the EPA is the agency authorized to administer the Act. Instead the Corps chose to define

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28. [Footnote continued from previous page]

"(e) All tributaries of navigable waters of the United States up to their headwaters and landward to their ordinary highwater mark;

"(f) Interstate waters landward to their ordinary high water mark and up to their headwaters;

"(g) Intrastate lakes, rivers and streams landward to their ordinary high water mark and up to their headwaters that are utilized:

(1) By interstate travelers for water-related recreational purposes;

(2) For the removal of fish that are sold in interstate commerce;

(3) For industrial purposes by industries interstate commerce; or

(4) In the production of agricultural commodities sold or transported in interstate commerce;

"(h) Freshwater wetlands including marshes, shallows, swamps and, similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation. "Freshwater wetlands" means those areas that are periodically inundated and that are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction; and

"(i) Those other waters which the District Engineer determines necessitate regulation for the protection of water quality as expressed in the guidelines (40 CFR 230). For example, in the case of intermittent rivers, streams, tributaries, and perched wetlands that are not contiguous or adjacent to navigable waters identified in paragraphs (a)-(h), a decision on jurisdiction shall be made by the District Engineer."

29. The EPA defines "navigable waters" to include:

"(1) All navigable waters of the United States;

"(2) Tributaries of navigable waters of the United States;

"(3) Interstate waters;

"(4) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes;

[Footnote continued on next page]

"navigable waters" as including not only coastal waters and various fresh waters but also (unlike the EPA) coastal and freshwater wetlands contiguous or adjacent to navigable waters. Coastal wetlands were defined as "those areas periodically inundated by saline or brackish waters and that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction"; freshwater wetlands were defined as "those areas that are periodically inundated and that are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction".[30] As discussed more fully in Part 1, pp. 1-2, these definitions of "wetlands" include many millions of acres of land which are only periodically flooded and which, because they have a high water table, support vegetation of the type described.

We do not disagree that most "wetlands", as the term is commonly understood, are within "navigable waters", for these areas exist at the edge of waters. Thus, since the Corps defines "navigable waters" to include coastal waters "subject to the ebb and flow of the tide, shoreward to their mean high water mark (mean higher high water mark on the Pacific Coast)" and to include various fresh waters "landward to their ordinary high water mark"[31], most wetlands will be covered by the definition. But we do object to the inclusion of "wet" lands in the term "navigable waters" simply because they have a high water table which supports the specified vegetation and are poorly drained or occasionally flooded.

Section 502(7) of the Act defines "navigable waters" as "waters of the United States, including the territorial

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29. [Footnote continued from previous page]

> "(5) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and
> "(6) Intrastate lakes, rivers, and streams which are utilized for industrial purposes by industries in interstate commerce." 40 C.F.R. §125.1(p).

30. Fn. 28, supra. p. 21.

31. Id.

seas". The Act and its legislative history make it clear that the definition was intended to reach only bodies of water. The Act refers throughout to requirements for the discharge of pollutants into water. It contains no reference whatsoever to "wetlands". Indeed, the only references to land in the entire Act indicate that land is the subject of state or local control and that the federal government has only funding or educational duties. Thus:

§101(b) provides:

> "It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of authority under this Act." (Emphasis added.)

§102(c) provides Federal money for state comprehensive water quality control plans for basins. Here "basin" is specifically defined to include rivers, coastal waters, lakes, etc., as well as "the lands drained thereby".

§104(n) requires the EPA in cooperation with various governmental bodies and private agencies to conduct and promote studies of the effects of pollution on estuaries, and states that such studies should consider the effect of "demographic trends, the exploitation of mineral resources and fossil fuels, land and industrial development, navigation, flood and erosion control, and other uses of estuaries and estuarine zones upon the pollution of the waters therein". (Emphasis added.)

Indeed, the court in NRDC v. Callaway stated that in §502(7) Congress "asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause...." 7 ERC at 1784. (Emphasis added.)

The only statements on the floor of Congress explaining §502(7) demonstrate that it was intended to apply solely to actual bodies of water, not lands. Senator Muskie stated the conferees' intent that "navigable waters" be given the broadest possible Constitutional interpretation, and then

explained:

> "It is intended that the term 'navigable waters' include all water bodies, such as lakes, streams, and rivers, regarded as public navigable waters in law which are navigable in fact. It is further intended that such waters shall be considered to be navigable in fact when they form, in their ordinary condition by themselves or by uniting with other waters or other systems of transportation, such as highways or railroads, a continuing highway over which commerce is or may be carried on with other States or with foreign countries in the customary means of trade and travel in which commerce is conducted today. In such cases the commerce on such waters would have a substantial economic effect on interstate commerce."[32] (Emphasis added.)

Likewise, Congressman Dingell -- in the sole explanation to the House of this aspect of the Conference bill -- stated with respect to the term "navigable waters":

> "The new and broader definition is in line with more recent judicial opinions which have substantially expanded that limited view of navigability -- derived from the Daniel Ball case (77 U.S. 577, 563) -- to include waterways which would be 'susceptible of being used ... with reasonable improvement,' as well as those waterways which include sections presently obstructed by falls, rapids, sand bars, currents, floating debris, et cetera [citing cases].
>
> "****Although most interstate commerce 150 years ago was accomplished on waterways, there is no requirement in the Constitution that the waterway must cross a State boundary in order to be within the interstate commerce power of the Federal Government. Rather, it is enough that the waterway serves as a link in the chain of commerce among the States as it flows in the various channels of transportation -- highways, railroads, air traffic, radio, and postal communication, waterways, et cetera.

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32. 118 Cong. Rec. 33699 (1972), Leg. Hist. at 178.

> The 'gist of Federal test' is the waterway's use 'as a highway,' not whether it is 'part of a navigable interstate or international commercial highway.' [citing cases].
>
> "Thus, this new definition clearly encompasses all water bodies, including main streams and their tributaries, for water quality purposes."[33] (Emphasis added.)

These repeated references in the legislative history to "water bodies," "waters," and "waterways" demonstrate plainly an intent to reach only actual bodies of water and not land areas that are occasionally flooded. (Of course, the concept of "navigable waters" includes those areas which are subject to the ebb and flow of the tide from such water. Cases decided subsequent to the enactment of the Water Act confirm this conclusion.[34])

The regulation of land areas above the tidal influence or the ordinary high water mark may well be within the full scope of Congress' power under the Commerce Clause generally, but that was not Congress' focus in §502(7). Congress did not intend to go to the full extent of its Commerce Clause power. For instance, it rejected a floor amendment offered by Congressman Aspin which would have required a §402 permit for a discharge of pollutants into groundwaters -- i.e., water lying below the surface of the earth.[35] The House rejected that proposed amendment.[36]

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33. 118 Cong. Rec. 33756-57 (1972), Leg. Hist. at 250. The cases cited by Congressman Dingell all deal with actual waterways. They are discussed in footnote 44, pp. 28-29, infra.

34. See United States v. Holland, 373 F. Supp. 665, 674-76 (M.D. Fla. 1974); Leslie Salt v. Froehlke, 7 ERC 1311 (N.D. Cal. 1974); and United States v. Smith, 7 ERC 1937 (E.D. Va. 1975) -- each holding that areas subject to the tidal influence were "navigable waters" within the meaning of the Act, and that §404 applied. With respect to freshwater bodies, the ordinary high water mark is the limit. See PFZ Properties v. Train, 7 ERC 1930, 1936 (D. D.C. 1975), holding that the Act, including §404, applied to a nontidal mangrove swamp connected to a navigable waterway which was covered by water throughout the year except for periods of drought "and, thus, must be below the ordinary high water mark" of the navigable waterways.

35. 118 Cong. Rec. 10666 (1972), Leg. Hist. at 589.

36. 118 Cong. Rec. 10669 (1972), Leg. Hist. at 597.

Accordingly, the inclusion of "wetlands" in the definition of "navigable waters" in the Corps' interim final regulations is beyond the authority granted to the Corps by §404. Section 209.120(d)(2) should be amended by deleting clauses (b), (h) and (i). With this modification, the regulations would cover most wetlands but would not cover land areas that are occasionally flooded.

E. Intrastate Waters Neither Potentially Involved in Commerce by Water Transportation Nor Connected to Waterways So Involved

Even in their coverage of actual bodies of water, the Corps' regulations are unauthorized by §404 in that they include as "navigable waters" certain intrastate lakes and other water bodies which were not intended to be included as "navigable waters" under §404. We believe that Congress intended "navigable waters" in that section to cover only (i) those waterways which have the potential for involvement in commerce by water transportation, as a link in the chain of interstate or foreign commerce, and (2) those water bodies (such as tributaries) which, because their flow affects such waterways, have been considered within Congress' power to regulate, protect, and promote commerce. The regulations include waters other than those just described -- namely, wholly intrastate lakes and other water bodies used solely for recreation, fishing, industry, or agriculture, and others as determined by a District Engineer[37]. Since such intrastate water bodies have no relationship to commerce by water transportation, the regulations are, in this regard also, unauthorized by the Act. We believe that this position is consistent with that of the court in NRDC v. Callaway, supra.

The Conference Report underlying the Act stated the conferees' intent that "navigable waters" "be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been or may be made for administrative purposes."[38] However, the legislative history makes clear that, in so stating, the conferees were not referring to the broadest possible interpretation of Congress' power under the Commerce Clause to regulate generally, but that they had a more specific intent. Their reference was made in the context of Congress' Commerce Clause power

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37. 33 C.F.R. §§209.120(d)(2)(i)(g) and (i). They also include land areas beyond the tidal influence or above the ordinary high water mark. See pp. 19-26, supra.

38. Conf. Rep. at 144, Leg. Hist. at 327.

over bodies of water, and it was intended to refer to the broadest possible interpretation of that power as applied to regulating commerce by water transportation.

Senator Muskie, after repeating the conferees' stated intent, explained that it was intended that the term "navigable waters" should include all water bodies "regarded as navigable in law which are navigable in fact" and that:

> "[i]t is further intended that such waters shall be considered to be navigable in fact when they form, in their ordinary condition by themselves or by uniting with other waters or other systems of transportation, such as highways or railroads, a continuing highway over which commerce is or may be carried on with other States or with foreign countries in the customary means of trade and travel in which commerce is conducted today."[39]

Thus, Senator Muskie made clear that "navigable waters" was meant to refer to bodies of water which form or could form a link in the "continuing highway" over which interstate or foreign commerce "is or may be carried on."

The remarks of Congressman Dingell are to the same effect. He explained that the reason for the new and broader definition of "navigable waters" -- the one intended to be given the "broadest possible constitutional interpretation" -- was to get away from "the old, narrow definitions of navigability, as determined by the Corps of Engineers," and the "technical" definition "as we sometimes see in some laws."[40] That old, limited view of navigability, he stated, was the one derived from the case of The Daniel Ball, 77 U.S. (10 Wall.) 557, 563 (1871) -- which states that waters "are navigable in fact when they are used, or susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water." (Emphasis added.) According to Congressman Dingell:

> "The new and broader definition is in line with more recent judicial opinions which have substantially expanded that limited view of navigability -- derived from the Daniel Ball case (77 U.S. 557,

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39. 118 Cong. Rec. 33699 (1972), Leg. Hist. at 178.

40. 118 Cong. Rec. 33757 (1972), Leg. Hist. at 250.

> 563) -- to include waterways which would be 'susceptible of being used ...with reasonable improvement,' as well as those waterways which include sections presently obstructed by falls, rapids, sand bars, currents, floating debris, et cetera [citing cases]." (Emphasis added.)[41]

Congressman Dingell then stated that there was no requirement in the Constitution that a waterway must cross a State boundary in order to be within Congress' interstate commerce power.[42] Rather he said:

> "it is enough that the waterway serves as a link in the chain of commerce among the States as it flows in the various channels of transportation -- highways, railroads, air traffic, radio and postal communications, waterways, et cetera. The 'gist of the Federal test' is the waterway's use 'as a highway,' not whether it is 'part of a navigable interstate or international commercial highway.' [Citing cases.]"[43] (Emphasis added.)

Finally, Congressman Dingell concluded that the new definition "clearly encompasses all water bodies, including main streams and their tributaries...."[44]

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41. 118 Cong. Rec. 33756 (1972), Leg. Hist. at 250.

42. 118 Cong. Rec. 33757 (1972), Leg. Hist. at 250.

43. Id.

44. Id. The cases cited by Congressman Dingell comport with this analysis. Those cases hold that a waterway is a "navigable water", even if it is not presently used as a highway or part of a highway of interstate or foreign commerce, so long as it was used as such in the past. United States v. Appalachian Power Co., 311 U.S. 377, 408-10, 416 (1940); Economy Light & Power Co. v. United States, 256 U.S. 113, 117-118, 123-124 (1921); Puente-de-Reynosa, S.A. v. City of McAllen, 357 F. 2d 43, 50-51 (5th Cir. 1966); Rochester Gas & Elec. Corp. v. FPC, 344 F.2d 594, 596-97 (2d Cir. 1965)); or could be made suitable for such use in the future by reasonable improvements (United States v. Appalachian Power Co., supra, at 407-09; Rochester Gas & Elec. Corp. v. FPC, supra, at 596); that navigability is not negated by obstructions in portions of the waterway, such as rapids, falls, sandbars, driftwood, ice, floods, or artificial obstructions (United States v. Appalachian

[Footnote continued on next page]

It is plain from Congressman Dingell's remarks that the broadening of the definition of "navigable waters" in the Act was intended to ensure coverage of

- waterways usable in their ordinary condition as interstate or international highways of commerce;

- waterways susceptible of such use with reasonable improvement, even if they include presently obstructed sections;

- wholly intrastate waterways that serve in conjunction with other channels of transportation as a link in the chain of interstate or foreign commerce; and

- tributaries of such waterways.

There was no intent to include waters which are not involved in commerce by water transportation as a link in the chain of interstate or foreign commerce and whose flow would not affect such waterways.

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44. [Footnote continued from previous page]

Power Co., supra, at 408-09; United States v. Utah, 283 U.S. 64, 84-87 (1931); Economy Light & Power Co. v. United States, supra, at 118, 122-24; The Montello, 87 U.S. (20 Wall.) 430, 441-42 (1874); that small traffic in commercial use is sufficient to render a waterway "navigable" (United States v. Appalachian Power Co., supra, at 409; Rochester Gas & Elec. Corp. v. FPC, supra, at 597); that the floating of logs in the course of continuous movement in interstate commerce renders a waterway "navigable", even if the waterway has not been used for such transportation for a long time and even though the logs are not able to traverse certain sections (Namekagon Hydro Co. v. FPC, 216 F. 2d. 509, 513 (7th Cir. 1954); State of Wisconsin v. FPC, 214 F.2d 334, 337-38 (7th Cir. 1954); Wisconsin Public Service Corp. v. FPC, 147 F.2d 743, 747-48 (7th Cir. 1945)); and that the use of a waterway for purely intrastate transport or shipments does not negate its "navigability" under the Commerce Clause so long as it is suitable for use as a connecting waterway in interstate or foreign transport or shipments (Rochester Gas & Elec. Corp. v. FPC, supra, at 597-8; Wisconsin Public Service Corp. v. FPC, supra, at 748). None of these cases -- or others that we know of -- has held that "navigable waters" includes waters which have no potential for involvement in commmerce by water transportation as at least a connecting link in interstate or foreign commerce.

In expanding the definition of "navigable waters" to the full reach of its Commerce Clause power over commerce by water transportation, it appears that Congress intended to include non-navigable stretches and tributaries the flow of which affects downstream "navigability", for these waters had, through established judicial precedent, been considered within the scope of Congress' power to protect and promote commerce on waterways which serve as a link in the chain of interstate or foreign commerce (as by flood control).[45]

As the legislative history and the cases discussed in footnote 44, pp. 28-29, demonstrate, the expanded definition of "navigable waters" which Congressman Dingell was describing and which was enacted in §502(7) was based on the broadest Constitutional interpretation, in line with the opinions cited, of Congress' power over commerce by water transportation. It was not meant to include all areas or even all waters which Congress could conceivably reach under its Commerce Clause power in all its aspects. Indeed, Congress' rejection of Congressman Aspin's amendment to include ground water -- discussed on p. 25, -- further confirms that Congress

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45. See Congressman Dingell's statement quoted on p. 28, supra, and see, e.g., Oklahoma ex rel. Phillips v. Atkinson Co., 313 U.S. 508, 523 (1941) ("Congress may exercise its control over the non-navigable stretches of a river in order to preserve or promote commerce on the navigable portions"); United States v. Grand River Dam Authority, 363 U.S. 229, 232-33 (1960).

Since passage of the act, courts have held that it applies to non-navigable tributaries, including tertiary tributaries, of waterways that are navigable in terms of waterborne commerce (United States v. Ashland Oil & Transp. Co., 504 F.2d 1317, 1320, 1328 (6th Cir. 1974); Sun Enterprises v. Train, 7 ERC 2110, 2118-20 (S.D. N.Y. 1975)), and to man-made canals connected with, and thus affecting, such navigable waterways (Weiszmann v. Corps of Engineers, 7 ERC 1523 (S.D. Fla. 1975); United States v. Holland, 373 F. Supp. 665, 673-74 (M.D. Fla. 1974)). In Ashland Oil, the court relied heavily on Congressman Dingell's remarks and the decisions in Atkinson Co. and Grand River Dam, and stated that the Act gave the federal government the authority "to control the quality of effluent from riparian owners whose land drains into nonnavigable streams in pursuance of the federal interest in preserving the navigability and the quality of the navigable waters of the commerce-carrying rivers into which these tributaries flow." 504 F.2d, at 1328.

did not intend to go to the full conceivable reach of its Commerce Clause power to regulate waters other than those potentially involved in commerce by water transportation as a link in interstate or foreign commerce.

In summary, it seems clear that Congress intended the term "navigable waters" in the Act to mean all waterways (subject to the influence of the tides or up to the ordinary high water mark) which, under the expanded judicial opinions, have the potential for involvement in commerce by water transportation as a link in the chain of interstate or foreign commerce, and the non-navigable stretches and tributaries of such waterways. There is no indication in the legislative history, and no case holds, that Congress meant to include other waters in the definition simply on the ground that it might reach them under its Commerce Clause power as applied generally to regulate matters other than commerce by water transportation. This is true, we believe, of the use of the term "navigable waters" throughout the Act[46] as defined in §502(7), and particularly as used in §404. Accordingly,

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46. We assume in these comments -- but do not concede -- that, as held in NRDC v. Callaway, the term "navigable waters" in §404 has the same meaning as it does in the rest of the Act and as is defined in §502(7). We note, however, that our comments apply with particular force to §404.

The legislative history of §404 makes plain that the whole purpose of having a separate section dealing with permits for discharge of dredged or fill material was to preserve the authority of the Corps over waterways, waters which were navigable in the traditional sense. Thus, in Senate debate on this issue, reference was frequently made to retaining the permit authority of the Secretary of the Army "who has the responsibility for maintaining and improving the navigable waters of the United States," lest the ports and harbors be closed -- "a catastrophical situation with respect to our foreign and domestic commerce" -- and thus lest the "economy...stagnate." 117 Cong. Rec. 38853-54 (1971), Leg. Hist. at 1387 (Sen. Ellender), and 117 Cong. Rec. 38855 (1971), Leg. Hist. at 1390 (Sen. Stennis). Again, the House Report, in discussing §404, referred to the necessity "to assure continuation of dredging essential to our Nation's waterborne transportation." House Rep. at 130, Leg. Hist. at 817. In discussing the final compromise embodied in the Conference Report and ultimately enacted, Senator Muskie stated that "[t]he Conferees were uniquely aware of the process by which the dredge and fill permits are presently handled and did not wish to create

[Footnote continued on next page]

to the extent that the Corps' interim final regulations define "navigable waters" to include waters other than those specified above (and they do so respecting certain wholly intrastate water bodies in 33 C.F.R. §§209.120(d)(2)(i)(g) and (i)), they are unauthorized by §404 and should be modified to reflect what we have shown to be the correct definition of that term under the Act.

F. Fill Materials Which Are Not "Pollutants" Under the Act

The interim final regulations define "fill material" as "any pollutant used to create fill in the traditional sense of replacing an aquatic area with dry land or of changing the bottom elevation of a water body for any purpose."[47] (Emphasis added.) The term "pollutant" is defined in §502(6) of the Act as:

> "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water."

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46. [Footnote continued from previous page]

a burdensome bureaucracy in the light of the fact that a system to issue permits already existed." 118 Cong. Rec. 33699 (1972), Leg. Hist. at 177. The Conference Report itself referred to dredging permits and dredging activities "essential for the maintenance of interstate and foreign commerce." Conf. Rep. at 142, Leg. Hist. at 325.

Hence, it was clearly Congress' intention to limit "navigable waters" in §404 to waters potentially affecting commerce by water transportation; and if the term is the same in §404 as in the rest of the Act, that congressional intention shows that "navigable waters" throughout the Act and as defined in §502(7) must be limited to such waters -- a conclusion which, as shown, is in accordance with the legislative history of §502(7).

47. 33 C.F.R. §209.120(d)(6).

Thus, if "fill material" in the regulations means "any pollutant" as defined in §502(6), it includes "rock" and "sand," but not normal dirt, earth, or soil.[48] In defining "discharge of fill material", however, the regulations give as an example "the building of any structure or impoundment requiring rock, sand, dirt, or other pollutants for its construction." 33 C.F.R. §209.120(d)(7). They thus indicate that the term "pollutant" for purposes of defining fill material under the regulations includes "dirt" and hence is broader than the definition in §502(6).

If the regulations do intend to cover, as "fill material", normal dirt, earth, soils, and other materials not defined as "pollutants" in the Act, they are, to that extent, unauthorized by §404. The grant of authority to the Secretary of the Army under §404 to issue permits for the discharge of "dredged or fill material" was intended to apply only to such "dredged or fill material" as is defined as a "pollutant" in the Act.[49]

As stated above, §404 is enforceable through §309 of the Act, because the "discharge" of dredged or fill material without a §404 permit or in violation of the requirements of such a permit would violate §301(a). See p. 14, supra. Section 301(a) applies only to the discharge of any "pollutant", as defined in the Act, and hence §309 enforcement is available only for the discharge of such a "pollutant". To the extent that the Corps' §404 regulations would apply to and require a permit for the discharge of earth or other materials that are not "pollutants" under §502(6), therefore, they would not be enforceable. Congress could hardly have intended §404 to apply to materials whose discharge without compliance with that section would not be a violation of

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48. The reason for this omission in §502(6) is discussed in footnote 50, p. 34, infra.

49. We note that the regulations define "dredged material" as "material that is excavated or dredged." 33 C.F.R. §209.120(d)(4). For the reasons to be shown in the text, we believe that Congress intended the term "dredged material" in §404 to be synonymous with the term "dredged spoil" listed in §502(6). In our view, the Corps' regulations plainly intend the same. But if the regulations' coverage of "material that is excavated or dredged" is intended somehow to go beyond the "dredged spoil" listed in §502(6), then for the reasons given in this section of our discussion with respect to fill material, this would not be authorized under the Act.

§301(a) and thus would not be enforceable.[50]

The provisions of §404 itself demonstrate further that this section was not intended to authorize the Corps to regulate the discharge of materials not defined as "pollutants" in the Act. Section 404(b) requires each disposal site to be specified for each permit through the application of guidelines based upon criteria comparable to the criteria applicable under §403(c). These criteria refer throughout to "pollutants" and the effect of disposal of "pollutants". Section 403 provides no criteria for the discharge of materials other than the "pollutants" and hence there can be no §404(b) guidelines for such material. Moreover, §404(c) gives the Administrator of EPA veto power over the specification of a disposal site whenever he determines "that the discharge of such [dredged or fill] materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas". In defining "pollutants", Congress made a policy determination as to which materials should be subject to a federal permit program for preventing such adverse effects.[51] It seems clear, then, that Congress intended the "dredge or fill materials" referred to in §404(a) to be those which qualify as "pollutants" under the Act.

The legislative history of §404 confirms this conclusion. While there is no discussion or indication therein of the intended meaning of the term "fill material" in §404, that meaning can be gleaned from the numerous comments regarding the term "dredged material" in that section. Senator Muskie, for example, throughout his discussion of §404, referred not to "dredged material" (the language of the bill), but to "dredged spoil" (the "pollutant" defined in §502(6)),

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50. The omission of earth and soils from the definition of a "pollutant" under the Act, and thus from the provisions of §§301(a) and 309, is entirely consistent with Congress' scheme throughout the Act, in which the addition of earth and soils to the water is regarded as coming basically from runoff and other nonpoint sources. See S. Rep. No. 92-414, 92d Cong., 1st Sess. (1971), at 39, 52, Leg. Hist. at 1457, 1470. As shown above, the federal discharge permit system is applicable only to pollution from point sources, leaving nonpoint sources and land use planning essentially to plans under §208. See pp. 1-3, supra. Since the discharge of a "pollutant" is, by definition, limited to point sources, it would have made no sense to include as a "pollutant" material (i.e., sediment) that is added from nonpoint sources.

51. See footnote 50, supra.

thus indicating his view that the two terms were intended to be synonymous.[52] Likewise, in discussing the House bill -- which also applied to "dredged or fill material" -- EPA Administrator Ruckelshaus stated that it covered "dredged spoil",[53] and Congressman Vanik referred to "polluted dredgings".[54] These indications that the "dredged material" covered by §404 was meant to be that listed as a "pollutant" in §502(6) also suggest that the same was intended to be true of "fill material".

Finally, as shown above, §404 was carved out of §402 in order to ensure the Corps control over dredge and fill operations in navigable waters.[55] There is no indication whatsoever that, in so doing, Congress intended to expand the types of materials covered beyond those covered by §402, which applies only to the discharge of "pollutants".

It is plain, then, that §404 authorizes the Corps to regulate the discharge only of such "dredged or fill material" as is within the definition of "pollutant" in the Act. To the extent that the Corps' regulations go beyond this authorization by including in the definition of "fill material" normal dirt, earth, or soils, and other material that is not a "pollutant" under the Act, they are invalid. This defect can be cured simply by defining "fill material" in 33 C.F.R. §209.120(d)(6) as "any pollutant, as defined in §502(6) of the Act, used to create fill..." and by removing any reference to "dirt" in 33 C.F.R. §209.120(d)(7).

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52. See 118 Cong. Rec. 33699 (1972), Leg. Hist. at 177-78.

53. House Rep. at 167, Leg. Hist. at 854.

54. 118 Cong. Rec. 10232 (1972), Leg. Hist. at 421-22.

55. See pp. 14-16, supra.

PART III

SECTION-BY-SECTION COMMENTS ON THE §404 REGULATIONS
(40 F.R. 31320 ff.)

§209.120(d)(2)(i). As indicated in Part II of this submission, this definition is too broad; subparagraphs (b) and (h) should be deleted because the areas mentioned are not "waters of the United States". Similarly, subparagraph (g) should be revised to restrict it to waters which have a potential for involvement in commerce by water transportation as a connecting link in interstate or foreign commerce.

Subsection (i), like numerous other parts of the regulations, provides that the District Engineer may determine that any "other water" is a "navigable water," including waters and perched wetlands that are not contiguous or adjacent to navigable waters identified in other paragraphs of the regulations. We believe this section should be deleted, for several reasons. First, the paragraph is overly broad insofar as it permits the District Engineer to designate waters which are not "navigable waters". (See discussion in Part II of this submission.) Second, a provision such as this effectively requires an application for a permit in all instances, since this is the only way a citizen can determine whether a permit is required. If he fails to apply, he runs the risk that the District Engineer will make an ex post facto determination that a permit was necessary, and he may be required to restore the area where the fill or dredged material was disposed of to its original state. This is unfair and unreasonable. Finally, when one considers the number of lakes, streams, rivers, harbors and coastal waters in the United States, it becomes apparent that to avoid an administrative nightmare, the Corps must define "navigable waters" in such fashion that applicants can determine by themselves, using common sense and without resort to complex studies, whether a water is a navigable water. The "ordinary high water mark" and the "ebb and flow of the tide" tests fulfill this requirement. For all of these reasons, subsection (i) should be deleted.

It would be helpful to substitute for subsection (i) a clause to the effect that:

> The District Engineer may at the request of an applicant issue letter determinations as to whether a particular water is a "navigable water" as defined herein.

A new subparagraph should be added making it

clear that drainage canals and irrigation ditches are not "navigable waters". The preamble indicates that this is the position of the Corps, but we do not find it reflected in the regulations.

§209.120(d)(2)(ii)(c). The distinction between manmade and natural lakes is inconsistent and serves no useful purpose. Additionally, the unduly restrictive definition does not aid in achieving the goals of the Act. We suggest the following definition of the lakes:

> "'Lakes' means natural or artificial bodies of water greater than 50 acres in surface area. Stock watering ponds and settling basins shall not be considered 'lakes'."

§209.120(d)(2)(ii)(d). Because the word "normal" is undefined, field determinations of which streams fall within the definition are impossible for even the most expert hydrologist. Additionally we consider the definition unduly restrictive. For a clarification employing accepted hydrological concepts and which fulfills the purpose of the Act we suggest:

> "Headwaters" means that portion of the stream above the point at which the seasonal low flow is less than 20 cubic feet per second.

Although the intention was apparently to exclude streams having flow of less than 5 cfs, the proviso can be read as implying that streams of smaller flow may be treated as covered if the District Engineer so determines. The "point and nonpoint source discharge characteristics of the watershed" are irrelevant to the question of whether it is a "navigable water". Moreover, the clause creates an administrative nightmare. This is another of the many clauses which leave it to the discretion of the District Engineer to decide whether or not the regulations will apply in a given case. The proviso should be deleted.

§209.120(d)(2)(ii)(e). The term "primary tributaries" is not used in the regulations. What is needed is a definition of "tributaries" for purposes of §209.120(d)(2)(i)(e). The definition should be revised to read:

> "Tributaries" means the main stems of rivers directly connecting to navigable waters of the United States up to their headwaters and does not include any additional tributaries extending off the main

stem of these tributaries.

§209.120(d)(4). We wish to point out that this definition and the definition for fill material are counter-productive from an environmental standpoint. They appear to apply to all earthmoving activities. This of course includes construction of those works whose purpose is to reduce erosion and otherwise protect the soil and water resources. Since sediment is one of the worst sources of water pollution, every effort should be made to encourage installation of works to hold the soil in place and minimize the normal erosion process. For the most part, conservation measures are voluntarily installed and maintained by landowners. Any system which would require expensive and time-delaying permits can be expected to reduce the number of conservation works installed.

§209.120(d)(5). As discussed in Part II of this submission, the definition of "discharge of dredged material" should be revised to make it clear that it includes only discharges from point sources. The reference to "runoff or overflow from a contained land or water disposal area" should be deleted, as it appears to refer to nonpoint source pollution.

§209.120(d)(6). As discussed in Part II of this submission, the definition of "fill material" should be modified by adding the words "as defined in Section 502(6) of the Federal Water Pollution Control Act" after the words "any pollutant".

§209.120(d)(7). As discussed in Part II of this submission, the definition of "discharge of fill material" should be revised to make clear that it applies only to discharges of fill material from point sources. The second sentence of the definition should be deleted. We believe that most of the activities listed are nonpoint in nature.

As indicated in Parts I and II, there is considerable controversy as to what is or is not a point source, and there are many ramifications to this determination. The Corps should not confuse the issue by supplying its own definition.

§209.120(e)(2)(i). For the reasons stated in Part II of this submission, clauses (a) and (b) should be amended to delete references to coastal and freshwater wetlands.

§209.120(e)(2)(ii). This is yet another subparagraph

which gives broad discretion to the District Engineer, in this case discretion to require a permit for a process which would otherwise be exempt because it occurred before the effective date of Phase 1, 2 or 3. It is always unfair to apply regulations retroactively, but particularly so when the regulations are so controversial. For the reasons expressed above, the subparagraph should be deleted.

Clause (a) of this subparagraph should be amended to require a §401 water quality certification "if applicable". Water quality certifications under §401 are required only for point sources. If §209.120(d)(5) and (7) are amended as suggested above, there would be no problem with clause (a), as the entire program would apply only to point sources in the first place. Similar comments apply to subparagraph (iii) of §209.120(e)(2).

§209.120(e)(2)(iii). See comment to §209.120(e)(2)(ii). The exemption for discharges of 500 cubic yards is a step in the right direction, but the exempt amount should be at least 5,000 cubic yards since this exemption covers projects which were already underway when the regulations were promulgated.

In the first proviso, the words ", if applicable," should be added after the words "Federal Water Pollution Control Act" and after the words "Coastal Zone Management Act".

The second proviso contains yet another of the provisions giving the District Engineer discretion to require a permit for an otherwise exempt activity. It should be deleted.

§209.120(e)(2)(iv). This paragraph should be deleted as it refers to nonpoint source activities.

§209.120(f)(1). We suggest that this paragraph be amended to make clear that social concerns of a non-environmental nature, such as employment opportunities, should be regarded as factors that are relevant in considering whether or not permit issuance would be in the public interest.

§209.120(f)(3). This section places the Corps in a position of policing statutory requirements for which it has no responsiblity or authority. In the interest of expediting all needed permits, the §404 permit application should be processed on its own merits without regard to requirements which are not conditions precedent to permit issuance. The first sentence should be revised to read:

"Permits will not be issued where prior certification or authorization of the proposed work is required by law and such certification or authorization has not been obtained".

§209.120(g)(1)(i)(b). All references in this subsection to "navigable waters" should be changed to "navigable waters of the United States". Such rights as the general public may have with respect to use of and access to the "navigable waters" (in the traditional sense) were not expanded by the Federal Water Pollution Control Act.

§209.120(g)(3). The effect of clause (iv) of this subsection is that no permit will be granted for work in wetlands identified as important under subparagraph (ii) unless the District Engineer concludes that the benefits of the proposed alteration outweigh the damage to the wetland resource and that the proposed alteration is necessary to realize the benefits.

It is hard to conceive of a wetland that would not be "identified as important" under subparagraph (ii). Thus the effect of this subsection (3) is to prohibit all discharges in wetlands unless the applicant makes the proper showing.

As applied to the wetlands, a test this stringent may perhaps be justified, though it poses Constitutional questions inasmuch as it may effectively deprive a property owner of the use of his property without compensation. Cf. United States v. Rands, 389 U.S. 121 (1967). However a test this stringent cannot be justified when applied to land areas. As pointed out in Part I of this submission, millions of acres of commercial timberland are included in the definition of "freshwater wetlands" or "coastal wetlands" contained in §209.120(d)(2) of the regulations, and many day-to-day activities in these areas will require permits. In most cases "alternative sites" will not be available for silvicultural activities. Unless the definition of "navigable waters" is amended as suggested, clause (iv) should not apply to such areas. In any event, subclause (a) of clause (iv) should be amended to require the submission of data only "if requested by the District Engineer".

§209.120(g)(6)(i). This subsection should be amended to make clear that historic, scenic and recreational values will not be considered by the District Engineer unless such values are recognized in an existing law or regulation which applies generally or specifically to the property involved.

The District Engineer should not deny a permit on the basis of his personal judgment that the property is, e.g., scenic, unless there is in effect some law which authorizes him to do so. We believe this was not the intent of this section; but to clarify the intent, the first sentence of the subsection should be amended to read (new matter underlined):

> "(i) Applications for permits covered by this regulation may involve areas that possess historic, cultural, scenic, conservation, recreational or similar values <u>that are required by applicable laws and regulations to be enhanced, preserved or developed.</u>"

<u>§209.120(h)(1)and (2).</u> Considering that, as discussed in Part I of this submission, the regulations cover many thousands of minor activities in navigable waters, the detail required on ENG Form 4345 is far too detailed and probably beyond the capability of many applicants. The requirement for drawings, sketches and plans should apply only in the case of major projects. Also, provision should be made for reference to a general plan in cases of continuing projects or repetitive activities.

Information as to adjacent property owners should be required only where they are likely to be impacted. In the case of a large landowner undertaking a project in the interior part of his holdings, it might be several miles to the nearest adjoining landowner. If all adjoining landowners were notified they could number in the hundreds and be far beyond the area of any possible influence by the proposed project. Where there are great distances from the proposed activity to the adjoining property the applicant should be permitted to satisfy this requirement by a statement that there are no other property owners within X miles.

Consideration should be given to a simplified, short-form application for projects likely to cost less than $25,000.

<u>§209.120(h)(2)(ii).</u> This subsection again assumes that §401 certifications are required for all discharges, whereas in fact they are required only for point source discharges.

It is not clear how the fee structure would apply in the case of a number of individual activities, all part of a single project, such as all the culverts on a road network being installed as one project. A single fee should apply in such a situation, or else the fees could

become a major expense item for an applicant.

§209.120(h)(2)(iv). If a structure is being constructed which requires a §402 permit, a State permit or a §401 certification, it is the responsibility of the applicant to obtain the necessary permit or certification. This is not a legitimate concern of the Corps. Unnecessary delays will be caused if issuance of a permit to dispose of dredged or fill material is contingent upon issuance of a permit for a structure to be erected later on the disposal site.

§209.120(h)(2)(vi). This subsection is highly objectionable because it requires the applicant to pay the cost of the environmental impact statement. Environmental impact statements are required for the benefit of the general public; they do not benefit the applicant. To assess the cost of the impact statement against the applicant under such circumstances is unlawful. In Federal Power Commission v. New England Power Company, 415 U.S. 345 (1974), the Court held that the proper construction of 31 U.S.C. §483(a) was that a reasonable charge "'should be made to each identifiable recipient for a measurable unit or amount of government service or property from which he derives a special benefit'" and that no charge for services should be made "'when the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefiting broadly the general public'" (at p. 349-51). See also National Cable Television Asso. v. United States, 415 U.S. 336 (1974).

Furthermore, the Corps has no authority under any statute to require information for the impact statement "to be compiled by an independent third party under contract with the applicant". Under the National Environmental Policy Act (42 U.S.C. 4332), the requirement of preparing an environmental impact statement rests on the Federal government, not on the applicant. The applicant may find it in his interest to assist a federal agency in the preparation of the statement, but in the absence of proper statutory authority he cannot be made to pay for it or participate in its preparation directly or through a contractor.

We believe that in all cases where an environmental impact statement is required, the Corps should consult with the applicant as to the selection of the Corps' consultant to ensure that the consultant chosen will be knowledgeable and respected in his field and competent to prepare the statement.

§209.120(i)(1)(i). The standard procedure for

processing permits must be modified to make it simple and less time-consuming. The current regulations will clearly cause a flood of applications, most of which will receive at best a cursory review by the Corps and the numerous other agencies which are expected to review them. In addition to the amendments suggested elsewhere in this Part, activities costing less than $25,000 or involving less than 1000 cubic yards of dredge or fill and other minor activities should not be subjected to the rigorous review process that major projects may appropriately need. In order to reduce delay in issuance of these permits, the Corps should impose upon itself the discipline of specific time limits. For instance, the Corps should be able to make a determination that an environmental impact statement will not be required, for most applications, within 10 days of receipt of the application.

§209.120(i)(1)(iv). The District Engineer is given a great deal of discretion throughout this regulation. The determination that an EIS is or is not required can have a major economic impact upon the applicant. The Corps should publish some guidelines for the District Engineer to follow in evaluating the need for an EIS. These guidelines should be available to the public so that the applicant can judge for himself if an EIS requirement is likely. There should be a clear-cut determination that most minor activities do not require an EIS.

§209.120(i)(1)(vi). After all actions are completed the District Engineer should be required to render a decision within 15 days in order to reduce delay. If the application is forwarded to higher authorities for a decision, the applicant should be informed both of the date it was forwarded and the reasons for its being forwarded so he can prepare himself for further questions. There should also be a time requirement for the higher authority to act.

§209.120(i)(1)(vii). The requirement that the applicant sign the permit is unnecessary. This is not done with other permits, such as NPDES permits under §402.

§209.120(i)(2)(i)(a). If the program is to remain in its present form, we suggest that the Corps explore with the States the possibility of general certifications, analogous to general permits.

§209.120(i)(2)(i)(b). Three months is not a reasonable period of time to determine if a waiver has occurred. Twenty days should be adequate, with a reservation that the State can reserve extra time to make the determination on projects of extensive size.

§209.120(i)(2)(ii). Six months is an unreasonable period of time for the State to waive its right to object to activity in a coastal zone. If the applicant certifies that the activity conforms to the coastal zone management plan or that there is no applicable plan, the Corps should proceed with issuance of the permit unless and until it has reason to believe otherwise.

§209.120(i)(2)(ix). The general permit should not be used as an excuse for failing to revise the §404 regulations to conform to the statutory mandate.

If general permits are to be used within the context of a properly drawn §404 program, the clause giving the District Engineer discretionary power to require individual permits on a case-by-case basis for activities covered by a general permit should be deleted, for the reasons stated above in this Part. The mechanism and application of general permits should be spelled out in more detail. The Corps should immediately begin issuing general permits.

§209.120(i)(3). Timing is key to an applicant's considerations in undertaking a project. Silvicultural activities are seasonal in nature. Some activities can only be carried out during certain periods because of weather, growing periods and the like. Some activities must be done on an emergency basis, such as salvage operations after a hurricane or forest fire. The length of time an approval can take under these regulations for even minor activities is of great concern to the forest industry.

All of the time periods provided here could be shortened for the vast bulk of permitted activities. In clause (i) issuance of public notice could be accomplished in 5 days; in clause (ii), thirty days should be adequate to receive comments (see §209.120(f)(i)(viii); in clause (iii), the record should be closed not later than 5 days after the meeting; in clause (iv), fifteen days should be adequate to issue a permit after other requirements are met.

§209.120(j)(1). Public notice of the extensive nature provided for here is unnecessary for minor activities. The notice could state that the Corps intended to issue a permit for an activity which had been determined to be minor and indicate where the file could be reviewed by the public.

§209.120(k)(2). The public notice should include

a statement of the benefits expected to be achieved by the project in addition to a summary of the environmental considerations.

§209.120(m)(3). The Corps should consider expanding the letter of permission procedure to the §404 program.

§209.120(n)(3). Unless the regulations are modified as suggested in this submission, timber companies will probably be applying for permits 2 or 3 years in advance of the real need for them. If the permits are granted on a timely basis, they may expire before the work is underway. Therefore this section should not be interpreted too rigidly.

Also, provision should be made in permits for maintenance of the works covered by the permit.

§209.120(o)(1). Provision should be made for modifications on application of the permit holder.

§209.120(q)(4). The expenses incurred with regard to inspections performed by the Corps should not be paid by the permit holder. See FPC v. New England Power Co., discussed above.

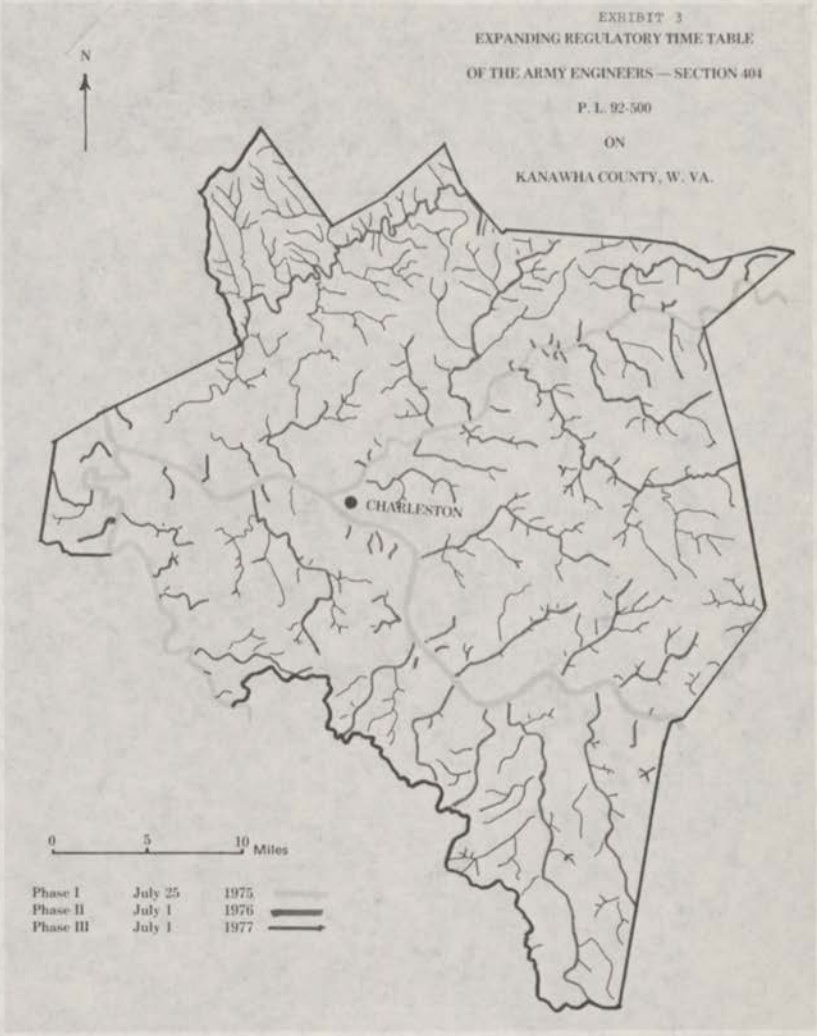


EXHIBIT 3
EXPANDING REGULATORY TIME TABLE
OF THE ARMY ENGINEERS — SECTION 404
P. L. 92-500
ON
KANAWHA COUNTY, W. VA.
N
CHARLESTON
0
5
10
Miles
Phase I July 25 1975
Phase II July 1 1976
Phase III July 1 1977

EXPANDING REGULATORY TIME TABLE
OF THE ARMY ENGINEERS — SECTION 404
P. L. 92-500 ON
KENNEBEC COUNTY
MAINE

EXHIBIT 4

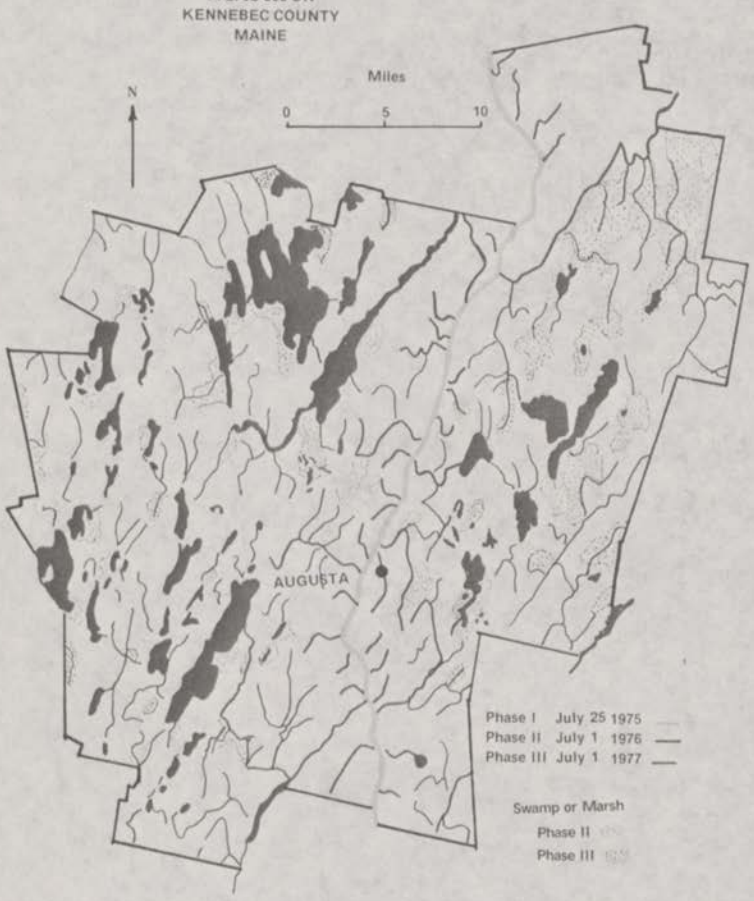


EXHIBIT 5

EXPANDING REGULATORY TIMETABLE
OF THE ARMY ENGINEERS — SECTION 404
P.L. 92-500
ON
CURRY & JOSEPHINE COUNTIES
OREGON



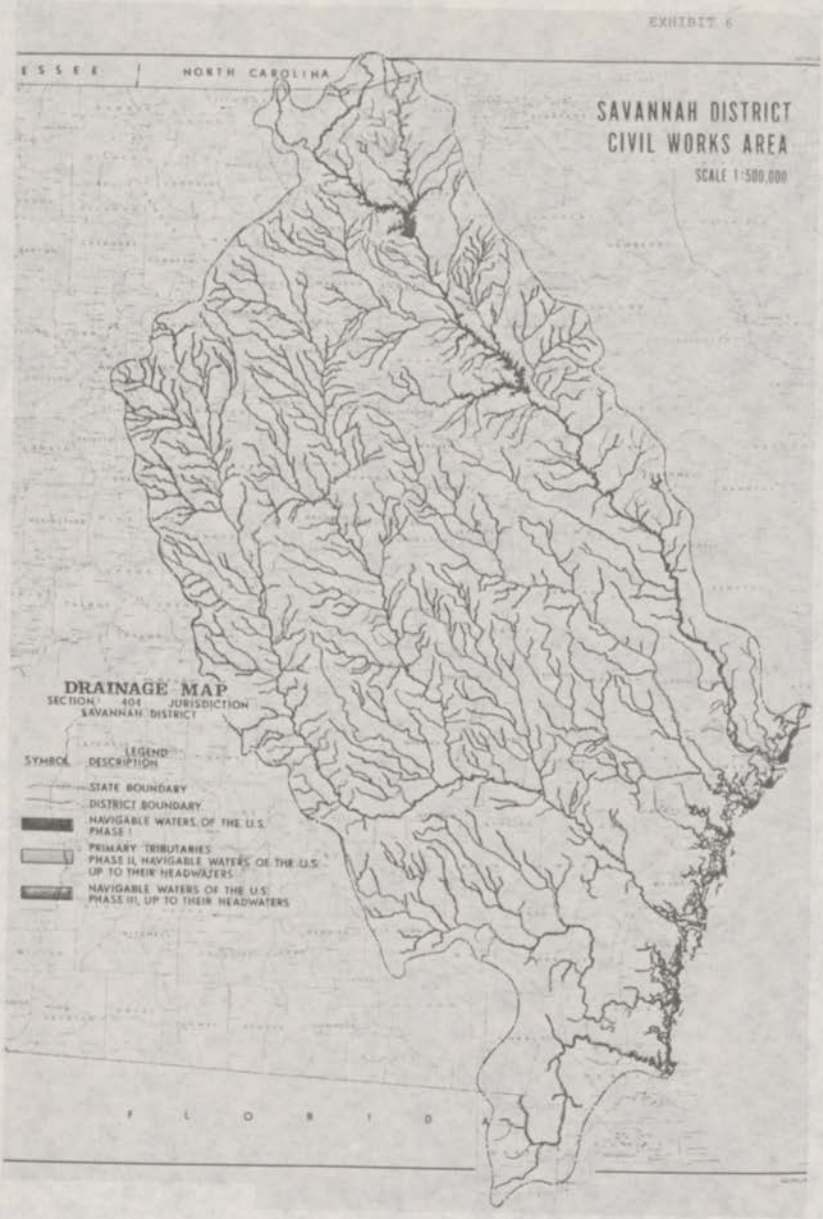


EXHIBIT 6
E S S E E
NORTH CAROLINA
SAVANNAH DISTRICT
CIVIL WORKS AREA
SCALE 1:500,000
DRAINAGE MAP
SECTION 404 JURISDICTION
SAVANNAH DISTRICT
LEGEND
SYMBOL DESCRIPTION
STATE BOUNDARY
DISTRICT BOUNDARY
NAVIGABLE WATERS OF THE U.S. PHASE I
PRIMARY TRIBUTARIES PHASE II, NAVIGABLE WATERS OF THE U.S. UP TO THEIR HEADWATERS
NAVIGABLE WATERS OF THE U.S. PHASE III, UP TO THEIR HEADWATERS
F L O R I D

EXHIBIT 7

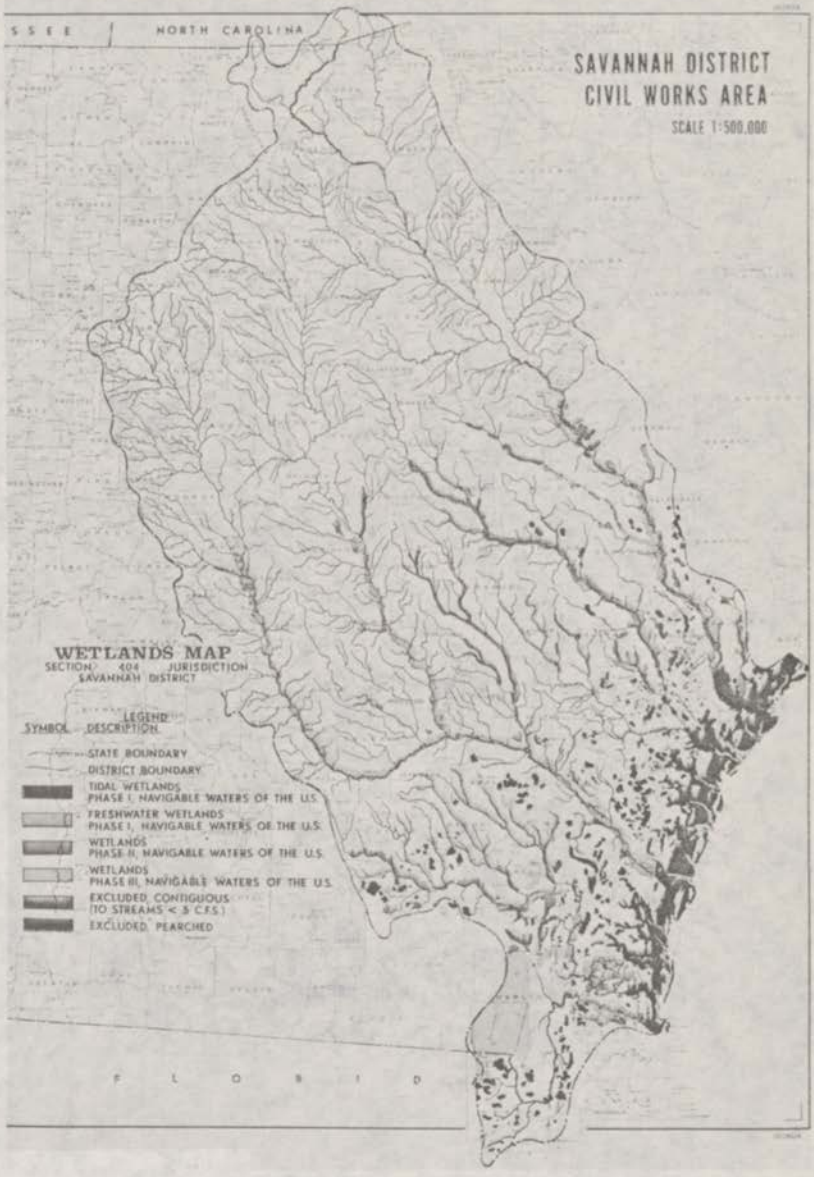

S S E E
NORTH CAROLINA
SAVANNAH DISTRICT
CIVIL WORKS AREA
SCALE 1:500,000
WETLANDS MAP
SECTION 404 JURISDICTION
SAVANNAH DISTRICT
LEGEND
SYMBOL DESCRIPTION
STATE BOUNDARY
DISTRICT BOUNDARY
TIDAL WETLANDS
PHASE I, NAVIGABLE WATERS OF THE U.S.
FRESHWATER WETLANDS
PHASE I, NAVIGABLE WATERS OF THE U.S.
WETLANDS
PHASE II, NAVIGABLE WATERS OF THE U.S.
WETLANDS
PHASE III, NAVIGABLE WATERS OF THE U.S.
EXCLUDED, CONTIGUOUS
(TO STREAMS < 5 C.F.S.)
EXCLUDED, PEARCHED
F L O R I D

EXHIBIT 9



ROAD CONSTRUCTION

Combined road/drainage ditch construction in poorly drained forestland.
Material removed from ditch is utilized to provide a higher, drier roadbed.

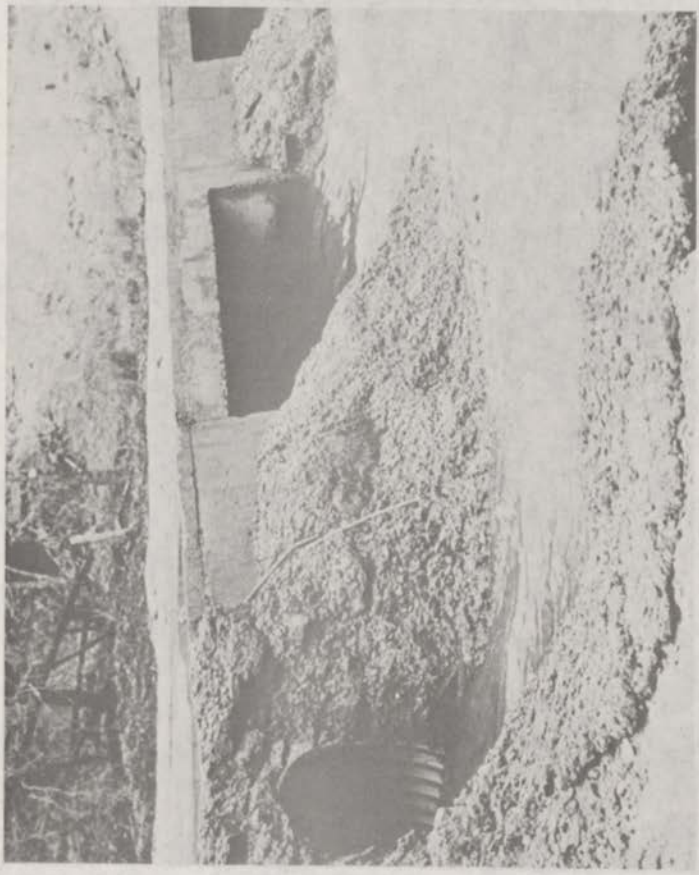
EXHIBIT 10



DRAINAGE DITCH

Minor drainage ditch in a pine plantation to control excess surface water that retards tree growth.

EXHIBIT 11



CULVERTS

Filling over road culverts may result in placement of many cubic yards of material in and above the stream channel.

EXHIBIT 12

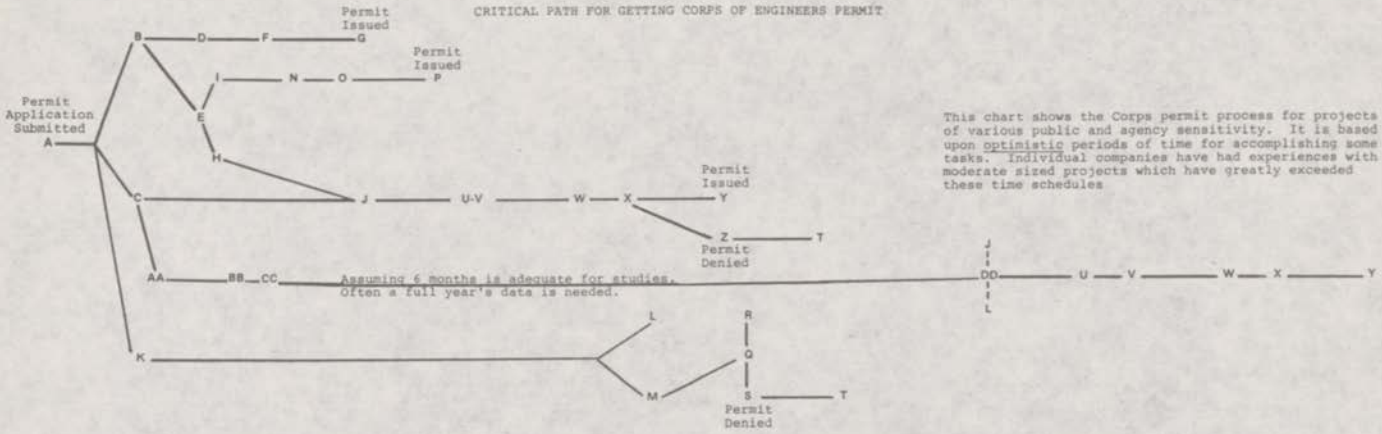


5 CFS STREAM

This is an example of a typical 5 cubic ft/sec. stream.

EXHIBIT 13

CRITICAL PATH FOR GETTING CORPS OF ENGINEERS PERMIT



This chart shows the Corps permit process for projects of various public and agency sensitivity. It is based upon optimistic periods of time for accomplishing some tasks. Individual companies have had experiences with moderate sized projects which have greatly exceeded these time schedules

Time Weeks 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

KEY TO CRITICAL PATH CHART

Process for Getting Corps of Engineers Permit

A. Permit application submitted
B. Corps issues public notice - negative declaration for EIS
C. Corps issues public notice - EIS and water quality certification required
D. No public or agency objections received
E. Agency or public objects to project
F. Seventy-five-day waiting period over - Corps decides to issue permit
G. Corps issues permit
H. Corps decides EIS required based on objections
I. Corps decides objections not significant enough to require an EIS
J. Water quality certification received - EIS requiring no long-term studies completed
K. Activity is in coastal zone - CZM certification required
L. CZM certification received
M. CZM certification denied
N. Applicant satisfies objectors concerns
O. Permit application modified and objector removes objections
P. Permit issued
Q. Applicant appeals to Secretary of Commerce
R. Secretary grants certification
S. Secretary does not grant certification
T. Project modified - permit process must start over
U. Public review of EIS
V. Public or agency requests public meeting
W. Public meeting held
X. Public meeting record closed
Y. Corps issues permit
Z. Corps denies permit
AA. Major environmental studies required to provide data for EIS
BB. Studies designed - consultants hired
CC. Studies are begun
DD. Studies completed - EIS written

76-161 O - 76 - 21

WHY ALL WETLANDS SHOULD NOT BE COVERED BY SECTION 404 OF P.L. 92-500.

Supplement to Statement of William H. McCredie
for the Forest Industry
before the Committee on Public Works
United States Senate
July 28, 1976

All interest groups involved in the Section 404 debate agree that wetlands are a very important national resource. But when the discussion gets down to--important for what purpose or what use--the agreement begins to fade. The reason for this is because the term "wetlands," in its scientific sense, includes a large complex set of different types of wetlands. A set more complex than even the expansive array of items the Corps of Engineers has included in its new definition of "navigable waters" under Section 404. Whereas "navigable waters" deals primarily with water bodies that are easily identifiable, the general term "wetlands" is used to describe "land containing much soil moisture" (Webster's Third New International Dictionary, 1971). The term then includes lands with excess soil moisture for only two months of the year to lands that are continuously covered by 6 feet of water. To many members of the public, the term wetlands may bring an image of coastal salt and fresh water marshes or the Florida Everglades which should be considered for preservation for their unique national significance. Most people do not think of lands producing farm and forest crops as wetlands.

But the natural resource managers, conservation groups, and commercial interests who pursue a day-to-day interest in all types of wetlands perceive them differently. This perception varies depending on their knowledge, experience, and interests related to wetlands. For wetlands are managed for many legitimate social purposes--waterfowl; timber; fish, shellfish, and wildlife; and crop production. Some of these purposes are compatible and some are not.

The purpose of this paper is to briefly discuss the complexities surrounding the subject of wetlands and the present Corps regulations under Section 404.

What Are Wetlands?

Webster says they are lands containing much soil moisture. This definition could include a residential lawn after watering. Scientific definitions of wetlands have tended to be vague and imprecise because they are used to describe a general condition and are not meant for actual delineation on the ground.

For example, inland wetlands are defined by Durrenberger [1] as: "Any area that is more or less regularly wet or flooded. Where the

1. Durrenberger, Robert W., Dictionary of the Environmental Sciences, National Press Books, Palo Alto, California, 1973.

water table stands at or above the land surface for at least part of the year." He defines coastal wetlands as: "Land types such as salt marshes, and brackish marshes subject to saline and/or tidal influences." For scientific discussion these definitions may serve well enough but they are very inadequate for determining the area subject to the permit requirements of a regulatory agency.

The nature of wet-lands not only varies greatly by regions of the nation and by the amount or duration of water saturation but also by very different biological communities that are able to live and thrive. Some support reeds, cattails, and grass; others, shrubs and small trees; and yet others are either now growing or capable of growing food and timber crops.

The inclusion or withdrawal of lands from the classification of wetlands is a continuous dynamic process. Changes occur both by natural processes and man's activities. Natural processes include a complex interrelationship of:

CLIMATE	Temperature, rainfall
GEOLOGICAL	Crust movement, sedimentation, sea level
BIOLOGICAL	Vegetative cover, plant succession

Man creates wetlands by construction and maintenance of ponds, dams, and other water control structures. Man also converts wetlands to other uses--by chance and by intent--by filling, drainage, and flood control activities.

Harvest of timber on lands which have nominal excess water problems can greatly increase these problems. Some timber growing lands would revert to grass or brush species more characteristic of wetlands if water control management is not carried out. For instance, well-stocked pine forests in the South transpire[2] an equivalent of 20 to 30 inches of rainfall per year. When these stands are harvested, the water table can rise to a level that inhibits pine regeneration and tree growth. Water control measures such as drainage ditches may be necessary under these conditions to restore the optimum forest productivity potential of the site.

Importance Of Wetlands

Each variety of wetland has different beneficial value to man depending on its location and individual characteristics. Some wetlands have a very evident primary value for one use; others have primary values for multiple uses.

- Fish - breeding, spawning, and protective cover for commercial and sport species
- Development - homes, recreation, dock facilities, highways, and airports
- Natural Recreation/Scientific Study - exploration for fun or knowledge

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2. The passage of water vapor from a tree into the air.

- Plant Crops - wild rice, cranberries, rice, and other grains, vegetables

- Shellfish - breeding, shelter, and habitat for commercial and natural production

- Timber Crops - preferred habitat for many bottomland hardwood species and some conifer species

- Waterfowl - food, nesting, wintering, and resting areas during migration

- Wildlife - food, water, and shelter for many species of game or fur animals

Public Policy For Wetlands

When major conflict arises between the many uses of wetlands, Congress or state legislatures are asked to establish policy to serve the public interest. At least 15 states have passed laws to protect some portion of the wetlands in that state (see attached list). The definition of wetlands for each state law is different, reflecting the specific areas to which the protective programs are aimed.

Congress has established several significant national policies directed at the preservation and/or wise use of wetlands. The following laws are examples of federal policies:

Wetlands Loan Act of 1961, P.L. 87-383, P.L. 90-205, and P.L. 94-215

In October 1961, Congress passed an appropriations authority for preservation of wetlands and other waterfowl habitat. This Act provides a long-term funding source--a loan repayed by duck stamp receipts--for the Secretary of the Interior to acquire wetlands authorized under the Migratory Bird Conservation Act. In 1967 the Act was amended to extend the authorization of $105 million for a 15-year period ending in 1977 and to provide that all federal acquisitions be subject to approval by the Governor. On February 17, 1976, the Act was again amended to increase the authorization to $200 million and extend the time period to October 1, 1983.

In 1956 the Department of the Interior identified 22.5 million acres of wetlands (of a total of 75 million acres, Circular 39) of significant value for migratory waterfowl use. The Department's initial plan identified the following wetlands maintenance goals:

	Million Acres
Remain in private ownership	10.0
State acquired	5.0
Federal acquired	7.5
TOTAL	22.5

By 1975 the Department of the Interior had acquired, by donation, fee purchase, or easement, all but 600,000 acres of its original goal. Also in 1975 the Department identified an additional 1.3 million acres of prime waterfowl habitat for federal acquisition. The current Department wetlands acquisition goal is therefore 1.9 million acres over the next decade.

Water Bank Act of 1970, P.L. 91-559

Under this law "the Secretary of Agriculture is authorized and directed to formulate and carry out a continuous program to prevent the serious loss of wetlands, and to preserve, restore and improve such lands...." The Secretary may enter into 10-year lease "agreements with landowners and operators in important migratory waterfowl nesting and breeding areas on specified farm, ranch, or other wetlands identified in a conservation plan developed in cooperation with the Soil and Water Conservation District...."

"As used in this chapter, the term 'wetlands' means the inland fresh areas (types 1-5) described in Circular 39, Wetlands of the United States, published by the U.S. Department of the Interior...."

Several USDA agencies work together in the administration of this program including the Soil Conservation Service (SCS) and the Agriculture Stabilization and Conservation Service (ASCS). Since 1972 when program funding was first authorized, USDA has expended or obligated over 64 percent of available program funds. The program has so far been directed to the primary flyways involving some 62 counties in 15 states. Even so, by June 1975, over 330 thousand acres of wetlands have been brought under lease agreement.

SCS also administers other programs to improve crop and pasture land by water control structures. In 1975 SCS adopted a policy to restrict technical and financial assistance for modifying wetlands including conversion to cropland. SCS will now only provide assistance on wetland types 1 and 2 (FWS, Circular 39).

Coastal Zone Management Act of 1972, P.L. 92-583

This law provides for federal grants to the 30 coastal states for planning and administering management programs "...to preserve, protect, develop, and where possible, to restore and enhance, the resources of the Nation's coastal zone for this and succeeding generations...."

The term "coastal zone" as used in the Act means the coastal waters--and the adjacent shorelands--and includes transitional and intertidal areas, salt marshes, wetlands, and beaches.

Coastal states receiving grants under this Act must include in their plans or programs:

1. Identification of the coastal zone including an inventory and designation of areas of particular concern.

2. Definition of permissable land and water uses within the coastal zone including priority uses in particular areas.

3. State or local authority to (a) administer land and water use regulations, control development, and resolve conflicts among competing uses, and (b) acquire fee simple or easement interests.

The 30 coastal states are currently in the process of developing these plans.

Wetlands Inventories

Many federal and state agencies have or will be making inventories of "wetlands." In almost all cases the inventories are not comparable because they are made for different purposes or uses. Working with only one of these inventories may be fine for the purpose it was intended, but to use it for a more comprehensive consideration of the wetlands question leads to confusion. Comparison of different inventories is like comparing apples and oranges. Examples of two existing inventories show this problem.

Wetlands of the United States - Circular 39, Fish and Wildlife Service, Department of the Interior

"The term 'wetlands,' as used in this report and in the wildlife field generally, refers to lowlands covered with shallow and sometimes temporary or intermittent waters."

Potential Cropland Study - (partially published), Soil Conservation Service, Department of Agriculture

"Subclass w (excess water) consists of soils in which excess water is the dominant hazard or limitation in their use. Poor soil drainage, wetness, high water table, and overflow are the criteria for determining which soils belong in this subclass."

	Circular 39	Potential Cropland
Date of Inventory	1955	1975
Purpose	Waterfowl and wildlife habitat	Land use capability
Scope of Survey	Only natural wetlands, little altered by man's activities 48 states	Natural and altered by man 50 states
Ownership Included	Private and public	Non-federal only

	Circular 39	Potential Cropland
Wetlands (million acres)		
Total	74.4	242.9
Cropland	unknown	97.6
Pasture & Range	unknown	44.3
Forest	unknown	85.2
Other	unknown	15.8
Categories of Wetlands	20	4

Several of the 20 wetlands types identified in Circular 39 contain important timber growing lands. An unknown portion of the following wetland types are commercial forestlands.

Classification Type	Importance to Waterfowl (million acres) Primary	Lesser	Total
1. Seasonally flooded basins or flats	6.4	16.7	23.1
2. Inland fresh meadows	2.0	5.5	7.5
7. Wooded Swamps	2.3	14.5	16.8
8. Bogs	---	3.3	3.3
TOTAL	10.7	40.0	50.7

Source: Circular 39

While a small proportion of these wetlands have primary value for waterfowl, a large proportion has primary value for growing timber, particularly hardwoods. In most cases both uses are compatible under proper forest management.

Conclusion

Wetlands have widely variable characteristics. Their contribution to man also spans a wide variety of benefits and uses, many of which are compatible. Where competitive uses of wetlands threaten some of these benefits, states and the federal government have established public policy to encourage a rational decision-making process. This policy takes several different forms such as the successful federal programs to purchase or provide financial incentives to landowners to maintain wetlands.

The states are also now using planning processes, with public involvement, to consider all the benefits and costs of the several wetland uses before developing regulatory management programs for

areas of concern. These planning processes will help to provide the needed information to properly consider wetlands issues. This effort by the states will also be helpful for identifying important wetland resources on maps and on the ground. This step is essential for responsible public management programs particularly when it involves regulation of activities by a permit system.

We can't believe it was the intent of Congress under Section 404 for the Army Corps of Engineers to impose a regulatory permit program for everyday farming and forestry activities in wet-lands managed for the production of food, fiber, and forest crops. The Corps has improperly included many coastal and freshwater wetlands within the scope of its jurisdiction in navigable waters. For example, the Corps defines "freshwater wetlands" as follows:

> "Freshwater wetlands including marshes, shallows, swamps and, similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation. 'Freshwater wetlands' means those areas that are periodically inundated and that are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction." (33 CFR 209.120(d)(2)(h))

This definition is without precedent--either legislative or scientific--but even worse it is extremely vague and imprecise. To make this partial inventory of wetlands which are adjacent or contiguous to other navigable waters including designation on maps and the ground will literally take years. The uncertainty and confusion on the part of millions of "wet-lands" owners during this identification phase would be further increased by the implementation of the permit program itself.

This burden, cost, and confusion will be shared by the general public because of the complex overlap with other federal and state policies covering wetlands and the great potential for litigation if wetlands are covered by Section 404. Where program overlap develops, little additional environmental benefits will result and may actually cause counterproductive results.

The successful policies of public purchase or lease agreements to protect valuable wetland resources is far more preferable to regulatory permit policies of a controlled society.

We, therefore, urge the Congress to pass legislation amending Section 404 that insures that all lands--wet or dry--used for farming, forestry, and ranching purposes are clearly given geographical exclusion and all related activities are excluded from coverage by Section 404.

The following states have enacted laws regulating tidal and/or non-tidal wetland areas in addition to the regulations of waterways per se:

Connecticut - GS 22a 1-45
Delaware-7 Del. Code §§6601-6620 (1974 Rev.)
Georgia-45 Ga. Code 136-147 (1972)
Louisiana-12 LRS 51-1361-1365 (1972 pocket)
Maine-38 MRSA 471-478 (Supp.1976)
Maryland - Md.Ann.Code, Nat.Res.Art. 9-101 et seq. (Supp.1976)
Massachusetts-130 Mass.Ann.L. 105 (Supp.1976); 131 Mass. Ann.L. 40, 40A (Supp.1976)
Michigan-1955 Acts Ch.247 (Great Lakes Submerged Lands) 1972 Acts Ch. 346 (Inland Lakes), wetlands legis. pending
Minnesota-105 MS 37-47.5 (1974)
New Hampshire- RSA 483A:1 et seq. (Supp.1975); RSA 4:40a-d (1970 Rep.Vol.); RSA 4:40e (Supp.1975)
New York-CLS §§24-0101 et seq. (Supp.1975); CLS §§25-0101 et seq. (1973)
North Carolina-113 GSNC 229 (Supp.1975); 113a GSNC 1 et seq. 1975 Repl., (Supp.1975) Env. Policy
Virginia - Va.Code Ann. §§62.1-13.1-13.20 (Supp.1976)
Washington - RCW 90.58.030 et seq. (1975)
Wisconsin - WS §59.97,62.23 STATS (1973)

Senator RANDOLPH. Mr. Speth, tell us quickly, "What is the Natural Resources Defense Council?

STATEMENT OF GUS SPETH, NATURAL RESOURCES DEFENSE COUNCIL

Mr. SPETH. It is an environmental organization.

Mr. Chairman, for the last 6 years, it has been our privilege and our pleasure to work very closely with the staff of this committee to try to breathe as much life as we can into the Clean Air Act and the Federal Water Pollution Control Act, which this committee wrote. It has been the most rewarding work that I have ever done.

I am here on behalf of NRDC, and roughly 80 national and local environment groups from around the country.

The section 404 program protects against two types of discharges which are among the most serious threats today to the chemical, physical, and biological integrity of the Nation's waters:

First, discharges of dredged spoil which are frequently contaminated with heavy metals such as mercury and cadmium and chlorinated hydrocarbons such as PCB's and Kepone and, second, discharges of fill materials which can result in the destruction of irreplacable wetlands—the most valuable and productive part of the aquatic environment.

The amendment to section 404 recently passed by the House of Representatives, referred to as the Wright amendment, would allow these discharges to occur without permits or regulation in the great majority of the country's waterways. It would leave unprotected most of the country's stream miles, most of the country's wetlands and indirectly all the downstream waters that depend on these streams and wetlands.

The Wright amendment would thus create a glaring loophole in the 1972 act. It would undermine the act's integrity and would render its goals unachievable.

Senator RANDOLPH. Mr. Speth, was that a rollcall in the House?

Mr. SPETH. Yes, it was. It certainly was a rollcall, but I don't recall the exact vote by which the Wright amendment passed.

In effect, the Wright amendment puts into the law the loophole that our organization and the National Wildlife Federation originally brought our lawsuit to close.

All that that lawsuit did was to require that the corps regulate the discharge of those two types of pollutants assigned to it in the same geographical area that EPA regulates all other pollutants.

The section 404 program has become highly politicized during the past year. It has been the victim of tremendous misunderstanding and the source of heedless concern, of which the House's action is the latest manifestation.

We are unfortunately still living with the poisoned atmosphere created by the Corps of Engineers' press release of May 6, 1975. Among other misstatements, that release said that Federal permits may be required by the farmer "who wants to deepen an irrigation ditch or plow a field."

Senator Muskie, upon reading this release, demanded that it be retracted. Over a year ago he stated on the floor of the Senate:

> The Corps, in what appears to be a deliberate attempt to distort Federal water pollution policy for purposes which I do not understand, publicly announced that a court decision which upheld the intent of Congress as regards the meaning of navigable waters would have the effect of placing thousands of farmers in violation of Federal law. Nothing could be further from the truth and the Corps knows it . . .
>
> I only hope that this matter can now be ended and we can get on with the job of regulating the discharge of dredge or fill materials in such a manner as to protect both the nation's wetlands and the quality of all the nation's waters.

If only Senator Muskie's advice had been followed. Unfortunately it was not. The corps' alarmist and unsupportable claims were repeated and even further exaggerated in countless Government news releases and agricultural and forestry newsletters and articles.

Long after the corps, to its credit, had put together and begun to implement a workable and reasonable program, the distortions referred to by Senator Muskie were perpetuated by certain groups with narrow commercial interests in need of a broader political base to achieve their objectives, one of which appears to be to escape all regulation under this act.

I don't think that there is a basis for believing that the court did something that this committee did not intend.

I want to stress three points which I hope will convince the committee that the court didn't go beyond the statute. The first is that there is not one court decision which interpreted what Congress did, but 10 decisions holding that there is a much broader jurisdiction. The Environmental Protection Agency and the Justice Department have consistently supported that position.

The reason for this essentially unanimous position is the clarity of the 1972 act's language and history on this point. Section 502(7) defines "navigable waters" as used in the act to include all "waters of the United States," and the conference report states that:

> The conferees fully intend that the term "navigable waters" be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes. [Conference Report, at 144.]

As Congressman Harsha noted in the House debate on the Wright amendment:

> The courts did not adjudicate a new definition of navigable waters . . . The Court has upheld our position on that. It did not redefine navigable waters [Congressional Record H5273, June 3, 1976.]

Similarly, there is no serious doubt that the wetlands associated with our estuaries and streams are part of "the waters of the United States." Certain wetlands, for example, coastal wetlands below mean high tide, have always been included in the traditional definition of navigable waters. When the 1972 act abandoned the artificial limitations of the navigation servitude, that abandonment not only extended the corps' jurisdiction upstream to nonnavigable waters but also laterally into the wetlands that are an integral and inseparable part of the aquatic ecosystem.

Otherwise, for example, an industrial polluter could escape regulation under section 404 merely by dumping its wastes into a marsh or other wetland instead of into the stream itself.

Most fundamentally, the basic goals of the act stated in section 101—protecting the chemical, physical and biological integrity of the

Nation's waters and providing an aquatic environment for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water—could never even be approximated if wetlands were artificially segmented off and excluded from the protected "waters of the United States."

Finally, we would also note that there has never been any serious question that section 404 reached the discharge of fill material. The phrase "or fill material" is in section 404 itself, but its origins go back as far as the Senate report.

The Senate bill had the Administrator of the Environmental Protection Agency regulating the discharge of all pollutants, including dredged and fill material. In describing EPA's responsibilities, this committee's report states:

> In establishing the levels of best practicable and best available technology for point sources the Administrator should not ignore discharges resulting from point sources other than pipelines or similar conduits. For instance, the Administrator must give proper attention to the control of dredged spoil disposal and fill operations . . . [Senate Report at 51.]

I think the corps, as a result of the lawsuit, has put together a program that can work. We believe it is a reasonable program. We believe it is not overregulatory. We believe that the Cleveland-Harsha amendment and the Hart amendment in the Senate can take care of the problems that this committee has debated and been concerned with.

There is an exclusion in the corps' regulations for normal forestry and silvicultural operations. There are general permits, over a score of which have already been issued, which can cover thousands, and already do cover thousands, of potential permit applications.

The Cleveland-Harsha-Hart amendment would take care of the stock pond problem which has come up, and the farm impoundments. It excludes them from the program. We favor that amendment.

What I am saying is that I think the program has taken a bum rap. I think the court is taking a bum rap. And I think the reason why this problem has come about is that original corps release which Senator Muskie, and other people in the Congress, and EPA, and others denounced as being misleading and distorted. If it weren't for that release, we wouldn't be here now.

I wonder whether this committee—and I trust that it doesn't—wants to premise any action on public concerns caused by a distorted and misleading release. This is what it ultimately gets back to, I think. These are very warranted concerns on the part of the people of the country, given what they have been told. But people have been misled.

We work closely with the corps to develop a reasonable program. We are eager to work with this committee to develop a workable program.

One matter in addition to Cleveland-Harsha-Hart, which I have discussed which we believe should be considered in the coming session, is the possibility of establishing in section 404 a provision analogous to that now in section 402 of the act which would allow the delegation of the section 404 program to the States.

One thing must not happen, however. We must not allow the legitimate concerns of the public about Washington redtape and

overregulation to be played on and perverted into special treatment for special interests.

The proper response to public concerns about Washington regulations is not to create more loopholes but is to insist that the corps and EPA focus on what is really important, that they respond swiftly and courteously and that it be effective.

The public's concern about Washington is not so much that there are Federal regulations, but it is that after all the paper is pushed the regulations don't accomplish anything. This committee should tell the average American farmer and rancher that they have nothing to fear from this program. You should also tell the major corporations which are devouring the landscape that they do, and hopefully the destruction will be stopped before the remaining half of our wetlands are gone.

My friend Bill McCredie's organization right now is in court trying to get out a regulation under section 208 of the act. They are in court trying to get out a regulation under section 402 of the act and they are here tonight trying to get out a regulation under section 404 of the act.

It is the basic premise of some of the organizations that have perpetuated the original distortions which the corps started that what they really want to do is get out of being regulated under this act. It would be a crying shame if that happened.

It may well be that the implications of section 404 are larger than Congress originally envisioned. But I urge, as Senator Baker did, that we look to the future. The section 404 program is more than merely being consistent with the letter of the act as it now stands. It is an essential to achieving the act's basic goal of protecting the integrity of the Nation's waters.

What we now have in section 404—and this is why we have had the most substantial outpouring of environmental support in a long time—is a chance for the first time to protect the most critical, the most valued, and the most threatened natural resource that we have in the United States: our marshes and the shallows, and other wetlands.

This committee is right now in its deliberations at the heart of what is left of the natural environment in the United States. It is being gobbled up, and it is up to you, I think, to look into this with the greatest care and to be sure that this program, which offers the public the first chance to save some remnant of what is left of those wetlands and to prevent the unlimited discharge of polluted dredge spoil, is preserved.

Thank you.

Senator RANDOLPH. Senator Domenici, I have a feeling you want to say something.

Senator DOMENICI. Not really, Mr. Chairman. I will, in this instance, say I haven't had a chance to read your whole statement.

I don't know that we disagree too much. I am having a great deal of difficulty determining what wetlands we intend to protect. I think you almost are acknowledging that maybe the interpretation in that respect is broader than the Congress intended.

On the other hand, you seem to be saying that what the Corps was implementing is right in terms of what is needed. I think it might be more appropriate to say that what the Corps is doing is exactly what the court told them to do.

I have read the case and I understand you were part of it. The court didn't leave them very many alternatives. It used the broad definition in the act and applied it to section 404, and they said, "That is your job."

I think when you really think about it, you would have to admit that we really didn't intend such a thing as their proposed phase III.

I admit that that is a long way off, but even phase II encompasses all natural lakes greater than 5 acres. I don't think we intended that in section 404, and I don't think you all intended when you brought this lawsuit.

I don't think you really wanted the Corps to do that, but you wanted them to do more than they planned to do. I think that is how you started the problem.

Mr. SPETH. It seems clear to us in the act that the jurisdiction under section 404 is as broad as it is under 402 for, say, industrial discharges.

You wouldn't want an industrial discharger to locate a plant and be able to discharge toxic materials into one of these small tributary streams.

Senator DOMENICI. I wouldn't.

Mr. SPETH. By the same token, you are going to do ultimately just as much damage to the aquatic environment by filling in the marshlands, and the swamps and the wetlands that are associated with those small tributary streams as you are dumping toxic materials into it.

Our feeling is that the jurisdiction of the two sections is the same. That is what the court told the Corps to do, to regulate the discharge of filled material and to regulate the discharge of dredged material in the same areas that EPA regulates the discharges from industrial plants, because the two sections are exactly the same.

There have been lots of court decisions holding that, not just our decision. The result is very important. What Congress has created is one of the most important environmental programs that we have ever had—the section 404 program—not just because it protects wetlands but also because it protects the whole environment from the unlimited discharge of often highly polluted dredge materials.

Senator DOMENICI. Let me just give you one observation and you might comment on it and the gentleman from the Audubon Society who has something to say in this area might comment also.

Last night, I raised an issue of the building of a bridge across the Rio Grande River in New Mexico. You are very well versed and knowledgeable on environmental problems in this country.

I first would say that I wouldn't even be satisfied, from what I know now, with a Corps rule that accepted bridge building of the type used in my example under section 404 where they have to apply under section 404 for a permit to build a bridge across that river.

Because you say the Corps has exempted it by regulation leaves us with the proposition that administratively the Corps can change its regulations at any time, which means that we assumed that it had jurisdiction to adopt section 404 permit system for that kind of situation.

I just don't believe we did.

With reference to whether or not the Corps can handle a permit system in a reasonable manner, I have not been one who says that they cannot. I assume they can. But I think there is a question of how

much in terms of a nondelegated jurisdictional arena of permits can any bureaucracy handle reasonably if the scope is so big that it can be literally thousands of permits.

Even if they are seeking to see that they are exempt, I think that is part of the arbitrariness built into certain of our laws. That if you can't administer it, it is prone to be arbitrary and is the worst kind of law that you can pass.

Because that leaves an administrator free to pick and choose in many instances, even in the regulatory process. I don't like that and I don't think we intended that.

I am not sure you wanted that when you chose to challenge the Corps' original concept of what it had jurisdiction over under section 404.

Mr. SPETH. Senator, let me respond to that briefly. I think that the Cleveland-Harsha amendment, which has been introduced in the Senate by Senator Hart, codifies those very exceptions which you find to be very important.

I think it is important, if there is any doubt or concern that the Corps might backtrack on those, to get them codified. It also takes care of Senator Burdick's problems associated with trapping the runoff from the mountains, because the third one of those exceptions would apply for the purpose of construction or maintenance of farmer stock ponds and maintenance of drainage ditches.

Senator DOMENICI. Does it provide for delegations to the States?

Mr. SPETH. The Cleveland-Harsha bill does not, but we would support a program modeled on what this committee has already done in section 402 to delegate the program to the qualifying States.

I think if you take into account general permits which can cover thousands and thousands—and there are already, as I say, 21 general permits that were issued by July 1 of this year and 40 or 50 more general permits are under development—and if you have Cleveland-Harsha, if you have a delegation, and reasonable administration, then I think these problems are going to go away.

You can dream up a chamber of horrors under section 402 of the act. I have been informed that this committee speculated about such things in some of the executive sessions when they were developing the original act.

Under section 402, literally, a fisherman would have to have a permit if he dumped his bait overboard, or if he threw a coke bottle in the lake. Anything like that is technically and literally a point source discharge, and you should have a permit from EPA.

But nobody carries these things to that extreme. The sole basis of the current situation is that the corps carried it to the extreme in this case and put out that press release which has so aroused everybody in the country and gotten in all your mail. It is just irrational.

I think the committee has obviously, it seems to me, got to do something. But I respectfully suggest that you appreciate that if it hadn't been for the original distortions, as Senator Muskie pointed out last night, we wouldn't be here.

Senator RANDOLPH. I am not sure about that, Mr. Speth. I remind you that this committee, in a regulatory way, moved on the improvement of water quality in 1965. Do you recall that?

Mr. SPETH. Yes.

Senator RANDOLPH. We did it in 1968 in the amendments to the original act. We did it again in 1970. We did it again in 1972. So the record of the committee is one of keeping current with the problems as they are presented, trying not to act after the fact, but before the fact.

I am not being critical, but I do think the record will show that we continue to keep very close to these developments. That is the reason I mentioned the past activity. Do you have any comments, Senator Burdick?

Senator BURDICK. Yes. Thank you, Mr. Chairman.

I got the impression from your testimony that all our river systems all involve wetlands. They don't all involve wetlands. You are aware of that? As a matter of fact, many of our western rivers at certain times of the year are dry lands. The rivers are dry and the reason we have impoundments is that we want to conserve water which is done under careful regulation and with soil conservation help, and so forth. So when you use the words interchangeably, "wetlands and drainage areas," they are two different things. We have wetlands in North Dakota and some good ones, good propagation areas for wildlife.

What bothers me is the mechanics of getting permits. I am glad to hear you say that you wouldn't mind having some of this delegated to the States so you don't have a dual operation here all the time. But this bureaucratic permit system is something to live with. You know the problems we have had getting EPA clearance. I was working 10 years on a eutrophicated lake completely polluted and tried to get some action. I had been 10 years at it, going from administration to administration and bureau to bureau.

I was almost frustrated. What do you have to suggest to the farmer who wants to impound some of that water that he won't have 2 months from now without going through all this terrible redtape?

Mr. SPETH. Three things, Senator. First, pass the Cleveland-Harsha amendment. Get that problem behind us. I think those problems needn't arise.

Second, if we are talking about substantial activities that really do pose a threat, take it up under the permit problem. If it doesn't pose a threat, it will wash out in some type of general permit.

Senator BURDICK. But you don't understand. Even with these exempt ponds that are concerned, you still have to have a permit.

Mr. SPETH. No, sir.

Senator BURDICK. You have to have a permit denied.

Mr. SPETH. No, sir, you don't. There will be no reason. That has come up last night and tonight. I don't think there would be any reason if an activity is covered by a general permit for that person to ever apply. It certainly should not be.

Senator BURDICK. It should not be?

Mr. SPETH. I don't think the corps' regulations require it now.

Senator BURDICK. But how does the corps determine whether there is 5 acres or not until you see the record?

Mr. SPETH. I think, Senator, if a person—this has come up before—is going to build a structure which is going to be close to 5 acres, and sometime in the year it is going to be 5 acres or something like this, unless the corps administers the program in a really draconian way and tries to extract the last ounce, they are going to have too many big problems to handle to worry about these insignificant activities.

Senator BURDICK. If you and I have some time, I would like to show you the history I have had for 10 years on this lake issue. You know there is going to be some difference in getting the permits. It is one of the facts of life around here.

Mr. SPETH. EPA and the corps certainly should handle these permits on an expedited basis. I agree there has been too much foot-dragging in getting permits out. It has happened under section 402 as well. One problem is EPA needs more resources. I will put in a plug for them. I have done it in a couple of hearings Senator Muskie has had on this same subject.

Senator BURDICK. Whatever you do, I hope we don't have two layers of administration, for goodness sakes.

Senator RANDOLPH. Mr. Callison.

Mr. CALLISON. Mr. Chairman, I merely wanted to suggest—and I do this out of considerable personal experience with farm pond programs in this county. It goes back to the time when I was with the Missouri State Conservation Department and that department actively promoted the construction of farm ponds, stock-water ponds. I have been in Senator Burdick's State. I have seen the potholes and marshes in his State, most of which are natural waters and not artificially constructed ponds. But fewer than 5 percent of the created stock-water ponds in this country are as large as 5 acres.

They are nearly all smaller than that. I would even dare to suggest that fewer than 2 percent of them are 5 acres or more.

Senator BURDICK. But you missed my point. In order to determine that they are 2 acres, there has to be an application to determine that.

Mr. CALLISON. I believe Mr. Speth is correct about that, that the regulations would be so written that small ponds would be exempted in a general way. Nobody is going to go out and——

Senator BURDICK. I am a bureaucrat. I won't know whether it is 2 acres or not until I find out.

Mr. CALLISON. You will have to beat our friends in the Corps of Engineers over the head about that if they are so irrational. I don't think they are.

Senator DOMENICI. Could I ask the two witnesses who have testified to discuss this with me? I don't know if these facts are correct, but in preparing for this, I have a summary of some of the ecological issues. I have a statement that reads like this, "Prior to 1950, 57 of the Nation's 127 million acres of wetlands have been lost." I don't know if we got that from you or the Audubon Society or whom. I am not going to buy that statement for a moment.

"This leaves about 70 million acres. About 300,000 acres are lost per year."

Then the memo proceeds to talk about the asset value of wetlands. Incidentally, we had a superb presentation of that from the administration through Russell Train last night on the importance of wetland preservation in not only the ecological system, but more specifically talking about clean water, which is the subject of the act.

The gentleman representing the forest industry put a map up here. I don't know why he chose Georgia, but he did. He said that under the present definition of wetlands in that State and the Southern States, there were what number?

Mr. MCCREDIE. In the Southern States, sir, there are about 33 million acres.

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Senator DOMENICI. 33,000,000. How many are there in the United States under the definition that we are using under section 404 now?

Mr. MCCREDIE. I do not know that number. All I know, Senator, is that there are approximately 100 million acres of forestlands that now have excess water problems. That is the only definition that we have identified.

Senator DOMENICI. I would like the two of you to tell me, first, is the summary that my staff gave me about wetlands and their disappearance accurate? Is this more or less an acceptable statement?

Mr. SPETH. Senator, I think the Wildlife Federation, represented by Lou Clapper, hasn't presented his testimony. They were going to focus on that. The answer to your question is "Yes."

Senator DOMENICI. I have to go very shortly, so let's talk a bit.

Mr. SPETH. I think the basis for those figures is the Fish and Wildlife Service of the Department of the Interior.

Mr. CALLISON. Those figures come out of extensive studies, not once, but more than one time by the U.S. Fish and Wildlife Service in cooperation with the State wildlife agencies who contributed to the study.

The gentleman who represents the timber industry, I think, is doing the same thing that some people, assuming to speak for the farmers, have done. That is, they are exaggerating. He is greatly exaggerating the problem in order to try to frighten somebody about it.

Senator DOMENICI. We are not going to perhaps pass judgment on that, about who is frightening whom.

Mr. CALLISON. I am giving you my opinion about it.

Senator DOMENICI. Let me ask you this, are the wetlands which I just described in this statement—which you say comes from some official arm of the Federal Government—are those the wetlands we are trying to protect? Either of you or any of you can answer.

Mr. SPETH. Yes.

Senator DOMENICI. Is the corps defining as wetlands, subject to their protective jurisdiction under section 404, talking about those wetlands that we have just described or those plus others?

Mr. SPETH. I think they are talking about most of those that have just been described. The wetlands that are covered by the corps' regulations are those that are contiguous or adjacent to streams or large lakes.

Senator DOMENICI. That map, just of Georgia, showed wetlands defined and they weren't near major streams or lakes; yet they are telling us they have been defined as wetlands.

My question is; Is that what we are trying to protect under section 404, or are we trying to protect the remaining 70 million acres that have been defined by the Federal Government?

Mr. SPETH. I think we are trying to protect the wetland areas which are defined by the Department of the Interior as well.

Senator DOMENICI. Then what jurisdiction does the corps have under section 404 to go beyond that?

Mr. SPETH. I am not sure that it has. I don't think it has. I think the Corps' definition basically covers those. I would be very surprised if it went beyond them.

Senator DOMENICI. Would the forest people comment on that? I am through with this question because now I am totally confused.

Mr. McCredie. This whole subject, the definition of wetlands, is a very confusing subject. Various Federal agencies and various State agencies have different definitions. The definition that the Corps has now come up with is a totally new version and we do not know how many acres can come under it.

We believe, because of the definitions, that there are many productive forestlands, as well as agricultural lands, that would fall into this classification. We cannot specifically know that until the Corps further develops this very imprecise and vague definition of wetlands that they have in their regulations.

Mr. Speth. Senator, we would dissent on the characterization of those definitions as vague. I think if you look at the testimony that Assistant Secretary Reed submitted last evening, you will see discussion of the types of wetlands that are excluded by the Wright amendment. It reflects the concern he has for those wetland areas.

I think if we turned to the Department of the Interior for a definition of wetland areas that are protected by this, we will find that that is the most consistent correlation we can get with the Corps' definition.

Senator Domenici. Under section 404, the protection of wetlands is certainly covered and the words "dredge and fill" are used. Do both words, "dredge and fill," apply to the wetland that you are describing to me or does one or the other word apply beyond the wetlands that we are talking about?

Mr. Speth. They both apply, Senator. You could dredge material out of the little creek that the kepone plant is on in Hopewell and dredge that creek in front of that plant and dump that highly polluted dredge material in a wetland area and it would have a very serious effect on the fish, including the oceangoing fish that come up there to spawn.

Senator Domenici. But my point is that that would then come within the statute that says fill, and it would be filling wetlands as you and I have just described. Is that correct?

Mr. Speth. Under the Corps' definition, it would be the discharge of dredged material rather than the filled. Fill would be a discharge for the purpose of destroying the wetlands, basically creating high land.

Senator Domenici. The point I am getting at is there is no broader use of the words "dredge and fill" than their application to wetlands as defined. Is that correct, or is it not?

Mr. Speth. You could discharge dredged material into the open waters, and certainly that is one of the main focuses of the section 404 program, to regulate the discharge of dredged material in the open waters.

Senator Domenici. All right, but that is yet an understandable term. The open waters, as compared with the broad definition of navigable waters. Why is it that we can't use an official definition of wetlands, since you tell us that it exists? If it is 70 million acres, somebody must locate the acres somewhere. Why can't we define wetlands as per something that is official and say that is one of the goals of that particular section you are talking about?

Mr. Speth. We certainly could. I think the Department of the Interior has done that in something called the Wetlands Circular No. 39. I think it is No. 39.

Mr. McCredie. No. 39 is correct.

Senator DOMENICI. Does the forest industry understand that the defined wetlands by the Department of the Interior is the kind of lands you are worried about on your map, which are the wetlands as defined by them?

Mr. MCCREDIE. No, sir, not all of those types. There are many breakdowns of different types of wetlands identified.

Senator DOMENICI. Where?

Mr. MCCREDIE. In the Department of the Interior Circular No. 39. What we are really concerned about is the definition that the corps has promoted, which completely leaves us with an unknown as to what it includes; but it includes lands that are periodically inundated and that are characterized by vegetation which requires saturated soil conditions.

These are the only two conditions that define wetlands.

Senator DOMENICI. Let me start over and I promise, Mr. Chairman, this is my last question. You heard the witnesses respond positively to my description of the number of acres of wetlands in the United States and what was happening to them, and that they accepted those figures as official Department of the Interior figures.

I am asking you, are you familiar with these officially designated wetlands that we are talking about?

Mr. MCCREDIE. No, sir, I am not familiar enough to make a response to whether that would solve our problem or not.

Senator DOMENICI. I don't know that it would solve any problem. I just want to try to get to a point where there is something called wetlands, to see if you would agree there are wetlands.

Mr. CALLISON. Mr. Chairman, may I offer a suggestion?

Senator RANDOLPH. Yes, Mr. Callison.

Mr. CALLISON. Senator Domenici, I am reminded by my friend and colleague in this work, Dr. Laurence Jahn, who is sitting right here, that the wetlands that we are referring to and the Department of the Interior has referred to are defined precisely in circular 39 of the Department of the Interior, which has been used by reference in several acts of Congress, including the Appropriations Act for the Department of Agriculture.

So I think that might be quite helpful to you. This is the definition of the wetlands that comprises the acreage that you quoted a while ago.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator RANDOLPH. Thank you, Senator.

[Mr. Speth's prepared statement follows:]

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STATEMENT OF GUS SPETH ON BEHALF OF
THE NATURAL RESOURCES DEFENSE COUNCIL AND
OTHER ORGANIZATIONS BEFORE THE
SENATE COMMITTEE ON PUBLIC WORKS
AT HEARINGS ON THE IMPLEMENTATION OF THE
SECTION 404 PERMIT PROGRAM,
JULY 28, 1976

Mr. Chairman, members of the Committee, I am pleased to be here today to speak with you about an issue of great importance to the Nation and to the future success of the 1972 Federal Water Pollution Control Act. I have reference, of course, to the permit program established by Section 404 of that Act to regulate the discharge of dredged or fill materials into the country's waters.

The Section 404 program protects against two types of discharges which are among the most serious threats today to the chemical, physical and biological integrity of the Nation's waters: first, discharges of dredged spoil which are frequently contaminated with heavy metals such as mercury and cadmium and chlorinated hydrocarbons such as PCB's and kepone and, second, discharges of fill

materials which can result in the destruction of irreplacable wetlands -- the most valuable and productive part of the aquatic environment. The amendment to Section 404 recently passed by the House of Representatives, referred to as the Wright Amendment, would allow these discharges to occur without permits or regulation in the great majority of the country's waterways. It would leave unprotected most of the country's stream miles, most of the country's wetlands and indirectly all the down stream waters that depend on these streams and wetlands. The Wright Amendment would thus create a glaring loophole in the 1972 Act. It would undermine the Act's integrity and would render its goals unachievable.

The Section 404 program has become highly politicized during the past year. It has been the victim of tremendous misunderstanding and the source of needless concern, of which the House's action is the latest manifestation. We are unfortunately still living with the poisoned atmosphere created by the Corps of Engineers' press release of May 6, 1975. Among other misstatements, that release said that federal permits may be required by the farmer "who wants to deepen an irrigation ditch or plow a field." Senator Muskie, upon reading this release, demanded that it be retracted. Over a year ago he stated on the floor of the Senate:

> "The Corps, in what appears to be a deliberate attempt to distort Federal water pollution policy for purposes which I do not understand, publicly announced that a court decision which upheld the intent of Congress as regards the meaning of navigable waters would have the effect of placing thousands of farmers in violation of Federal law. Nothing could be further from the truth and the Corps knows it. . . .
>
> "I only hope that this matter can now be ended and we can get on with the job of regulating the discharge of dredge or fill materials in such a manner as to protect both the nation's wetlands and the quality of all the nation's waters."

EPA Administrator Train, many members of Congress and others joined with Senator Muskie in expressing these views. If only Senator's Muskie's advice had been followed. Unfortunately it was not. The Corps' alarmist and unsupportable claims were repeated and even further exaggerated in countless government news releases and agricultural and forestry newsletters and articles. Long after the Corps to its credit had put together and begun to implement a workable and reasonable program, the distortions referred to by Senator Muskie were perpetuated by certain groups with narrow commercial interests in need of a broader political base to achieve their objectives, one of which appears to be to escape all regulation under this Act.

In the remaining time that I have I would like to make three points central to this issue. The first is that the Section 404 program now in the present Corps regulations is an accurate reflection of the 1972 Act and its history and is a reasonable and workable program. The second is that the success of this Section 404 program is essential to the success of the Act. And the third is that certain limited action by the Senate, such as the amendment suggested by Senator Hart, may be necessary to clear the air and put to rest the unwarranted but understandable fears of many persons.

1.

One argument sometimes made by opponents of the Section 404 program is that the courts are responsible for extending the program beyond Congress' intent. This is not true. Take the question of whether the 1972 Act and the Section 404 program were meant to extend beyond traditionally defined "navigable waters." I am aware

of not one but ten court decisions holding that a much broader jurisdiction was intended, and the Environmental Protection Agency and the Department of Justice have consistently supported this view. The reason for this essentially unanimous position is the clarity of the 1972 Act's language and history on this point. Section 502(7) defines "navigable waters" as used in the Act to include all "waters of the United States," and the Conference Report states that:

> "The conferees fully intend that the term 'navigable waters' be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes." Conference Report, at 144.

As Congressman Harsha noted in the House debate on the Wright Amendment:

> "The courts did not adjudicate a new definition of navigable waters. . . . The Court has upheld our position on that. It did not redefine navigable waters." Congressional Record H5273, June 1, 1976.

All that the District Court did in NRDC & NWF v. Callaway, 392 F.Supp.685 (D.D.C. 1975), was to require the Corps of Engineers to regulate the discharge of the two types of pollutants assigned to it in the same areas that EPA regulates other pollutants.

Similarly, there is no serious doubt that the wetlands associated with our estuaries and streams are part of "the waters of the United States." Certain wetlands, for example, coastal wetlands below mean high tide, have always been included in the traditional definition of navigable waters. When the 1972 Act abandoned the artificial limitations of the navigation servitude, that abandonment not only extended the Act's jurisdiction upstream to non-navigable waters but also laterally into the wetlands that

are an integral and inseparable part of the aquatic ecosystem.*/ Otherwise, for example, an industrial polluter could escape regulation under Section 404 merely by dumping its wastes into a marsh or other wetland instead of into the stream itself.

Most fundamentally, the basic goals of the Act in Section 101 -- protecting the chemical, physical and biological integrity of the Nation's waters and providing an aquatic environment for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water -- could not even be approximated if wetlands were artificially segmented off and excluded from the protected "waters of the United States." The House Report states that the "integrity" goal in Section 101 is intended to refer "to a condition in which the natural structure and function of ecosystems is maintained." (House Report at 76.) Wetlands are the most vital and productive part of the aquatic ecosystem, and we could never make much progress towards protecting that ecosystem and the integrity of the Nation's waters if wetlands were unprotected. Consider the following:

- Fully two-thirds of the annual U.S. harvest of fish and shellfish can be traced back to wetlands.
- Ducks, other waterfowl and numerous other wildlife species are almost completely dependent upon wetlands for nesting and feeding habitat.

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*/ Prior to the court's ruling in NRDC & NWF v. Callaway the House Government Operations Committee was calling upon the Corps to abandon its narrow view of Section 404's jurisdiction and to use that provision "to protect additional wetlands from the damaging effects of dredging and filling." H.R. Rep. No. 93-1396, 93rd Cong., 2d Sess. (1974), at 14-27.

- The pollutant removal, water cleansing properties of wetlands are enormous. A 500 acre wetland has been shown to assimilate tons of phosphates, nitrates, animal wastes, sediment and other pollutants on a daily basis while enriching the surrounding waters with oxygen. The wetland is the farmer's pollution control plant. Runoff from agricultural areas is already a serious pollution problem and will become proportionally more important as controls on other pollution sources are implemented. Without wetlands to act as natural filters, agricultural pollution of downstream areas, including drinking water supplies, would be far more severe.

If wetlands were not within the Act's jurisdiction, we could easily find ourselves a decade hence having spent billions on controlling industrial and municipal discharges but with an aquatic environment more impoverished than today's.

This Committee recognized the importance of full protection of the aquatic environment when it observed in its report on the Act that:

> "Water moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source. Therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries." (Senate Report at 77; emphasis added.)

Finally, we would also note that there has never been any serious question that Section 404 reached the discharge of fill material. The phrase "or fill material" is in Section 404 itself, but its origins go back as far as the Senate Report. The Senate bill had the Administrator of the Environmental Protection Agency regulating the discharge of all pollutants, including dredged and fill material. In describing EPA's responsibilities, this Committee's report states:

> "In establishing the levels of best practicable and best available technology for point sources the Administrator should not ignore discharges resulting from point sources other than pipelines or similar conduits. For instance, the Administrator must give proper attention to the control of dredged spoil disposal and fill operations . . ." (Senate Report at 51; emphasis added.)

For all these reasons, the Corps was certainly correct when it established a Section 404 permit program which covered both navigable waters and their tributaries, included wetlands and regulated discharges of both fill materials and dredged spoil. Yet the Corps took special precautions in its July 25, 1975, regulations to ensure that its program did not extend to areas where it did not belong, that it did not become mired in the processing of innumerable individual permits for trivial matters and that it cooperated fully with state and local authorities and programs. The Corps regulations provide:

- that "normal farming, silviculture and ranching activities, such as plowing, cultivating, seeding and harvesting" will not be covered;
- that fills for the purpose of the maintenance of existing structures such as dikes, dams,

highways, etc., will not be covered;

- that only point source discharges will be covered and non-point sources excluded;
- that general permits applying to many dischargers can be used to reduce red tape and delay where activities have a minimal environmental impact;
- and that joint processing and other cooperative steps can be followed where a state is operating a permit program for similar activities.

We believe that the program set out in the Corps' July 25 regulations is reasonable, is not overregulatory and deserves broad support and acceptance. It has our support and acceptance. The experience with the program over the past year bears out these conclusions. No one -- not the Corps, EPA, the environmental community or the public -- no one wants to see the Corps wasting its time on trivial discharges. We can assure this Committee that if the Corps should ever become overzealous and begin to get involved in activities outside the 404 program, or which have no significant environmental effect, then we will join with the other members of this panel in opposing the Corps' action. Until then, though, the Corps and EPA should be left to run the program as it is now constituted, especially if the alternative course is to cripple the program as the Wright Amendment would do.

The attack on the Section 404 program is nothing less than an attack on the integrity of the 1972 Act. The Wright Amendment would allow the discharge of both dredged spoil and fill materials to go unregulated in most U.S. streams and rivers. It would jeopardize about three-fourths of all U.S. wetlands. The Fish and Wildlife Service has concluded that the Wright Amendment could leave even the largest swamps and fresh water marshes such as the Okeefenokee and the Everglades unprotected. The consequences would be extremely serious.

- Wetlands are not only among our most valued resource; they are among our most threatened. Already half of America's wetlands have been destroyed. And we are still losing our wetlands at a rate of over 200,000 acres a year.
- As the statement submitted by the Environmental Defense Fund documents, sediments dredged from the bottoms of our streams and rivers are increasingly found to be contaminated with toxic and cancer-causing materials. One example is the presence of cancer-causing PCB's in Antietam Creek in Maryland, a non-navigable tributary upstream of Washington's water supply intakes. Millions of cubic yards of dredged materials must be disposed of each year in the U.S. Under the Wright Amendment, it could be dumped into any waters other than those that

are used or could be used for navigation.

- Under the Wright Amendment, with the great majority of our water areas unprotected, dischargers would be free to dump into these areas anything they can get away with calling "fill." If a chemical company has some severely contaminated soil it has to get rid of, buy some wetland acreage and dump it in as "fill." No permit required.

The Wright Amendment would also authorize the inclusion of any type of discharge, no matter how serious, under a general permit. Environmental groups support the concept of the general permit in the Section 404 program. However, the general permit should not be allowed for environmentally damaging discharges. A loose, vague, and criteria-free general permit authority invites administrative and legal challenges which would create confusion and delay.

The Wright Amendment would also allow delegation of the permit program to the states, but again without any criteria for program adequacy such as those established in Section 402. Without criteria in law, the Corps must establish them by administrative rulemaking. Sound criteria such as those this Committee wrote into Section 402 are needed to give an interested state a stationary target, to prevent delegation to an inadequate state program, and to preserve national uniformity in order to protect those states which do come forward with good programs. Program uniformity in Section 404 is even more important than in Section 402, because Section 404 lacks nationally uniform discharge standards for invividual permits.

Finally, the Wright Amendment exempts many federally authorized or assisted projects from Section 404 requirements. We do not for one minute believe that the Corps has the authority to use Section 404 to veto projects which Congress has authorized. On the other hand, it seems equally clear that the 404 process has a useful role to play in the planning of these projects.

Defenders of the Wright Amendment point to the fact that it does at least attempt to protect the small portion of our wetlands associated with traditionally navigable waters. There are at least four flaws in even this limited claim:

(1) The Wright Amendment defines "adjacent wetlands" as something distinct from "navigable waters." Yet under other provisions of the 1972 Act, which are essential to make Section 404 work, e.g., Section 301, it is only "navigable waters" that are protected. So "adjacent wetlands" are probably not protected at all by the Wright Amendment.

(2) The language of the Wright Amendment excludes the historical test of navigability. The result is that many waters which are covered by the traditional test of navigability are not protected under the Wright Amendment.

(3) Under the Wright Amendment, the wetlands aspects of the Section 404 program can be delegated to the states without any statutory restraints or criteria. Yet the vast majority of states are unprepared at present to handle the Section 404 program. It is noteworthy that a recent study by

the Interstate Commission on Water Pollution indicates that of the states which would seek to administer the Section 404 program only six met certain threshold tests of program adequacy.

(4) Finally, it is a delusion to believe that our fragile coastal ecology can be protected while the upstream areas on which it depends are smothered and poisoned by unregulated discharges. Fish do not respect the boundaries of navigation any more than pollution does. Small streams, for example, are vital spawning areas for many fish, including salmon, trout, shad, and a host of others.

There is much more that could be said about the House bill. It creates legal contradictions within the Act which will undoubtedly lead to protracted litigation. It is a classic example of what can happen with hasty, eleventh hour drafting of amendments to a complex and highly articulated statute like the Water Act. The Wright Amendment became available only a few hours before the vote in the House. We would urge this Committee to take plenty of time to examine all aspects of this amendment before acting.

3.

In conclusion, our belief is that there is no real justification for amending the 1972 Act. In the House, we supported the Cleveland-Harsha Amendment with the objective of arriving at a compromise that could clear the air and resolve these issues once and for all. We would do the same for the Hart Amendment in the Senate if that objective could be achieved. We worked closely with

the Corps and EPA to help develop a reasonable Section 404 program. We are certainly prepared, indeed eager, to work with this Committee to preserve that program. One matter which we believe should be considered in the coming session is the possibility of establishing in Section 404 a provision analogous to that now in Section 402 of the Act allowing the permitting authority to be assumed by qualifying states.

Thank you for this opportunity.

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MATERIALS SUBMITTED FOR HEARING RECORD

APPENDIX TO TESTIMONY OF GUS SPETH, NATURAL RESOURCES DEFENSE COUNCIL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 1 5 1974

THE ADMINISTRATOR

Dear General Gribble:

As you are undoubtedly aware, on March 15, 1974, the U.S. District Court for the Middle District of Florida issued a Memorandum Opinion in United States v. Holland. In that case, the United States sought to enjoin disposal without a permit of dredged material in wetlands which were above the mean high water line but were periodically inundated by tidal waters. The court held, inter alia, that wetlands above the mean high water line are subject to Federal jurisdiction under Section 404 of the Federal Water Pollution Control Act, as amended (the "FWPCA") and that discharges of dredged material into such areas "constituted discharges entering 'waters of the United States'."

The result reached in U.S. v. Holland is a jurisdictional milestone under the FWPCA. Wetlands above, and below, the mean high water line are of vital importance to our environment. The Corps has taken an admirably firm position to protect wetlands below the mean high water line. Recently issued Corps regulations stated that: "As environmentally vital areas, [wetlands] constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest." 33 CFR Section 209.120(g)(3). Our concern is that similar protections be provided for wetlands above the mean high water line.

We believe that the Holland decision provides a necessary step for the preservation of our limited wetland resources. Moreover, we are firmly convinced that the court properly interpreted the jurisdiction granted under the FWPCA and Congressional power to make such a grant.

Notwithstanding the decision in U.S. v. Holland and the recognized importance of wetlands to the environment, we have been informed that the Corps has declined to acquiesce in the Holland decision and has advised Corps installations not to accept applications for permits under FWPCA Section 404 for dredge and fill disposal in these areas. The Department of Justice has taken the position that it will not bring enforcement action against persons disposing of dredged or fill material in wetland areas without Section 404 permits so long as the Corps refuses to issue such permits. As a consequence, wetland areas above the mean high water line are presently unprotected from the irreparable damage caused by the disposal of dredged and fill materials.

So that this important and irreplaceable part of the environment will not go unregulated, I strongly urge the Corps of Engineers to reconsider its position and to commence processing Section 404 permits for wetlands above the mean high water line immediately. I would appreciate the opportunity to discuss this matter with you at your earliest convenience.

A separate but related matter also requires attention. On April 3, 1974, the Corps of Engineers promulgated final regulations with respect to Corps permits for various activities in navigable or ocean waters. 39 Federal Register 12115. Among other things, these regulations set forth certain procedures for the issuance of permits for the disposal of dredged or fill material under Section 404 of the FWPCA.

Of particular concern to the Environmental Protection Agency is the definition of "navigable waters" set forth in these regulations, 33 CFR Section 209.120(d)(1). In proposed regulations published on May 10, 1973 (38 Federal Register 12217), the Corps proposed to define the term "navigable waters" to mean "waters of the United States, including the territorial sea," in accordance with the definition of "navigable waters" in the FWPCA. The final regulations promulgated on April 3, 1974, deleted the previous definition of "navigable waters" and substituted therefor the following:

> "The term 'navigable waters of the United States' and 'navigable waters,' as used herein mean those waters of the United States which are subject to the ebb and flow of the tide, and/or are presently or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce (See 33 CFR 209.260 for a more complete definition of these terms)."

The preamble to the final regulation discusses the Corps' reasons for changing the definition and makes it clear that the term "navigable waters of the United States" as used in the Rivers and Harbors Act of 1899 and the term "navigable waters" as defined in the FWPCA are to be "treated synonymously." The preamble and the reference to the Corps' definitional regulation at 33 CFR 209.260 make it clear that the Corps intends to delineate FWPCA Section 404 jurisdiction on the basis of court decisions and Corps interpretations of "navigability." Our interpretation of "navigable waters" within the meaning of the FWPCA does not conform to the Corps' recently issued regulation. We firmly believe that the Conference Committee delected "navigable" from the FWPCA definition of "navigable waters" in order to free pollution control from jurisdictional restrictions based on "navigability." Indeed, as the Conference Report

states with respect to the modified definition of "navigable waters": "The conferees fully intend that the term 'navigable waters' be given t broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes." S. Rep. 92-1236, 92d Cong., 2d Sess. at 144. Perhaps a meeting of the appropriate personnel of the Corps and of EPA should be scheduled to resolve these discrepancies.

Sincerely yours,

/s/ John Quarles

Russell E. Train
Administrator

Lt. General W. C. Gribble, Jr.
Chief, Corps of Engineers
DAEN-ZA
Forrestal Building
Washington, D. C. 20314

Prepared by:
AGDW:JHoward:ncd:6/4/74:50760:Rm.509

August 16, 1974

Manning E. Seltzer, Esquire
Office of General Counsel
U.S. Army Corps of Engineers
Department of the Army
Washington, D.C. 20310

jlp

Dear Manny:

I am very concerned over the apparent inability of the Environmental Protection Agency and the Corps of Engineers to agree on the guidelines required by section 404 of the Federal Water Pollution Control Act of 1972 for use in issuing permits under that section. Without the guidelines, the Corps of Engineers is unable to exercise its full regulatory authority over dredge and fill activities and the Department of Justice is severely hampered in its ability to bring enforcement actions to require compliance with section 404.

It is my impression that a major obstacle to the promulgation of these guidelines has been the disagreement between the Corps of Engineers and the Environmental Protection Agency over the boundaries of regulatory jurisdiction provided by the Federal Water Pollution Control Act, and this disagreement has been highlighted by Administrator Train's letter of June 4, 1974, to General Cribble. In the hope of bringing about a speedy resolution of this disagreement, let me state our Department's position on this matter.

Prior to the enactment of the Federal Water Pollution Act in 1972, the Corps of Engineers exercised control over the Nation's waters primarily through the Rivers and Harbors Act of 1899, and primarily for the purpose of protecting and improving

their navigable capacity. Numerous court decisions have held that the Corps' jurisdiction under the Rivers and Harbors Act extended only to the line of mean high water, or, in littoral areas, to the line of mean high tide. Although regulation up to this point may be sufficient to protect navigation, it is clearly inadequate to achieve the objective of the Federal Water Pollution Control Act, which is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. §101, FWPCA.

To achieve this environmental objective the Act exercises regulatory jurisdiction beyond the line of mean high water or the line of mean high tide, which lines, by definition, are not the outer limits of the area subject to the regime of the waters, but are only an intermediate limit. Section 301 prohibits the discharge of any pollutant, including dredge spoil, sand, and biological materials, except as in compliance with several other sections, including section 404. Section 404 vests the Secretary of the Army, acting through the Chief of engineers, with the authority to issue permits for the discharge of dredged or fill material into navigable waters at specified disposal sites. The term navigable waters is defined by section 502(7) as waters of the United States, including the territorial seas.

The legislative history of the Act shows that Congress did not intend to limit the government's jurisdiction for environmental protective purposes to the same line of mean high water which limits the Corps' jurisdiction for navigational protective purposes, and in fact, the Federal courts thus far have held that the Federal Water Pollution Control Act authorizes the exercise of jurisdiction over water for water quality purposes landward of the line of mean high water: United States v. Holland, 373 F. Supp. 665 (M.D. Fla., 1974); United States v. Ashland Oil and Transportation Co., 364 F. Supp. 349 (W.D. Ky., 1973).

We recognize that there are technical problems in establishing a formula to delineate Federal jurisdiction under section 404. Nevertheless, we feel that by consulting with appropriate scientists and other experts, the obstacles can be surmounted. An approach that we believe has particular merit is defining jurisdiction in terms of those areas containing biota dependent on the regular inundation of waters other than rainwater.

On July 18, 1974, the Attorney General reaffirmed the Justice Department's commitment to vigorous enforcement of the laws protecting wetlands. Citing wetlands cases as a top priority of the Land and Natural Resources Division, Mr. Saxbe enumerated the invaluable functions served by wetlands. For almost two years the Federal Government has failed to exercise its authority to regulate the entirety of these critical areas that form a biologically interdependent whole. We urge you to assign high priority to reaching an agreement on the section 404 guidelines that will provide for the protection of the entire ecosystems dependent upon unpolluted and undisturbed waters, rather than just that part arbitrarily delineated by mean high water.

Sincerely,

Wallace H. Johnson
Assistant Attorney General

cc: Alan G. Kirk, II, Esquire
Assistant Administrator for
Enforcement and General Counsel
Environmental Protection Agency
Fourth and M Streets, S.W.
Washington, D.C. 20460

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

16 MAY 1975

THE ADMINISTRATOR

Dear General Gribble:

It is becoming increasingly apparent that the recently proposed regulations and guidelines published by the Corps of Engineers and EPA governing the implementation of section 404 of the Federal Water Pollution Control Act are being misunderstood by the public and by Congress. Most of this confusion and misunderstanding is directly attributable to the seriously inaccurate and misleading press release issued by the Corps at the time the regulations were published. Because of the extreme importance of section 404 as the primary mechanism to protect America's valuable wetland resources, I consider it imperative that the Corps of Engineers take steps to remedy these impressions.

We are particularly concerned that the false impression that farmers must obtain permits whenever they plow a field be corrected. Since this was clearly not contemplated by either the Corps or EPA and is not required by the statute, we fail to understand how such a statement could appear in this press release. As you are well aware, the primary concern of section 404 is to address situations where dredged or fill material is discharged into wetland areas. By no stretch of the imagination can the simple act of plowing be considered to fall within that category.

The Corps has also stated to the public that "millions of people may be presently violating the law." Obviously, there are some discharges of dredged or fill material presently occurring which are not regulated due to the Corps' present restrictive definition. Such discharges should and would be regulated under a broader approach. To say, however, that this number approaches millions is totally without basis.

The illustrations contained in the press release have led to EPA receiving numerous inquiries about the types of activities covered by the program. The confusion about its applicability is apparent. For example, it has been suggested that section 404

applies to any area where there is a body of water which has the potential of flooding and that a rice farmer is violating the law if he puts any acreage into cultivation without a permit. Clearly this is not true. While there may be some rice growing operations which are located in wetland areas and which may involve the discharge of fill material for the building of dikes, it is unreasonable to assume that all rice operations fall within this category. Merely because an agricultural operation involves water does not mean that it is subject to section 404. As we indicated in our preamble to our guidelines, we believe that regulations can be developed which will provide effective administration of a permit program within the broader definition of "navigable waters", without involving the extreme and unwarranted extensions of federal jurisdiction mentioned in your letter.

Both EPA and the Corps have issued policy statements recognizing the need to protect wetland areas. It would be unfortunate indeed if, on the basis of these recent misconceptions, legislative changes were made to return the statutory definition of jurisdiction to traditional concepts of navigability. Such a change would leave vast areas of valuable wetlands without the protection of this regulatory mechanism and possibly subject them to uncontrolled development.

I strongly urge the Corps of Engineers to work with us in the development of our section 404 program within the spirit of the Federal Water Pollution Control Act and to take immediate action to correct the misunderstandings which your department's public statements have created.

Sincerely yours,

Russell E. Train

Lt. Gen. William C. Gribble, Jr.
Chief of Engineers
Room 4A-245
1000 Independence Avenue
Washington, D. C. 20314

THE NEW YORK TIMES

June 16, 1975

True to the Corps

The Army Corps of Engineers has cooked up a scheme to evade a provision of law that it doesn't like by reducing a court order to such absurdity that it hopes thereby to force a change in the law. The strategy should be as unsuccessful as it is unconscionable.

Until this year, the Corps—which has always been more interested in building projects than in preserving the environment—narrowly interpreted its function of controlling dredging and filling operations affecting the country's waterways. However, in the Water Pollution Control Act of 1972, Congress had made it clear that the Corps' protective program was to apply not only to "navigable" waters, as heretofore, but also to the country's lakes, streams, rivers and wetlands as well. The Corps chose to ignore that extremely significant change in wording from previous law, continuing to confine its attentions to navigable waters only, to the grave detriment of tributaries and wetlands.

The upshot of a suit brought by the Natural Resources Defense Council and the National Wildlife Federation was a United States District Court decision three months ago that Congress meant just what it said, whereupon the Corps deliberately proceeded to stretch its newly accepted jurisdiction beyond reason. Federal permits, the Corps announced, might now be required of the "farmer who wants to deepen an irrigation ditch or plow a field" or "the rancher who wants to enlarge his stock pond." "Millions of people," the Corps solemnly warned, "may be presently violating the law" and subject to severe penalties.

If such inflammatory nonsense was intended to raise a hue and cry, it succeeded. Congressmen are being pressed by the farm bloc and other lobbies to re-establish "navigable waters" as the only area of the Corps' jurisdiction. This would leave at the mercy of the developers the 60 per cent of the nation's economically and environmentally invaluable wetland resources still intact.

Public pressure should be directed not at Congress to tamper with the Water Pollution Control Act but at the Corps of Engineers, the Army and the Administration itself to execute, not sabotage, the law of the land as interpreted by the courts.

Army Corps Recants Farm Permit Stance

Associated Press

The Army Corps of Engineers backed down Tuesday from an earlier statement that proposed regulations might require some farmers to get a permit to plow a field or dig a ditch.

Assistant Army Secretary Victor V. Veysey said normal farming, ranching and commercial forestry operations would be excluded from regulations expanding corps authority over dredge and fill operations in waters of the United States.

Veysey, appearing before a Hous Public Works and Transportation subcommittee, said "nobody was more astonished than I" by the earlier statement, issued when the proposed regulations were made public May 6.

Veysey and the assistant administrator of the Environmental Protection Agency, Alvin Alm, said the two agencies are close to achieving a "reasonable program of regulations . . . [that will] protect serious environmental concerns but not . . . create an adminstrative monster."

THE NEW YORK TIMES, TUESDAY, APRIL 20, 1976

New Threat to Wetlands

Last year the Army Corps of Engineers attempted to discredit a Federal court's interpretation of the Water Pollution Control Act by reducing one of its major provisions to an absurdity.

The court had ruled that the Corps' responsibility for controlling dredging and filling operations extended not just to navigable waters but to all the country's waterways, including its wetlands. The Corps, which characteristically has been more concerned with development than with environment, set up a strawman warning that every farm irrigation ditch and every rancher's stockpond might be affected. The Engineers had clearly hoped that the resulting wave of protest would force Congress to revoke the pertinent section of the law, thereby absolving the Corps of the legal obligation to curb developers' tendency to exploit the country's dwindling wetlands.

But fortunately, the law remained in effect; and once the Corps accepted that fact, it carried out its new duties conscientiously in tandem with the Environmental Protection Agency. With both agencies analyzing development plans, there has been a considerable slowdown in the disappearance of valuable wetland areas. To the Corps' special credit, it recently denied permits to a corporation bent on filling 2000 acres of mangrove wetlands at Marco Island, Florida—a proposal that would, in the Corps' words "contribute an unacceptible adverse impact on this aquatic resource."

• • •

Nevertheless, a furtive attempt is now being made in Congress to return the Corps' jurisdiction to its former restricted limits. It would have the effect of exposing to uncontrolled development—or to poisoning with fill taken from stream beds laden with toxic substances—all coastal wetlands on the shore side of the mean high water mark.

Amendments that would permit such retrogression already have been reported out of the House Committee on Public Works. They should be wholly eliminated on the floor. To sanction them would reduce by two-thirds the protection now available for invaluable buffer lands along the coast, while the wetlands of interior streams and lakes would be left to the mercies of states which all too often have inadequate laws to preserve them.

Wetlands act as brakes to slow down flood waters, as nurseries for fish and shellfish, and as nesting and feeding grounds for birds. It is unconscionable that the protection afforded by these highly essential areas should now be jeopardized by legislation without so much as a hearing to establish its need—or to reveal its real purpose.

St. Louis Post-Dispatch
May 9, 1976

Wetlands In Danger

An effort by dredging, timber, land development and agricultural interests to undermine the legal protection of millions of acres of America's wetlands may succeed this month unless members of Congress are made aware of the value of these water-saturated lowland areas as natural water purifying systems and breeding grounds for waterfowl and fish and other marine life. Without even holding hearings, the House Public Works Committee recently attached an amendment to a water pollution control bill which in effect eliminates environmental protection from 85 per cent of the nation's wetlands by changing the definition of navigable waters.

Under existing law, the Army Corps of Engineers must grant permits for dredge and fill operations affecting navigable waters. Under the more restrictive definition of navigable waters approved by the House committee, most wetlands would no longer be protected under the Engineers' permit program and would be open to development projects that would destroy vast areas of wildlife habitat.

When a Senate authorization bill for water cleanup programs reaches the markup stage in the Public Works Committee on Friday, an effort may be made to attach to that measure an amendment similar to the one on navigable waters (authored by Representative John Breaux of Louisiana) already approved by the House Committee. Members of the Senate Public Works Committee should rebuff such an attempt, especially since no hearings on the matter have been held in the Senate either. And if the Breaux amendment is still attached to the House bill when it reaches the floor, this mischievous addition should be stricken from a measure which is supposed to protect water resources, not destroy them.

The Baltimore Sun, May 22, 1976

The Dirty Water Amendments

Amendments to the 1972 Clean Water Act recently approved by the House Public Works Committee are potentially so damaging, and the arguments for them so flimsy, that the fact they got through the committee—and even stand some real chance of passage—attests to the growing election-year strength of a well-funded, wholly self-interested anti-environmental lobby.

One technique of the lobby is to get its friends in Congress to write "Dear Colleague" letters to other members decrying the dire events that purportedly will occur if existing anti-pollution laws remain on the books. One of the more egregious of these letters told House members that one of the amendments, which would repeal the Army Corps of Engineers' authority over non-navigable waterways, is necessary to avoid requiring farmers to get permits from the Corps to plow their fields. The Corps is empowered under the 1972 act to require permits for dredging and filling on all U.S. waterways, but farmers are specifically exempted under Corps and Soil Conservation Service regulations. The wholly proper intent of the 1972 legislation is to protect irreplaceable resources —pristine streams, wetlands, estuaries and beaches—from further destruction by large-scale developers, who are the obvious behind-the-scenes supporters of the amendment.

An equally mischievous amendment would transfer final authority for approving sewage treatment plants built mostly with federal funds from the Environmental Protection Agency to the states. Not only would the amendment encourage cozy developer-contractor-politican relationships, it would discourage innovations in sewage treatment, especially those that would save federal dollars. Among such innovations is a Muskegon, Mich., sewage system which fertilizes cash crops. EPA has been lax in encouraging such new ideas, but it is certain the states would be even more lax, as long as the flow of federal dollars continued.

A third amendment would reduce the maximum fine for those found responsible for oil or chemical spills, from the present $5 million to $50,000 for the first offense, $100,000 for the second offense and $500,000 for the third offense. Proponents argue that small barge companies cannot afford oil-spill insurance premiums based on the current maximum fine. This argument may have some limited validity, but reducing the potential maximum fine to one one-hundredth its previous level is a certain way to reduce the incentive for large-scale oil and chemical carriers to take adequate precautions against spills. The House should reject all three amendments, soundly.

The Washington Post, June 2, 1976

Safeguards for the Swamps

THE CURRENT anti-Washington mood has compounded Congress' perennial problem of deciding how much regulation is essential and what is too much. An important example is the issue of wetlands protection, which is scheduled to come before the House today in connection with H.R. 9560, a water resources bill.

The bill includes an amendment by Rep. John Breaux (D-La.) which would negate a 1972 law and 1975 court decision which greatly enlarged the Army Corps of Engineers' power to regulate dredging and filling in the nation's marshes, swamps and other ecologically priceless wetland areas. The Corps' expanded program has not yet taken effect. However, some of that agency's own comments have helped to stir up fears that the Army intends to assert control over farm ponds, rice paddies and every other damp spot on the continent. The Breaux amendment is meant to preclude such excesses by slashing back the Corps' authority to about its pre-1972 scope.

As a reaction to alleged regulatory overkill, the Breaux amendment is in several important respects an exercise in heavy-handedness itself. It would leave millions of acres of important wetlands open to exploitation and possible ruin. It would limit the Corps' jurisdiction so arbitrarily that in some cases the boundary of federal review might run through the middle of a marsh. At the same time, because no hearings were held on the measure, its relation to other water pollution control laws is unclear. Some allege that it might permit dumping of poisonous wastes into rivers and lakes that serve as public water supplies. Others claim that, to the contrary, withdrawing the Corps' authority might bring EPA into the wetlands permit business instead.

In view of such difficulties, some Public Works Committee members who backed the amendment have had second thoughts. Rep. Jim Wright (D-Tex.), for one, has been trying to marshal support for modifying the Breaux language or postponing the Corps program until a study has been made. There has also been some discussion of giving qualified states a larger wetlands protection role. On the other hand, EPA and the Interior Department flatly oppose the Breaux amendment and argue that any major changes in the existing program would be premature.

In the midst of this discord, Reps. William H. Harsha (R-Ohio) and James C. Cleveland (R-N.H.), in cooperation with several environmental groups, have proposed a sensible course. They would reject the Breaux amendment and respond to farmers' fears by providing that the Corps may issue general permits for minor dredging activities and may not regulate stock ponds, irrigation ditches and so forth at all. This would solve the immediate worries without tearing up the whole program.

ASSISTANT ATTORNEY GENERAL
LAND AND NATURAL RESOURCES
DIVISION

Department of Justice
Washington

May 28, 1976

Honorable Jennings Randolph
Chairman, Public Works Committee
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

The purpose of this letter is to set forth the views of the Department of Justice on the proposed amendment to Section 404 of the Federal Water Pollution Control Act adopted by the Public Works and Transportation Committee, House of Representatives, in Section 17 of H.R. 9560, a bill "To Amend the Federal Water Pollution Control Act to provide for additional authorization, and for other purposes, with amendment." We are writing to you at this time because the above amendment to the Federal Water Pollution Control Act, if enacted, will seriously undermine our ability to initiate litigation to protect the Nation's valuable wetlands.

As you know, Section 301(a) of the Federal Water Pollution Control Act of 1972 prohibits the discharge of any pollutant into the navigable waters of the United States except as may be authorized by a permit issued pursuant to Sections 402 or 404 of the Act. Section 402 of the Act authorizes the Administrator of the Environmental Protection Agency to issue permits for the discharge of any pollutant, and Section 404 authorizes the Secretary of the Army to issue permits for the discharge of dredged or fill material into the navigable waters at specified disposal sites. The disposal site will be specified for each permit by the Secretary of the Army through application of guidelines developed by the Administrator in conjunction with the Secretary. 40 Fed. Reg. 31320 (1975). Subsection (c) of Section 404 authorizes the Administrator to prohibit the specification of any defined area as a disposal site whenever he determines, after notice and an opportunity for public hearings, that the discharge of material into the area will have an "unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas) wildlife, or recreational areas." In addition, Section 10 of the Rivers and Harbors Act of 1899

provides that it shall be unlawful "to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater or the channel of any navigable water of the United States unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. . . ." 33 U.S.C. 403.

The amendment adopted by the House Public Works and Transportation Committee in Section 17 of the bill would define the term "navigable waters" for purposes of Section 404 of the Federal Water Pollution Control Act to mean "all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)." In addition, the discharges of dredged or fill material in waters other than navigable waters would not be prohibited or otherwise subject to regulation under Sections 9, 10 and 13 of the Rivers and Harbors Act of 1899.

The generally accepted definition of navigable waters was set forth by the Supreme Court in The Daniel Ball, 10 Wall. 557, 563 (1870) wherein the Court stated: "Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on waters. And they constitute navigable waters of the United States within the meaning of the acts of Congress . . . when they form in their ordinary condition by themselves, or by uniting with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water." Although the definition in the proposed amendment to Section 404 of the Federal Water Pollution Control Act appears to be a restatement of the foregoing definition, the amendment does not take cognizance of later decisions of the Supreme Court. In particular, the proposed definition ignores the decision of the Supreme Court in Economy Light and Power Company v. United States, 256 U.S. 113 (1921). In

that case, the Court found that the Desplaines River in Illinois which was used until the year 1825 for the transportation of furs and supplies by canoes, but which was not thereafter used for transportation was nevertheless a navigable water of the United States and subject to regulation under the Rivers and Harbors Act of 1899. The Court stated: " . . . that a river having actual navigable capacity in its natural state and capable of carrying commerce among the states is within the power of Congress to preserve for purposes of future transportation even though it be not at present used for such commerce, and be incapable of such use according to present methods, either by reason of changed conditions or because of artificial obstructions." Id. at 123. Thus, when once found to be navigable, the waterway remains so. United States v. Appalachian Power Company, 311 U.S. 377 (1940). The principle enunciated by the Supreme Court in Economy Power and Light, and followed in subsequent decisions, is extremely important to us in our litigation to establish the navigability of particular bodies of water including litigation to protect the wetlands. We recently relied upon that principle to establish that one of the few remaining mangrove areas located in Puerto Rico was navigable. PFZ v. Train, 393 F. Supp. 1770 (D.C.D.C. 1975). Although the Committee recognized that the definition in Section 17 omitted the historical test of navigability, H.R. Rep. No. 94-1107, 94th Cong., 2d Session 23 (1976), we are of the opinion that the examples cited in the Report of bodies of water (small intrastate lakes) being classified as navigable by the Corps of Engineers does not warrant such a far-reaching amendment. Although the Corps' determination of navigability is "final" in the administrative law sense of that term, navigability is a question of fact which must be sustained upon judicial review of the determination. Thus, an aggrieved party is afforded ample protection from any arbitrary and capricious decisions of the Corps of Engineers. Also, litigation could be expected over waterways which have been adjudicated or considered navigable for many years by reviewing an issue that the Supreme Court disposed of in 1921. Moreover, the validity of Corps of Engineers permits issued pursuant to Sections 10 and 13 would be open to question.

The proposed amendment, moreover, may not accomplish its apparent purpose, namely, to preclude a Federal presence in wetlands and other areas above the mean high tide line. H.R. Rep. No. 94-1107, 94th Cong., 2d Session (1976). Section 17 of the bill would only restrict the geographic area in which the Secretary of the Army may issue permits; it would not modify the provisions of Section 301 of the Act, which prohibit the discharge of fill material in navigable waters without a permit. Thus, rather than remove the wetlands above the mean high tide line from Federal regulation, the proposed amendment could be construed absolutely

to prohibit the discharge of any fill material therein. Moreover, the proposed amendment would not affect the authority of the Administrator of the Environmental Protection Agency pursuant to subsection (c) of Section 404 to prohibit the disposal of fill material at specified sites, including wetlands.

In any event, a coastal wetland is partially above and partially below the mean high tide line. From the ecological point of view, the wetland is a unit. If you fill that part which is above the mean high tide line, the remainder is adversely affected. If Section 17 were enacted, we might be precluded from filing suit to protect those areas below the mean high tide line where the fill material was deposited above said line, but pollutants, nevertheless, were discharged below the mean high tide line by means of leaching or runoff.

Subsection (e) of the amendment would apply the definition set forth in subsection (d) to Sections 9, 10, and 13 of the Rivers and Harbors Act of 1899. This Act has been held to extend to all activities which "alter or modify" the course, location, condition or capacity of navigable waters wherever the activities take place, without regard to the location of the mean high tide line or the mean high water mark. The most recent cases supporting this view are United States v. Moretti, Inc. _____ F.2d _____ (C.A. 5, 1976) and United States v. Sexton Cove Estates, Inc., _____ F.2d _____, (C.A. 5, 1976), but the legal principle goes back to United States v. Rio Grande Irrigation Company, 174 U.S. 690 (1899), wherein the Court stated: "any obstruction to the navigable capacity, and anything, wherever done or however done, within the limits of the jurisdiction of the United States, which tends to destroy the navigable capacity of one of the navigable waters of the United States is within the terms of the prohibition." The amendment could be construed as removing this prohibition from Federal law and would permit filling activities above the high water line without regard to their effect on the navigable capacity of other bodies of waters. It would remove from regulation the placement of dredged or fill materials into tributaries of navigable waters although these activities could pollute the navigable waters downstream from the fill.

The amendment also has important implications for the disposal of dredged spoil or fill on fastland in terms of pollution abatement. For example, soil or dredged material that is highly contaminated by arsenic, mercury, or other toxic substances, could be placed on fastland adjacent to a navigable waterway and the pollutants could wash or leach into the waterway. It is open to question whether these discharges could be penalized or enjoined under the 1899 Act, [illegible] by Section 17.

The amendment is undesirable because it would remove much of the authority of the United States to protect one of its most valuable natural resources, the remaining coastal and fresh water wetlands which serve important purposes relating to fish and wildlife, as natural recharge areas, and protection from storm and erosive wave action. These waters are "the public property of the Nation," Gilman v. Philadelphia, 3 Wall. 713, 724-725 (1866) and are held in trust by the Federal Government for the benefit of the public, Illinois Central Railroad v. Illinois, 146 U.S. 387, 453 (1892). The Land and Natural Resources Division has made protection and enhancement of these irreplaceable natural resources an important part of its program to enhance environmental quality. Many, if not most, of these important wetland areas are physically located above the arbitrary line designated as mean high water. That line is merely an average of high tides over a lunar cycle and does not describe the geographic extent of the entire water body involved. Yet these areas are vital to the protection of the waterway as a viable ecosystem. Accordingly, the Department of Justice recommends against enactment of Section 17 of H.R. 9560.

The views expressed herein are those of the Department of Justice and do not necessarily reflect the Administration's position on the proposed amendment to Section 404 of the Federal Water Pollution Control Act.

Sincerely,

Peter R. Taft
Assistant Attorney General
Land and Natural Resources Division

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

June 18, 1976

Dear Senator Muskie:

The recently passed amendments to the Federal Water Pollution Control Act (FWPCA) regarding the extent of Corps of Engineer's regulatory authority under Section 404 raise serious environmental policy issues of concern to the Council on Environmental Quality. I want to take this opportunity to bring these concerns to your attention.

As stated in two letters of mine to Congressmen Leggett and Forsythe, enclosed, the Council strongly opposed the amendment to H.R. 9560 offered by Congressman Breaux which redefined the term "navigable waters." We did so on the grounds that it would undermine many of the goals and policies declared in the FWPCA, that the amendment was unnecessary and that the Breaux amendment itself was not subjected to hearings or other public review by Congress. The amendment was, of course, not supported by the administration. Instead the Council, in accordance with the administration's position, has supported the Cleveland-Harsha amendment to H.R. 9560 that would have established clear permit exemption for a range of normal farming and silvicultural activities while retaining federal regulatory authority over those activities that would most significantly affect the nation's water quality and water resources.

Unfortunately the House has accepted Congressman Wright's amendment to H.R. 9560 that would substantially curtail this essential federal regulatory authority. This new amendment would restrict the federal Section 404 permit program to coastal wetlands and to waters that are or might be used to transport interstate or foreign commerce.

We strongly believe that such an amendment, if accepted by the Senate, would constitute a drastic step backwards in the federal efforts under the FWPCA "to restore and maintain the chemical, physical and biological integrity of the nation's waters." Many hundreds of miles of small waterways, and the vast inland wetland resources of this nation that provide natural pollution control, will go unregulated and unprotected.

The Council is of the opinion that the Seciton 404 Program should be given a reasonable chance to develop as presently constituted without creating new and possibly more onerous problems. We ask the Senate carefully to consider the value of this existing program, particularly when such important ecological and economic resources are at stake.

Please let me know if the Council can be of further assistance in this matter.

Sincerely,

Russ

Russell W. Peterson
Chairman

Honorable Edmund Muskie
United States Senate
Washington, D.C. 20510

COMMENTS ON THE "WRIGHT AMENDMENT" TO H.R. 9560

Federal Water Pollution Control Act Amendments of 1976

The National Marine Fisheries Service of the National Oceanic and Atmospheric Administration has reservations concerning the replacement amendment offered by Congressman Wright concerning "Permits for Dredged or Fill Material," and approved by the House of Representatives on June 3, 1976.

Section 404 of the Federal Water Pollution Control Act (P.L. 92-500) establishes a Federal permit program for regulating the discharge of dredged or fill material in "waters of the United States." Proposed development activities are reviewed by the Fish and Wildlife Service, the National Marine Fisheries Service, and the State agencies administering fish and wildlife resources under provisions of the Fish and Wildlife Coordination Act (FWCA). Federal and State fish and wildlife agency representatives are continually working together to improve the coordination procedures for permit applications and for other activities. Although the amendment offered by Congressman Wright would appear to give greater regulatory control to State governments, the existing provisions of the FWCA now assure that State views and recommendations are an integral part of the decision-making process for Federal permits.

The P.L. 92-500 addresses navigable waters with the following broad definition: "The term 'navigable waters' means the waters of the United States including the territorial seas." The Corps of Engineers, however, sought to only regulate those waters which were used in the past, are presently used, or could be used with reasonable improvement to transport interstate commerce. Based on the definition of navigable waters in P.L. 92-500, the U.S. District Court for the District of Columbia decided on March 27, 1975 that the Corps of Engineers must expand its regulatory program to include all waters of the United States. Regulations published by the Corps on July 25, 1975 provide control over all waters and adjacent wetlands, including those wetlands above mean high water.

The Wright amendment at Subsection (d)(1) provides an alternative definition of navigable waters which excludes the historical use of the waterway as a test of its navigability. This restrictive definition could remove Federal jurisdiction from all spawning grounds in headwater streams used by anadromous fish such as salmon. Thus, valuable salmon spawning streams in Alaska, Washington, Oregon and California would no longer be protected by provisions of the Fish and Wildlife Coordination Act.

The Wright amendment also affects Sections 9, 10 and 13 of the Act of March 3, 1899, such that the restrictive definition of navigable waters also applies to the permit programs these sections cover. It is important to note that Section 402 of P.L. 92-500 is not changed by this

amendment, and the National Pollutant Discharge Elimination System permits covered by this section would continue to be issued by EPA for all waters of the United States. This inconsistency could result in confusion and situations lacking in judicial or administrative remedy. For example, materials placed on the banks of a stream which could subsequently wash into a navigable waterway would not be regulated by the Act of March 3, 1899 with enactment of the Wright amendment.

Subsection (f) of the Wright amendment would provide for the establishment of a Federal permit program in the State waters other than navigable waters, if the Governor of the State and the Secretary of the Army, acting through the Chief of Engineers, determine that these waters should be regulated because of their ecological and environmental importance. If the Governor does not conclude that the waters of his State are environmentally or ecologically significant, no such agreement will result, and the State will exercise complete control over these waters and wetlands.

Subsection (j) of the Wright amendment states that authority to regulate wetlands adjacent to navigable waters may be delegated to a State. Although some States have existing programs and policies which would restrain development pressures in wetlands, most States lack legislation and funding to effectively regulate dumping and filling. Subsections (f) and (j) could clear the way for innumerable water resource development projects without the requirement to consult with Federal and State fish and wildlife agencies under the Fish and Wildlife Coordination Act. This situation could result in irretrievable and irreversible diminution of this Nation's wetland resources.

Wetlands in and adjacent to this country's navigable waters are a vital link in the life support system of living marine resources. No natural ecosystem, regardless of its individuality, is isolated from adjacent systems. Nutrient exchange occurs between the adjacent land and the estuary via surface runoff, and in turn between the estuary and the ocean through tidal currents. High marshes, which exist both in regularly flooded and irregularly flooded elevations, are productive natural areas upon which numerous animals depend for food, shelter, nursery areas or for breeding grounds. The production of wetland nutrients may be modified by many of man's activities. Encroachments by developers into the high marsh may reduce the productivity of the estuary by limiting food sources of various organisms, from bacteria to predatory fish. When the productivity of the estuarine waters adjacent to the affected wetland is reduced, lower catches of commercial and recreational fish and shellfish result.

Many species are dependent on estuaries for either a considerable part of their lives, or for critical stages in their life history. In 1973 the dockside value of fish and shellfish landed in the United States was approximately $900 million. Of this, eight of the ten most valuable

species were directly dependent on estuaries and represented $660 million in dockside revenue (Tihansky and Meade 1974).

Strong pressures exist for developing wetlands. Land-fill and dredging, draining of marshes, increasing use of fresh water and many other activities have taken, and are taking, their toll of estuarine areas. The U.S. Department of the Interior (1970) reported that during 1950-1969, 640,000 acres of estuarine habitat were destroyed through dredging and filling (Table 1). Industrial, commercial and other sources of water pollution affect marine resources as well. In 1964, 27,000 acres of North Carolina estuaries were closed to shellfishing. Ten years later this loss had jumped to nearly 700,000 acres, representing a loss of shellfishing area which approximates 30 percent of the total estuarine water area in the State (Brown 1974).

From 1930-1960, the population in the coastal counties of the United States grew 78 percent while the total population grew 45 percent; these coastal counties represent only 15 percent of the land area of the contiguous U.S. By the year 2000, it is estimated that 70 percent of the Nation's population will reside in this coastal region. Presently, 40 percent of all industrial plants are located along the coast (Thayer 1975). As our population increases so will the demands for fish, shellfish, and uses of estuaries.

In summary, marshes are a valuable, integral part of the aquatic ecosystem. To permit them to be destroyed indiscriminately is an ecological affront which ignores their productive capacity. It is for these reasons that we have supported the existing Section 404 permit program and strongly opposed the Breaux ammendment. It is also our conclusion that the Wright amendment does not improve on the existing provisions of Section 404.

Table 1. Acres of estuarine habitat important to fish and wildlife estimated as lost from dredging and filling operations, 1950-1969. Taken from USDI (1970).

Estuarine Zone	Acres of Important Habitat (Thousands)	Acres Lost Through Dredging and Filling (Thousands)	Percent Lost 1950-1969
North Atlantic	271.0	2.5	0.9
Middle Atlantic	2,201.8	77.0	0.4
Chesapeake	603.3	5.0	0.9
South Atlantic	823.8	42.3	5.1
Biscayne & Florida Bay	922.2	21.1	2.4
Gulf of Mexico	8,325.0	426.7	5.1
S.W. Pacific	388.0	46.2	12.0
N.W. Pacific	2,142.0[1]	21.0	1.0
Alaska	593.4	1.5	[2]
Great Lakes	432.0[3]	2.6	0.1
Total	16,702.5	645.9	3.9

[1] Includes Puget Sound

[2] Insignificant

[3] Shoal water under 6 feet in depth

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

Memorandum

To: Legislative Counsel

Through: Assistant Secretary for Fish and Wildlife and Parks

From: Director, Fish and Wildlife Service

Subject: Amendments to Section 404 of the Federal Water Pollutio. Control Act

As requested by your memorandum of June 9, 1976, the U.S. Fish and Wildlife Service has reviewed the subject amendments passed on June 3 by the House of Representatives. Our comments follow:

The Federal Water Pollution Control Act Amendments of 1972 (the Water Act) is an admirably comprehensive piece of legislation. Embodied within the statute are numerous water pollution control programs designed, in the aggregate, to reach out and control all forms of water pollution at their sources, wherever those sources might be found. The breadth of the Act logically and necessarily follows from its stated objective and goals, among which are the following:

> . . . to restore and maintain the chemical, physical, and biological integrity of the Nation's waters (Section 101.(a))

> . . . that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983. (Section 101.(a)(2))

Pursuant to these and other goals and objectives, the Congress devised several permit programs to regulate discharges of pollutants into the Nation's waters. Of these, perhaps the best known is the National Pollutant Discharge Elimination System (NPDES) permit program (Section 402 of the Water Act)

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which is administered by the EPA and which regulates the discharges of municipal and industrial pollutants "into the navigable waters." A closely related program, jointly administered by EPA and the Corps of Engineers pursuant to Section 404 of the Act, requires permits for the ". . . discharge of dredged or fill material into the navigable waters at specified disposal sites." (emphases added). The Act, at Section 502 (7) provides a single definition of "navigable waters," namely, "The waters of the United States, including the territorial seas." Although this definition was not more fully expanded and clarified within the statute, the legislative history of the Act leaves no doubt that the intent of Congress was to broaden the concept of "navigable waters" prevailing prior to the Act. The Committee report states that:

> One term that the committee was reluctant to define was the term "navigable waters." The reluctance was based on the fear that the interpretation would be read narrowly. However, this is not the committee's intent. The committee fully intends that the term "navigable waters" be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes.

The only previous agency determinations of "navigable waters" were those which had been made by the U.S. Army Corps of Engineers and the U.S. Coast Guard. It is evident, then, that the Congress originally intended to prevent the Water Act from being encumbered by these or any other interpretations of "navigable waters" which would obstruct the goals and objectives of the Act.

The Wright Amendment provides a definition of "navigable waters" that is intended to be applied for purposes of administering Section 404 (presumably the current definition of "navigable waters," as expressed in the statute and interpreted by the courts, will continue to apply to the remainder of the Act). This new definition, together with other provisions of the amendment, has the potential to radically reduce the current geographical jurisdiction of the Section 404 program. It does this by excluding numerous classes of waters from the definition proper and from the definition of "adjacent wetlands," and by providing that such waters or portions thereof, may be regulated only upon formation of State-Federal agreements revokable at any time, in whole or in part, at the discretion of the Governor.

Among the classes of waters which are excluded from the Wright Amendment's definitions of "navigable waters" and "adjacent wetlands" are:

(1) Most coastal fresh marshes and coastal open fresh marshes. The amendment requires that all coastal "adjacent wetlands" be ". . .normally characterized by the prevalence of salt or brackish water vegetation. . . ." This would exclude most of the approximately 3.8 million acres of coastal wetland Types 12 (coastal shallow fresh marshes), 13 (coastal deep fresh marshes), and 14 (coastal open fresh waters). These wetlands have long been defined as "coastal," but they are not characterized ". . .by the prevalence of salt or brackish water vegetation. . .," and thus would apparently be excluded from the definition of "adjacent wetlands," except when lying adjacent to navigable fresh waters, which most do not. These categories of coastal fresh waters are highly significant in the production of sport and commercial fishes, including many which are taken in ocean waters, and also provide essential wintering habitat for migratory waterfowl. Together with downstream brackish and saline wetlands, they form a complex coastal wetlands ecosystem, the components of which are linked together and energized by flows of water and nutrients. Degradation or destruction of the freshwater wetlands of this system would reduce the vitality and productivity of the saline and brackish components. If the national goal, as expressed in Section 101.(a)(2) of the Water Act, is to be achieved, it is essential that conservation and development of these wetlands be accomplished through a comprehensive and consistent regulatory scheme that includes all elements of the coastal wetlands. The Wright Amendment provides to the States the prerogative to exclude most coastal fresh wetlands from the Section 404 permit program, and thus paves the way to uneven jurisdiction, whereby discharges into fresh coastal wetlands would be regulated in some States and unregulated in others.

(2) Freshwater streams lying above the head of navigation of "navigable waters" as defined in the Wright Amendment (new subsection (d)). This would include most of the small headwaters streams which furnish spawning habitat for anadromous species such as salmon and steelhead trout. Some of these streams are so shallow that at times spawning fishes are not even completely covered by water. Such waters are clearly incapable, in their present condition of transporting interstate or foreign commerce, and are so remote from existing navigable-in-fact waters as to make it improbable that they ever would support such commerce, even "with reasonable improvement." Thus, the commercial implications of anadromous fishery production notwithstanding, these waters could not meet the tests of "navigable waters" or "adjacent wetlands" in the Wright Amendment, and would be regulated only with the approval of the Governors of the States in which they occur.

(3) Freshwater marshes, swamps, bogs, lakes, basins, and other shallow vegetated fresh wetlands which escape the definitions of "navigable waters" or "adjacent wetlands" provided in the Wright Amendment. Large swamps, such as the Okeefenokee, and inland fresh marshes such as the Florida Everglades would apparently be excluded, along with a host of lesser bodies. The quality and productivity of these categories of waters varies considerably from one locality to another. In the aggregate, however, their contribution to the protection and propagation of fish and wildlife is monumentally important. Such waters frequently provide nesting sites for waterfowl and for aquatic wading birds such as herons and egrets; habitat for beaver, mink, muskrat and other furbearers; and spawning and rearing grounds for freshwater fishes and invertebrates which furnish food for numerous other species, including man.

Other examples could be cited. However, from the foregoing, it should be readily apparent that numerous ecologically vital classes of waters will receive a substantially diminished quality of protection should the Wright Amendment pass into law.

The proposed new subsection (f) provides for joint Federal-State agreements, at State option, to extend the Section 404 program to waters other than navigable waters or adjacent wetlands. Central to such an agreement would be a finding, by the Governor of a State and the Chief of Engineers, that discharges in such waters ". . .should be regulated because of the ecological and environmental importance of such waters. . . ." Programs undertaken pursuant to such an agreement may, however, be revoked, in whole or in part, by the Governor of a State. Thus, waters declared to have "ecological and environmental importance" and made subject to regulation under Section 404, could subsequently be withdrawn from this jurisdiction, without any requirement for either (1) a reassessment of their ecological value or (2) implementation of an effective State program for regulating use of such waters. The provisions of subsection (f) could well result, then, in fragmentary and unstable programs -- or no programs at all -- for regulating discharges of dredged and fill materials in ecologically important waters of many States. It is difficult to reconcile this very real possibility with the objective of restoring and maintaining the ". . .chemical, physical, and biological integrity of the Nation's waters" (Section 101.(g) of the Water Act) and with the Act's national goal that, ". . .wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife, be achieved by July 1, 1983" (Section 101.(a)(2)). Many of these same waters would continue to be rigorously protected, under Section 402 of the Act, from pollution by discharges of industrial and municipal

wastes. It seems incongruous, therefore, that waters protected from these kinds of discharges, at great public expense, should remain vulnerable to wholesale pollution by the unregulated discharge of contaminated dredged or fill materials.

The proposed new subsection (g) provides for the issuance of general permits for discharges which are determined by the Secretary of the Army to be in the public interest. We favor the general permit concept. However, we believe that general permits should be issued only for those classes of activities which, individually and cumulatively, would cause minimal adverse environmental impact. Hundreds, and perhaps thousands, of such activities are performed annually in the Nation's waters, and it would be administratively cumbersome and unnecessarily time-consuming to process an individual permit for each such activity. A smaller number of activities have a high potential for degradation of water quality and should not be regulated by any general permit, but should instead be individually processed, with a view to the development of appropriate project modifications or alternatives, where necessary, to avoid the unnecessary degradation of water quality and habitat values. The Wright Amendment, however, in its provision for general permits, provides no distinction between projects having insignificant impacts and those having potentially major and destructive ecological impacts. Such distinction presumably would be at the discretion of the Secretary of the Army. We believe that enlightened regulation of the use of the Nation's waters requires that major, significant filling and disposal activities be individually scrutinized. Accordingly, we find Subsection (g) unacceptably broad in the latitude it grants for issuance of general permits.

The proposed subsection (h) exempts numerous types of farming, silvicultural, ranching, water control, and transportation maintenance activities from the jurisdiction of Section 404. We concur in this approach to the avoidance of overregulation. In our view, overregulation is best accomplished not by diminishing the geographical reach of the Act, but by seeking out and exempting activities which, consistent with the objectives of the Act, either require no regulation or may be more logically and expediently regulated through other provisions of the Act (e.g. Section 208).

Subsection (i) exempts from the provisions of Section 404 those congressionally-authorized Federal or Federally assisted projects for which the effects of dredged or fill materials discharges have been included in an environmental impact statement or environmental assessment prepared pursuant to the National Environmental Policy Act and submitted to the Congress in connection with the authorization or funding of such a project. We point out that many projects are funded or authorized

in the Congress prior to the exact specification of disposal sites for discharges of dredged or fill material. The probable impact of subsection (i) would be to encourage construction agencies to specify such sites in order to obtain specific congressional authorization for the discharge activity, and thus avoid the requirement for a Section 404 permit. This procedure would impair the opportunity for flexibility in the refining of project design features, since the involved agency would evidently be required to seek the consent of the Congress for any substantive change in the disposal site. The Congress has traditionally delegated to the Executive Branch the responsibility for developing those specific features of project design necessary to achieve a balance in the development and preservation of the Nation's water resources. We believe that this approach, which requires compliance with numerous Acts of Congress (e.g. the Endangered Species Act of 1973, Department of Transportation Act, the National Environmental Policy Act of 1969) provides the most practicable vehicle for refining individual developmental features of Federal projects.

Subsection (j) provides for delegation to a State, upon its request, of any or all functions related to regulation of discharge activities in "adjacent wetlands" of the State. Such delegation could be made upon determination by the Secretary of the Army (a) that such State has the authority, responsibility, and capability to carry out such functions and (b) that such delegation is in the public interest. It is not inconceivable that delegated programs of such nature could eventually be an effective alternative to Federal agency regulation. At this time, however, it is unlikely that many States possess the human and fiscal resources necessary to the carrying out of effective delegated programs. For this reason, we believe it is highly probable that States will seek to obtain Federal funding to assist in the development of such programs.

The provisions for delegation of programs to the States are broad and general, and would undoubtedly require the development of detailed guidelines, by the Department of the Army, for determining whether a State has the authority, responsibility and capability requisite to the conduct of such a program and for evaluating the general public interest implications of any such delegation. We note that several proponents of the Wright Amendment, during the floor debate, expressed the viewpoint that administration of the current Section 404 permit is encumbered with excessive and complicated rulemaking by the Executive Branch, i.e., the Corps of Engineers. We point out that, in the absence of a detailed delegation mechanism (such as that provided in Section 402), it will once more become necessary for the Corps to promulgate detailed guidelines. (The same observation is applicable to the proposed subsections (f) and

(g), governing, respectively, discharges into waters other than navigable waters or adjacent wetlands and general permits). If there is, ultimately, to be a delegated program, as contemplated in subsection (j) we believe it would be preferable for the delegation mechanism to be described in detail within the statute, in a manner similar to that provided in Section 402.

In conclusion, the Fish and Wildlife Service recommends that the Wright Amendment, as proposed, not be adopted. With refinements described above, we would not object to amendments which provide specific statutory authorization for general permits. We concur in the design of the proposed Subsection (h), which exempts from regulation certain activities which either require no regulation, consistent with the objectives of the Act, or which may be more effectively regulated by other provisions of the Act. With regard to the remainder of the Amendments, we recommend that further legislative action be deferred, at least until the existing program has been further tested and evaluated on the basis of operational experience.

League of Women Voters of the United States 1730 M St., NW, Washington, D.C. 20036 (202) 296-1770

26 July 1976

Senator Jennings Randolph, Chairman
Senate Public Works Committee
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The League of Women Voters of the United States urges you to reject amendments to Section 404 of the 1972 Water Pollution Control Act that would eliminate protection of our nation's wetlands.

With over half of our nation's wetlands already destroyed by dumping of dredging materials and filling for development, we cannot afford to lose the remainder. With only minimal legislative changes, the permit program already developed by the Corps of Engineers in its July 1975 regulations can give these vital resources the protection they deserve and need.

Any amendment that limits a dredge and fill permit program to waters used for interstate commerce will eliminate protection for 80 percent of our inland and coastal wetlands. Similarly, exempting federal activities from Section 404's protection creates the potential for many of the largest dredge and fill programs to proceed without adequate environmental safeguards.

The regulations developed by the Corps in July 1975 have already addressed many of the concerns about excessive federal regulation. If Section 404 is to be amended, the League urges you to incorporate those regulatory provisions into law.

Proposed changes in law should include authority for a general permit to be used for minimal or environmentally insignificant discharges of dredge or fill material; the exemption of normal farming, ranching, and forestry activities from permit requirements, and the retention of federal authority over the activities that would most significantly affect the nation's water resources.

The existing Corps' regulations give the states a significant role in determining whether a permit for proposed dredge or fill discharges should be granted. Any major changes in this federal-state relationship will only introduce new bureaucratic and judicial delays in the program and create inconsistencies within the Water Pollution Control Act.

PRESIDENT
MARY C. CLUBEN
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Ruth J. Hanford
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Connie Fortune
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Bethesda, Maryland
Betty N. MacDonald
Louisville, Kentucky
Ruth Bulmer
EXECUTIVE DIRECTOR

Our nation's ecologically and economically vital wetlands cannot afford further assaults. The League therefore strongly urges you to reject crippling amendments to Section 404.

Sincerely,

Ruth C. Clusen
President

Jean R Anderson

Jean Anderson,
Environmental Quality Chairman

Senator RANDOLPH. Gentlemen, we will go from the problems of farming and agriculture and associated activities and come over to the problems of mining.

Mr. G. L. Barthauer, of the American Mining Congress, we will ask you to testify.

STATEMENT OF G. L. BARTHAUER, VICE PRESIDENT, ENVIRONMENTAL AFFAIRS, CONSOLIDATION COAL CO.

Mr. BARTHAUER. Thank you, Mr. Chairman.

My name is Gerald L. Barthauer and I am vice president, environmental affairs, for Consolidation Coal Co. My business address is 924 North Washington Road, McMurray, Pa. 15317.

I am appearing today as a witness on behalf of the American Mining Congress. The American Mining Congress is a trade association whose membership includes companies that produce most of the Nation's metal, coal, and industrial and agricultural minerals.

Membership also includes over 200 companies that manufacture mining and mineral processing equipment, as well as engineering and contracting companies and financial institutions that serve the mining industry.

We do have a statement to submit for the record, but I would like to brief that statement in a few comments.

My own company, Consolidation Coal Co., is a major coal producer employing over 20,000 persons. In my testimony, I will refer chiefly to problems encountered or anticipated by the coal industry. However, I wish to emphasize that the impact of the 404 regulations of the Federal Water Pollution Control Act are not limited simply to coal mining, but also have impact on all types of surface mining including gravel pits, rock quarries, and so forth. Indeed, many of these problems will affect surface operations associated with underground mines.

The American Mining Congress was invited to appear today to discuss the statutory basis for and the implication of the Corps of Engineers regulations implementing section 404. Two sets of regulations are involved, the guidelines of the Environmental Protection Agency and the permit regulations promulgated by the Corps of Engineers.

The American Mining Congress supports the authority of the corps over the disposal of dredge and fill material in truly navigable waters. Section 404 of the act was initially interpreted by the Corps of Engineers as doing just that. But, as you are aware, a U.S. district court ordered the promulgation of regulations extending the corps' regulatory authority over all of the Nation's waters to the maximum extent possible under the commerce clause of the Constitution.

The corps has even gone beyond that directive and has actually included land areas as "navigable waters" by the use of the term "wetlands." Wetlands are defined as areas that are periodically inundated. In addition, the navigable waters have now been defined to include all streams where the flow is greater than 5 cubic feet per second.

The members of this committee and the Senate will be the final judges as to whether the corps' jurisdiction and permit authority should be so extensive. The House, in passing H.R. 9560, has clearly expressed its intent that the term "navigable waters" should not be so all-inclusive.

IMPACT ON MINING INDUSTRY

The regulations promulgated under section 404 will have a significant impact on the mining industry. This, in turn, will impact on the Nation's drive to increase coal production in an effort to decrease dependence on foreign oil.

A large proportion of the needed increase in coal production will come from surface mining, and under these regulations, dredge and fill permits will be required even where the impact on the environment is minimal. Let me briefly discuss several typical activities associated with surface mining which, under the present regulations, will require dredge and fill permits.

In the course of surface mining, it is frequently necessary to divert a small stream around a proposed mining operation. This becomes necessary since it is virtually impossible to surface mine in a logical sequence along the banks of a meandering stream. Up to 500 feet of surface area on either side of the stream must be bypassed in order to prevent possible encroachment on the stream itself, thereby negating the recovery of valuable coal reserves.

This could well make the entire project uneconomical since it might not be profitable to mine that area without recovery of this coal. Stream diversion around the property is frequently practiced and, in normal practice, permits for such diversion are obtained from State agencies.

Movement of large-scale equipment frequently involves constructing bridges or culverts to cross small streams. Either activity would require a corps permit, even though the impact on the stream would be temporary and minimal. This problem is particularly acute in moving a large stripping shovel or dragline across a stream to reach a new mining area. It is normal practice to use the dragline to build a temporary causeway over which the equipment travels.

Upon reaching the other side, the same equipment removes the causeway and any affected areas are immediately replanted. This whole operation may take only 24 to 48 hours and is usually carried out in dry weather. If a delay is encountered in obtaining a permit, a $10 million piece of equipment would become idle during the delay. I might point out that such equipment makes possible the extraction of roughly 15,000 tons of coal a day, equivalent in heating value to roughly 50,000 barrels of oil a day.

The activities such as I have described are only several examples of common practices associated with surface mining. The impact on streams in virtually all cases is minimal and temporary. We see little or no justification for the involved administrative procedures and permit requirements promulgated under phase II and phase III of the corps regulations.

NEED FOR ASSURANCE THAT PERMITS WILL BE OBTAINED

As this committee knows, the Federal Water Pollution Control Act requires specific standards of performance for the mining industry with respect to water pollution control. These requirements are clearly spelled out in regulations promulgated under other sections of the Federal Water Pollution Control Act. We expect to meet these requirements and can plan accordingly.

However, the regulations set forth under 404 for issuing permits are subjective in nature and cannot be examined from an objective point of view to determine whether or not a permit will ever be issued. The definitions even leave open the question of the exact waters and land areas which fall within the scope of the regulations. I think we have seen some examples of that in the discussion a few minutes ago.

This factor is highlighted in the discussion accompanying the corps regulations [40 F.R. 31320–21]. It is stated:

> We realize that some ecologically valuable water bodies or environmentally damaging practices may have been omitted. To insure that these waters are also protected, we have given the District Engineer discretionary authority to also regulate them on a case by case basis.

In many cases, a coal company will be unable to determine whether or not it will need a dredge or fill permit for a particular activity. This problem is made even more serious by the provision which requires the district engineer to issue a cease-and-desist order if he believes that an ongoing activity falls within the dredge and fill permit program. Under these circumstances, the district engineer cannot accept for processing any permit application on this activity while any civil or criminal proceedings are pending. A company must use an extremely conservative approach, thereby placing an additional burden on the Corps of Engineers when it is doubtful that the corps will be able to expeditiously process the anticipated workload.

House Report No. 74–1107 which accompanied H.R. 9560 pointed out that the Corps of Engineers would probably require an increase in personnel of approximately 600 simply to administer the anticipated workload. The report noted that it was doubtful that either Congress or the administration would approve such an increase. It appears clear to us that the mining industry will be unable to receive timely approval for all of the permits required under the Corps of Engineers regulations.

It is also not clear to us whether or not the estimated personnel increase of 600 includes sufficient trained people to prepare any necessary environmental impact statements. As you know, the issuance of a corps permit is a Federal action and falls within the purview of the National Environmental Policy Act of 1969.

We foresee, as a result of past experiences, numerous objections to proposed activities, even where those activities will have little impact upon the environment. Under these circumstances, the corps will frequently be forced into preparing environmental impact statements prior to issuance of the permits. Therefore, the estimate of 600 additional persons may be vastly understated.

The industry's problems with the corps regulations are both short and long term. From a short-term standpoint, implementation of phase II and phase III portions of the program can impose substantial delays on current mining operations. The corps simply is not equipped at the present time to process in a timely manner all of the permit applications which will be generated.

Many stream crossings and planned activities are imminent and operations cannot be shut down to wait for permits. This could result in a number of undesirable effects such as the layoff of employees and the inability to fulfill commitments to supply coal necessary for electric power generation.

The problems are also long term. In order to obtain financing and make the necessary contractual commitments with proposed new coal-fired electric generating plants, there must be a high degree of certainty that permits will be issued so that the mine can become operative. The long leadtime for ordering new mining equipment requires that we place these orders at the earliest possible moment.

For example, a dragline large enough to be used as a primary stripping tool must be ordered 4 to 5 years in advance of starting operations. Substantial penalties are involved in canceling such orders. Also, the potential customer must be assured of a particular reserve of coal so that the generating plant can be designed and constructed to use this specific fuel.

PROTECTION OF WETLANDS

The issue of protecting the wetlands has become one of the chief issues with respect to section 404. The Environmental Protection Agency in its guidelines has stated:

> From a national perspective, the degradation or destruction of aquatic resources by filling operations in wetlands is considered the most severe impact covered by these guidelines * * *. The guiding principle should be that the destruction of highly productive wetlands may represent an irretrievable loss of a valuable aquatic resource. (40 CFR 240.4–1(a)(1)).

The Federal Water Pollution Control Act has thus been converted into a mechanism for protecting the wetlands. The mining industry recognizes the ecological importance of certain wetlands but questions whether the Corps of Engineers and the Environmental Protection Agency are the appropriate authorities to oversee their protection and whether a single section of the Federal Water Pollution Control Act which does not even mention the term "wetland" is the appropriate method of dealing with the issue.

Mining deposits are unique in that they must be extracted where they are found by a method dictated by geologic, environmental and economic factors. The regulations fail to recognize this uniqueness and could prevent the extraction of minerals based solely on aquatic consideration. The American Mining Congress suggests that the proper approach to the protection of the wetlands would involve completion of a survey to identify the critical wetlands with an analysis of the potential uses of the area including mineral development.

CONCLUSION

Under section 404, a program has been developed which is impractical, virtually impossible to administer, and will result in unwarranted delays in producing the minerals which this Nation so badly needs to maintain a viable economy and provide a greater degree of national security. The American Mining Congress urges that the regulatory authority over the discharge of dredge or fill material into navigable waters be restricted to discharges into truly navigable waters.

Thank you.

Senator RANDOLPH. Thank you, very much, Mr. Barthauer.

Many of us in the Senate and the House come from States that are substantial coal producers, both deep and surface mining. I am interested in an aspect that I wish you would address.

In what stage of the advancement of a new mine would submission of a permit application be made? When is it done? When do you proceed with the application?

Mr. BARTHAUER. Just as soon as you have developed the concept of a probable operation, where you have potential customers and you have completed your analysis, and you know you have a large enough field with sufficiently high quality coal or ore to be able to exploit it profitably. After this, you normally would apply for your permit.

Senator RANDOLPH. You mean after the mine has been opened and is in production, is that what you are saying?

Mr. BARTHAUER. No, no, quite to the contrary. Only after you—after drilling and exploration—have determined what the deposit is; that you do have sufficient coal there for a profitable operation. Of course, you must have your permits before you can open that mine. In fact, you must have your permits before, most importantly, you can commit capital for opening that mine.

Senator RANDOLPH. Then you are saying it is in the early stages of the development of the mine?

Mr. BARTHAUER. Right.

Senator RANDOLPH. Is there any delay in the opening of a mine that could or does result from the requirement of the issuance of a permit?

Mr. BARTHAUER. Oh, yes.

Senator RANDOLPH. Tell us about that, sir.

Mr. BARTHAUER. I think all you have to do, Senator Randolph, is to look at the northern Great Plains program and the difficulty which Interior has had in being able to issue leases and approve new mining applications in that area until the environmental impact statement has been prepared for the entire northern Great Plains area. I believe the leasing moratorium started in about 1971.

Senator RANDOLPH. Do you have an estimate of the number of permits that are issued under the current section 404 regulations that would be required in a coal mining activity or activities?

Mr. BARTHAUER. Of course, it would depend on where that activity is located. I might take a particular coal mine in the State of Illinois and from comparing what I know of the hydrology of that area, the number of permits that we perhaps would require, assuming that we didn't have general permits—and I think this is a faint hope there could be perhaps as many as 8 or 10 during the life of that mine—we would need permits for stream crossings of various types.

We would need permits for culverts to protect the stream for the preparation plant. We would need permits for any activity. If we had to do any rerouting of a stream, we would need a permit for that.

Senator RANDOLPH. Has the Corps suggested a section 404 permit with reference to the items you are suggesting?

Mr. BARTHAUER. Yes; we have talked with the St. Louis district.

Senator RANDOLPH. Pardon?

Mr. BARTHAUER. We have talked with the St. Louis district Corps and section 404 seems to be the type of permit that they believe is necessary for the type of operation that I just described.

Senator RANDOLPH. That is surface mining?

Mr. BARTHAUER. Right.

Senator RANDOLPH. Does the permit contain a regulatory feature that applies to land reclamation?

Mr. BARTHAUER. Does the requirement for reclamation involve the application? Is that your question?

Senator RANDOLPH. Yes; I am interested in the reclamation feature because certainly that is a part of the surface mining program, is it not?

Mr. BARTHAUER. Right.

Senator RANDOLPH. How does the permit situation work? Does the Corps monitor the permit?

Mr. BARTHAUER. In the particular case of reclamation, you submit your mining and reclamation plans to the proper regulatory group at the State level. Then, of course, you are committed to that reclamation plan. That is entirely separate from the section 404 procedures.

Senator RANDOLPH. That is all I wanted to clarify. They haven't suggested they have any regulatory power, is that correct?

Mr. BARTHAUER. The Corps has no regulatory power over the reclamation.

Senator BURDICK. I have one question. I was listening carefully to what you said about moving your equipment. When you move across a mountain stream or something, you might find it necessary to go to a causeway and then remove it afterwards?

Mr. BARTHAUER. Right.

Senator BURDICK. And you would have to get a permit under section 404 to do that?

Mr. BARTHAUER. That is right.

Senator BURDICK. You were concerned about the time factor.

Mr. BARTHAUER. About the administrative delays in processing that permit and all of the obstacles we might have in trying to get a permit in hand to do that, right.

Senator BURDICK. Since this involves fill, then this might trigger section 404 also?

Mr. BARTHAUER. This would trigger section 404. We would have to have a permit.

Senator BURDICK. Then you have to have NEPA clearance, too.

Mr. BARTHAUER. That is a potential, of course, for NEPA clearance.

Senator BURDICK. As I see the act here, there is an exception for section 402, but not exception for section 404.

Mr. BARTHAUER. Section 404, it is my understanding, and you may correct me on this, states that the Corps has the authority to delcare this as an act which is not of sufficient significance to require the preparation of an environmental assessment or an environmental impact statement. The Corps has the authority to do that, but whether or not that declaration would stand up if someone wanted to challenge it, is another question.

Senator BURDICK. But it could require an impact statement for this causeway?

Mr. BARTHAUER. Very much so, which, as you know, would take up to 2 years.

Senator RANDOLPH. Thank you, very much, Mr. Barthauer.

STATEMENT OF LOUIS CLAPPER, NATIONAL WILDLIFE FEDERATION

Mr. CLAPPER. Senator, I am Louis Clapper, conservation director for the National Wildlife Federation. With me is Kenneth S. Kamlet, the federation counsel, who assisted in the preparation of this statement and he also will be available to answer questions. We welcome the invitation to appear here tonight. I was present last night and also enjoyed the colloquy there. We provided the committee staff with a detailed statement. I would like to point out that in your folder is a list of 21 organizations and 13 affiliates of the National Wildlife Federation which endorsed or asked to be associated with the principles of the detailed statement. Collectively, these groups represent millions of Americans.

Also on hand to help answer questions are two distinguished ecologists: Dr. Laurence Jahn, of the Wildlife Management Institute, and John Clark, of the Conservation Foundation.

Water pollution control has been a major objective of the National Wildlife Federation since its organization in 1936. Our concerns have related to the values of clean water for public health, agricultural, and industrial purposes as well as for fish and wildlife and outdoor recreation.

Overall, we have been disappointed with the rate of progress toward achieving by 1985 the national goal of eliminating discharges of pollutants into navigable waters. And, we view H.R. 9560, as passed by the House, as a giant step backward.

As Senator Muskie pointed out last night and tonight, it is probable that none of us would be here tonight were it not for a deceptive press release issued by the Office of the Chief of Engineers on May 6, 1975. Widely disseminated, this release threatened farmers who plowed their fields and ranchers who enlarged their stock ponds with a $25,000 fine and jail term if they failed to obtain a permit under regulations being proposed by the Corps of Engineers. A deluge of protests from rightfully angry citizens flooded corps' offices as well as Capitol Hill.

The inflammatory release was a final effort of the corps to avoid expanding its jurisdiction. Decisions by the courts had confirmed contentions that the corps was improperly and illegally limiting itself in regulating dredged and fill waterways. In desperation, the corps took its case to the press and the effort backfired. The May release was roundly criticized by Members of the Congress, administration officials, and conservationists as being both inflammatory and distorted. Editorial writers condemned the scare campaign.

The corps saw the light. Not only was the release retracted but, on July 25, the corps issued interim final regulations under section 404 which made it quite clear that farmers, foresters, and ranchers would not require permits from the Army to engage in their normal activities. Moreover, the corps and the Department of the Army have shown over the last year reasonableness and moderation in administering the 404 program, relying heavily on the use of blanket general permits to ease the task.

That these efforts have succeeded in resolving the concerns of most Americans is indicated by the large numbers of citizens who have indicated their support for section 404 protection of all waters of the United States. For example, of the 2,084 public comments received on

the July 25 interim final 404 regulations, more than 53 percent—or 1,040—of those expressing a clear opinion, favored an expanded program—893 opposed program expansion.

We believe that the Corps of Engineers has demonstrated that it will not abuse its authority. The American people have demonstrated their support for a 404 program which protects all waters—and not simply classically navigable waters—of the United States. We believe the Corps' present regulations are sound and workable. The Corps should be given a chance to carry on.

I would like to take the balance of our time to explain what interests are at stake in this section 404 program. We feel that every living American and their children and grandchildren, every one of our interests are in pure water, abundant fish and wildlife, and a healthy environment. At the heart of their concern and ours are the effects that changes in section 404 will have on the protection of important inland and coastal wetlands.

Put in economic terms, a single acre of coastal wetland has a value to society ranging from $50,000 to $80,000, with fresh water wetlands being valued at up to $50,000 an acre.

Wetlands offer all of the following benefits without cost and without depleting our energy resources:

One: They provide spawning and nursery areas for commercial and sport fish and shellfish.

Two: They provide natural treatment of waterborne and airborne pollutants.

Three: They recharge the groundwater for public water supply.

Four: They provide natural protection from floods and storms.

Five: They provide essential nesting and wintering areas for waterfowl.

Six: They are a high-yield food source for aquatic animals and waterfowl.

Seven: They constitute an important filtration system for lakes and streams.

At least two-thirds of the cash value of fish and shellfish species harvested on the Atlantic and Gulf coasts depend on coastal wetlands and estuaries. The landed value of shrimp alone exceeded one-quarter of a billion dollars in 1975. This figure does not include the additional profits and jobs associated with handling, transporting, processing and marketing this seafood.

Ninety-eight and a half percent of the commercial seafood harvest in Maine in 1975 consisted of species dependent on estuaries for at least part of their life cycles.

In Louisiana, fishermen spend an estimated $160 million a year just on sport fishing.

Inland, freshwater wetlands offer vital breeding, feeding, resting, molting, and wintering grounds for all migratory waterfowl. They are also essential to at least 19 species of small game, 7 species of big game, and 11 species of fur-bearing animals. Without them, the 27 million fishermen and 16 million hunters who held licenses in 1974 might just as well turn in their rods and guns.

At least 60 Massachusetts cities and towns have water supplies dependent upon wetlands. A study by two agricultural economists concluded that wetlands with a high potential for municipal water supply are worth $60,000 or more per acre for that purpose alone.

Without wetlands, the current $4 billion a year cost of flood damage to the U.S. taxpayer would probably rise sharply.

Wetlands a few hundred acres in size purify the water and air of tons of pollution a day, and help replenish the atmosphere's oxygen supply besides. One study found that a 1,000-acre marsh could purify the nitrogenous wastes of 20,000 people.

Wetlands retain silt and sediment carried by floodwaters which otherwise would deposit them in navigation channels and shellfish beds.

We discuss these and other wetland functions in greater detail on pages 22 through 30 of our prepared statement, which I hope has been filed with your staff.

A professor of forest and wildlife management at the University of Rhode Island sums things up nicely. He said:

> It is high time that the Federal Government took strong leadership in the area of wetland protection. Waterfowl and marsh bird populations have suffered enough habitat destruction; enough homes have been washed from stream floodplains; enough groundwater supplies have been irreparably polluted from garbage dumps and road salts. To strip the Army Corps of Engineers of their recently granted jurisdiction over all wetlands of the United States would suggest that my work, and the work of the people like myself is all for naught.

To cut back on the section 404 program also would suggest that the work of the Congress in passing a strong water pollution law had been largely for naught at least in part.

Wetland losses in this country have been alarming. Of the 127 million acres of wetlands during colonial days in what are now the lower 48 States, more than half, have been destroyed.

High rates of loss have been experienced within the past two decades in Minnesota, the Dakotas, California, Mississippi, Wisconsin, Connecticut, and many other parts of the country. In the Southeastern United States, 3 to 4 million acres of bottomland forest floodplains have been destroyed since 1950 by Federal projects alone.

The statistics paint a truly bleak picture. The Nation's wetlands are in trouble.

These wetlands, that are so valuable to society, unfortunately are valued by the marketplace only when they are drained or developed. Only the Congress can insure that they are protected for the benefit of this and future generations.

The last thing we need is to further relax what controls now exist to protect the vital national treasures which are our wetlands.

To conclude, Mr. Chairman, we are providing the committee with a number of documents and references which relate to the value of wetlands. These are:

First: A list of other organizations endorsing our testimony.

Second: Comments submitted by other organizations and individuals on section 404 and the action taken by the House, including a letter from the chairman of the Department of Marine Sciences of Louisiana State University.

Third: Research reports on the economic value of wetlands from scientists at the University of Georgia, Rutgers University, and the University of Massachusetts.

Fourth: Research reports on the public service value of wetlands from scientists at the Georgia State University, New Mexico State University, and Connecticut College.

Fifth: A copy of the NRDC versus Callaway court decision and excerpts from seven of the several other court decisions which have interpreted jurisdiction under the Water Act in the same way.

Sixth: Copies of the infamous May 6 Corps press release of last year and of some of the correspondence and media reaction generated as a result of it.

Seventh: A tabulation of comments received by the Corps of Engineers indicating widespread public support for the Corps' present regulatory program.

Eighth: Examples of Corps efforts to proceed in a reasonable way to carry out the 404 program.

Copies of the first two of these items—the list of endorsements and some of the comments received from other organizations and individuals—have been made available to each member of the committee.

We ask that the full set of these materials be incorporated into the hearing record.

Senator RANDOLPH. We will have all of the material as a part of the record.

Mr. CLAPPER. Thank you.

Senator RANDOLPH. One question only. I understand that in the State of Alabama there are scores of ponds that have been created for the specific purpose of fish production, notably catfish. A new industry has come into being. Is this true?

Mr. CLAPPER. This is very true through many parts of the South. Arkansas has a commercial catfish production program. Many States throughout the South where you have a long growing period for fish is a very popular and a profitable operation.

Senator RANDOLPH. The reason I bring this up is that those ponds were not originally there, but have been created for the purpose of propagation of fish.

Mr. CLAPPER. That is correct.

Senator RANDOLPH. How were those ponds brought into being?

Mr. CLAPPER. They were created either on small streams or from water catchment basins of some sort or another.

Senator RANDOLPH. Sometimes governmental, sometimes private, is that correct?

Mr. CLAPPER. That is correct.

Senator RANDOLPH. Then it is an entirely new industry?

Mr. CLAPPER. Cost sharing is quite prevalent.

Senator RANDOLPH. Cost sharing?

Mr. CLAPPER. Yes; I mean the Federal Government is not in this picture. It is largely in the State and the other groups that cooperate with the establishment of, in some cases, the farm pond programs. The Soil Conservation Service cost share them as well. But they are very prevalent and very popular and very fine, we think.

Senator CLAPPER. Thank you, Mr. Clapper.

Mr. CLAPPER. Thank you.

[Mr. Clapper's statement and exhibits follow:]

TESTIMONY OF LOUIS S. CLAPPER AND KENNETH S. KAMLET ON BEHALF OF THE NATIONAL WILDLIFE FEDERATION BEFORE THE SENATE COMMITTEE ON PUBLIC WORKS, OVERSIGHT HEARINGS ON SECTION 404 OF P.L. 92-500, JULY 28, 1976

Mr. Chairman, Members of the Committee, I am Louis S. Clapper, Director of Conservation for the National Wildlife Federation, which has its headquarters at 1412 Sixteenth Street, N.W., here in Washington, D.C. Kenneth S. Kamlet, who assisted in the preparation of this testimony, is counsel to the Federation. He will be available to answer questions from the Committee. The Federation is a private, non-profit organization which seeks to attain sound conservation goals through educational means. Affiliates of the National Wildlife Federation are found in all 50 states, Guam, Puerto Rico and the Virgin Islands. Affiliate members, Associate members, and supporters together number approximately 3 1/2 million individuals, making the Federation by far the largest private conservation organization in the United States.

The issue before this Committee has nothing whatever to do with the interests of a few Washington-based environmental groups versus the interests of many farmers, timbermen, road-builders, miners, and developers. The interests at stake are those of every living American and of their children and grandchildren in pure water, abundant fish and wildlife, and a healthy environment.

These interests are not inconsistent with the production of food and fiber and continued economic growth. What is needed--and what was provided for in P.L. 92-500--is blanaced growth which respects environmental values.

The Federal Water Pollution Control Act Amendments of 1972 ("FWPCA")--Public Law 92-500--established a comprehensive program for preserving and enhancing the "chemical, physical, and biological integrity of the Nation's waters" (Section 101(a)). Whereas in the past, federal protection had been accorded only to "interstate" bodies of water, or to waters which were commercially "navigable," the FWPCA recognized the ecological inter-relationship and inter-dependence between interstate and intrastate waters, between navigable waterways and their non-navigable tributaries, and between each of these and associated wetlands areas. Interstate and navigable waterways could not be kept free of pollution, if the tributaries and wetlands which nourish them were left unprotected and allowed to deteriorate. In the words of the Senate Report: "Water moves in hydrologic cycles. . .and therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries." S. Rept. No. 414, 92d Cong., 1st Sess. 77 (1971).

The absence of a more explicit definition of "navigable waters" in Section 502(7) than "all waters of the United States," was explained as follows by the House Report (No. 911, 92d Cong., 2d Sess. 131 (1972)):

> One term the Committee was reluctant to define was the term "navigable waters." The reluctance was based on the fear that any interpretation would be read

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> narrowly. However, this is not the Committee's intent. The Committee fully intends that the term "navigable waters" be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes. (Emphasis added).

No matter how often the opponents of pollution control say that Judge Robinson misconstrued the intent of Congress in holding, in NRDC and NWF v. Callaway, that Section 404 covers discharges into "all waters of the United States," the fact remains that the Judge was simply and accurately interpreting the plain language (see Section 502(7)) and equally plain legislative history of P.L. 92-500. And no matter how many Members of Congress, who might like to see Section 404 changed, say that the Court went beyond what they intended, the fact remains that Section 404 (covering disposal of dredged material) and Section 402 (covering disposal of everything else) have exactly the same scope, yet none of these Members have been heard to complain that Section 402 goes further than they intended.

Statements by Senator Muskie of this Committee, who more than any other Member of Congress deserves credit for the Water Act and what it says, strongly refute those who contend that Congress never meant for Section 404 to have any greater scope than Sections 10 and 13 of the Rivers and Harbors Act of 1899:

> Prior to the enactment of the 1972 amendments, Federal responsibility for water pollution control was limited to approval of State water quality standards and associated implementation plans for interstate streams. Interstate streams were defined administratively to include only a small portion of the Nation's surface waters. Few sources of pollution were actually subject to Federal abatement action. The result was an inade-

> quate unsystematic water pollution program which was in no way responsive to the Nation's demand for clean water.
>
> The only significant enforcement tool available to the Environmental Protection Agency was the little-known 1899 Refuse Act which barred the discharge of material into the Nation's navigable streams without a permit. The decision to use that statute, combined with the recognition of the inadequacy of the water quality standards approach to pollution control led the Congress to revise the basic national water pollution law.
>
> .... Also, in 1972, the Congress broadened the traditional definition of navigable waters in recognition of the fact that pollutants migrated into the Nation's waters through water courses, swamps, creeks, and underground sources, many of which were simply not "navigable" in the traditional sense but the pollution impact was sufficient to merit regulation.
>
> Cong.Rec. S 9760-62 (June 5, 1975).

Public Law 92-500 is and was intended to be a water pollution control law--not a navigation law. If Congress had wished to stick with the 1899 definition of navigable waters, there would have been no need whatever to include the discharge of dredged and fill material among the matters given specific attention in the Water Act Amendments of 1972. The fact is, and this is reflected by the Act's definition of the term "pollutants" to include "dredge spoil," that dredged material can be every bit as damaging to the water quality, to the survival of fish and wildlife, and to human health and welfare, as any other pollutant.

Indeed, dredged material--sediment dredged up from the bottom of rivers and harbors--if it comes from a location that is polluted with sewage or industrial chemicals, will itself be polluted with these very same constituents.

Dredged material from the Hudson River can be and probably is polluted with PCBs. Dredged material from the James River can be and probably is polluted with kepone. Dredged material from Antietam Creek--a tributary of the Potomac--can be and probably is contaminated with DDT and PCBs. Dredged material from the waterfront near the Bogle Chemical Company in Alexandria can be and probably is polluted with arsenic, mercury, pesticides, herbicides, and PCBs.

Do the members of this Committee wish to tell the American people that they don't care if PCBs, DDT, kepone, mercury and arsenic get heaped into their lakes, rivers, and wetlands--as long as these waters are not "navigable"? Do the members of this Committee wish to tell the American people that the Shenandoah River, the Okeefenokee Swamp, and the Florida Everglades, are not the concern of the Federal Water Pollution Control Act or of this Congress? Do the members of this Committee wish to tell the American people that farmers, foresters, road builders, and developers--as important as their contributions are to the American economy and to American life--do not have the same responsibility as everyone else to preserve the environment against needless degradation? Do the members of this Committee and this Congress want to tell the American people that they don't care whether or not our children and grandchildren have the benefits of wetlands and clean lakes and rivers and the fish and wildlife which depend upon them?

Is this the present which this Committee and this Congress wish to give to the Nation on its two-hundredth birthday?

For all our sakes, we hope not.

The Members of this distinguished Committee have before them a number of bills seeking to amend P.L. 92-500, by reducing or modifying the coverage of Section 404. Most of these, including the Wright-Breaux amendment which passed the House, were ill-conceived, not necessary even to serve the purpose for which they were ostensibly intended, and extremely damaging in their potential impacts on this Nation's ability to safeguard its aquatic resources for future generations.

Only one bill which we have seen, the Hart-Cleveland bill, addresses responsible concerns about Section 404 in a measured, moderate, and carefully considered way. This bill, which was co-sponsored in the House by Representatives James C. Cleveland and William H. Harsha (and which was reintroduced in the Senate as S. 3663), earned the support not only of most environmentalists, but of most of the Executive Branch--including the President, and even of one of the country's largest farming organizations, the National Farmers Union. We are persuaded that this bill was not adopted by the House only because of the skillful efforts of Congressman Jim Wright who was able to persuade a majority of the Members that his own bill--introduced on the morning of the vote, without hearings, and without any opportunity by the Members to evaluate it--was a compromise acceptable to everyone. In fact, as we shall demonstrate, nothing could be further from the truth.

Congressman Wright could not be more wrong.

The Wright bill was a direct outgrowth of an amendment offered by Representative John Breaux at a House Public Works Committee markup session. The Committee

adopted the Breaux amendment, not only without prior hearings, but without even prior Subcommittee review. The Breaux amendment purported to do 2 things:

(1) Restrict the definition of "navigable waters," for purposes of Section 404, to waters presently used or susceptible to use as a means to transport interstate or foreign commerce.

(2) Exclude discharges of dredged or fill material into waters and wetlands not covered by the new definition from prohibition or regulation under any other provision of the Water Act (including Section 402), or under Sections 9, 10, or 13 of the 1899 Rivers and Harbors Act.

This amendment was incorporated in H.R.9560 by an April 13 vote of the House Public Works Committee--without, it should be noted, either hearings or Subcommittee consideration.

Mr. Breaux said his amendment was necessary to "redirect the Corps to the environmental protection mission envisioned by Congress when the 1972 amendments were enacted." He felt that under his amendment, "the Corps would guard against pollution from dredged or fill material which impact on or result from maintenance of the nation's commercial waterways," and [we] would be free of the current [Corps] regulations which give the District Engineer of the Corps the prerogative of designating any isolated tract of land, however far removed from any body of water or tributary, as 'wetland' and under the scope of 404."

Unfortunately, Mr. Breaux's amendment went far beyond its stated purpose.

Its restrictive definition would have removed federal protection from 85% of the nation's wetlands and from many rivers and other waters--including many regulated even under the 1899 Rivers and Harbors Act. The Breaux amendment would therefore not have served its stated purpose of guarding against pollution from dredged or fill material which results from the maintenance of the nation's commercial waterways--since much dredged material derived from maintenance dredging activities is deposited on or in the very wetlands and waterways removed from regulation by the Breaux amendment.

And, while it would have accomplished Mr. Breaux's purpose of restricting the Corps' discretion to regulate areas designated as "wetlands," it would have gone much further. By effectively excluding from all federal regulation any discharges of dredged or fill material outside of narrowly defined "navigable waters," the Breaux amendment would have effectively tied the Federal (and, in some circumstances under Section 402, even State) government's ability to protect public health and the environment against very harmful pollutants. For example, powdered arsenic or any other solid pollutant could be deposited as a "fill" material in any water or wetland outside the Breaux amendment's narrow definition of "navigable waters," and not be subject to the pollutant discharge requirements of Section 402.

The Breaux amendment was a disaster.

After reviewing the amendment, the Fish and Wildlife Service stated that it posed "such potentially enormous losses of and damage to the Nation's fish, wildlife, and water resources as to warrant opposition to H.R.9560 [as a whole] ...." The Environmental Protection Agency emphasized that the Breaux amendment "would undermine many of the goals and policies declared in the Federal Water Pollution Control Act" and "limit our ability to coordinate environmentally sound decisions concerning discharges of dredged or fill material into water." The President's Council on Environmental Quality noted rather tersely that the Administration, "of course," did not support the Breaux amendment.

When it came time for the House to vote on H.R.9560, no effort was made to pass the Breaux amendment in its original form.

In the meantime, another proposal was made to amend Section 404, but this time in a moderate, reasoned, and carefully circumscribed way. The proposal submitted by Representatives Cleveland and Harsha on May 26, would have done three things:

(1) Retain intact the definition of navigable waters and the relationship of Section 404 to other parts of the Act, but provide exemptions from permit requirements for three classes of dredge and fill discharges--

(a) those resulting from normal farming, silviculture, and ranching activities for the production of food, fiber, and forest products;

(b) those placed for the purpose of maintenance of currently serviceable structures; and

(c) those placed for the construction or maintenance of farm and stock ponds and irrigation ditches, and the maintenance of drainage ditches.

(2) Provide specific authorization to the Corps for the issuance of expedited general permits for categories of activities with minimal adverse individual or cumulative environmental impact.

(3) Require the Corps to file a detailed report to the Congress by the end of 1977, on the implementation of Section 404 and the objectives of the Act.

The exemptions created under this approach would have alleviated many of the concerns about overregulation of farmers, foresters, and ranchers. Although most of the exclusions provided were already embodied in the Corps' "Interim Final" regulations, they went beyond those regulations in providing exemptions for the construction (as well as maintenance) of farm ponds, stock ponds, and irrigation ditches. Incorporating the exclusions as a whole into the legislation would also have removed the concern, entertained by many, that "what the Corps gaveth, the Corps could taketh away."

The "general permit" provision of the Cleveland-Harsha bill also would have incorporated into law an approach adopted administratively by the Corps. Again, this would have eliminated concern that the Corps might later change its mind, or that a Court of law might decide that the Corps lacked statutory authority to issue general permits. The availability of general permits would greatly reduce the impact of Section 404 on farmers, foresters, and many others--even where there was no total exemption from permit requirements.

Lastly, the reporting requirement was designed to enable the Congress to monitor the program and determine how it was working in practice. If problems arose and legislative changes were called for, Congress would then be in a position to remedy things. Extensive changes would not be made merely on the basis of conjecture or speculation about what might happen in the future.

The Cleveland-Harsha bill earned the support of most conservationists, of the National Farmers Union, and of Administration officials, up to and including the President. We wish to submit for the record, copies of some of these statements of support.

Unfortunately, the House was never given an opportunity to vote on the Cleveland-Harsha amendment.

On June 3, 1976, when H.R.9560 came before the full House for a vote, Representative Cleveland got no further than offering his amendment when Representative Jim Wright offered as a substitute for the Cleveland proposal a brand-new amendment, which had been made available to the Members only since that morning. Congressman Wright emphasized his belief that the Wright substitute "answers the legitimate concerns of both sides." He also argued that: "It will protect the important wetlands from exploitation. It will protect the Congress from executive and judicial lawmaking and also it will protect the citizens from the needless harassment by an overzealous regulatory agency."

In fact, the Wright amendment is just as bad as the Breaux amendment. When Congressman Ashbrook asked Mr. Breaux whether "there [was] something lacking in [the Breaux amendment] that is now being rectified by the Wright amendment," Mr. Breaux candidly acknowledged that the "main thing that was lacking was votes." And properly so. But that didn't stop the silver-tongued orator from Texas (Mr. Wright) from persuading his fellow Members to adopt his "compromise."

The Wright amendment purports to do 8 things:

(1) Restrict the definition of "navigable waters" in the same way as the Breaux amendment (Paragraph (d)(1)).

(2) Add to the jurisdiction over navigable waters (but outside of the revised definition of this term), jurisdiction over "adjacent wetlands" (Paragraph (d)(2)).

(3) Exempt, from regulation or prohibition under any other provision of the Water Act and under Sections 9, 10, and 13 of the 1899 Rivers and Harbors Act, dredge and fill discharges into navigable waters (as redefined) or adjacent wetlands (Paragraph (e)).

(4) Exempt various activities from permit requirements in much the same way as the Cleveland-Harsha amendment (Paragraph (h)).

(5) Authorize the issuance of general permits in the same way as the Cleveland-Harsha amendment (Paragraph (g)).

(6) Provide for the regulation of waters other than navigable waters (as redefined) or adjacent wetlands, where the Governor of the State and the Chief of Engineers jointly agree that these waters should be regulated because of their ecological and environmental importance (Paragraph (f)).

(7) Exempt from the need for a permit, dredge and fill discharges which are part of the construction, alteration, or repair of a Federal or federally assisted project authorized by Congress, if an environmental impact statement or environmental assessment is submitted to Congress in connection with authorization or funding of the project (Paragraph (i)).

(8) Authorize the Corps to delegate permit functions to a State if the Corps determines (A) that the State has the capability to carry out such functions, and (B) that such delegation is in the public interest. It would also subject any delegation to terms and conditions deemed necessary by the Corps, including suspension and revocation for cause (Paragraph (j)).

Of these 8 aspects of the Wright amendment, only 2--items 4 and 5 (Paragraphs (g) and (h))--are justified or appropriate. The Wright amendment, in its other aspects, would create the following problems:

(1) Like the Breaux amendment, its restriction of the scope of 'navigable waters' (item (1) and Paragraph (d)(1)), rolls the clock back not only prior to the 1972 FWPCA amendments,

but prior even to the coverage of navigable waters in the 1899 Rivers and Harbors Act. Among the waters and activities covered by the 1899 Act (as construed in September 9, 1972 Corps regulations, 33 C.F.R. § 209.260), not covered by the Wright and Breaux amendments are--

(a) Waters used in the past for interstate or foreign commerce, but no longer used for this purpose--perhaps because of the erection of dams or impoundments in the waterway. Examples would be the Potomac and Shenandoah Rivers.

(b) Intrastate waters used for commercial transportation of goods destined to go to another state, or where the intrastate body serves a link in interstate commerce (e.g., where goods are shipped across an intrastate lake from an interstate rail terminal on one side to an interstate rail terminal on the other).

(c) Non-Navigable tributaries of navigable waters from which pollutants may flow into navigable waters.

(d) Banks of navigable waters and their tributaries from which materials may wash into navigable waters.

(e) Waters used for interstate commercial purposes other than commercial transportation, such as interstate commercial recreation, fishing, or water supply.

Also, as in the case of the Breaux amendment, there would be no justification for restricting the coverage of Section 404 to classically navigable waters--even if the redefinition was identical to that in the 1899 law--because P.L. 92-500 is a pollution control law, not a navigation law.

(2) Moreover, the restriction in the Wright/Breaux amendment on the scope of "navigable waters," coupled with the bar against regulating dredge and fill discharges into waters outside the new definition (item (3) and Paragraph (e)), eliminates an important protection to human health against substances such as PCBs, DDT, kepone, mercury, and arsenic--all of which are often present in dredged and fill material as contaminants. In other words, contaminated dredged or fill material could be deposited in the Okeefenokee Swamp, the Florida Everglades, the Shenandoah River, or the Potomac not only without a Section 404 permit, but without even a pollutant discharge permit under Section 402.

(3) Indeed, not only does Paragraph (e) of the Wright/ Breaux approach make it possible to discharge toxic chemicals without regulation when those chemicals are present as contaminants in dredged or fill material, but it even makes it possible to deposit a pure poison (e.g., arsenic powder) as a "fill" material totally without regulation--as long as the fill is placed outside of what Wright and Breaux would regard as "navigable waters." That this is more than just a hypothetical problem is evidenced by the fact that the common meaning of "fill material," and the one incorporated in the Corps' Section 404 regulations is: "any pollutant used to create fill in the traditional sense of replacing an aquatic area with dry land or of changing the bottom elevation of a water body for any purpose." (See Section 209.120(d)(6) of the Corps' July 25, 1976 Interim Final Regulations, 40 Fed. Reg. 31319, et, seq.).

(4) Another potentially serious public health and environmental problem is created by the Wright amendment's alteration of one part of an integrated statutory scheme. On the one hand, since any coverage of wetlands allowed for by Wright is provided for outside of the definition

of navigable waters, there is a real question as to whether someone who discharges dredged or fill material into a wetland--even one covered by the Wright amendment--without a permit can be prosecuted (under Section 301) for violating Section 404. This is so, because Section 301, the only prohibition against discharging pollutants (including dredge spoil) without a permit, prohibits such discharges only when they are into "navigable waters." But wetlands are not "navigable waters" under the Wright amendment. On the other hand, even if one argues that navigable waters are defined more broadly in Section 301 than in the amended Section 404--so that Section 301 does cover wetlands--one reaches an even more absurd result: discharges into any navigable waters other than those specifically covered by the Wright amendment are illegal under any circumstances. This is so because Section 301 prohibits such discharges without a permit, and Section 404 (as amended by Wright) provides no permits for such discharges. That this is a realistic hypothesis is evidenced by the fact that a 1971 federal court decision construed similar discrepancies in the the 1899 Rivers and Harbors Act as making it illegal to discharge wastes under any circumstances into tributaries of navigable waters (i.e., the Act provided for permits only for navigable waters themselves, yet prohibited discharges without a permit into tributaries as well). Kalur v. Resor, 335 F. Supp. 1, 9-10 (D.D.C. 1971). P.L. 92-500 was passed just in time to correct this problem. The Wright amendment would bring back the problem--and make it worse.

(5) By allowing "Federal or federally assisted" projects to be exempted from all Section 404 regulation if an Environmental Impact Statement has been submitted to Congress (item (7) and Paragraph (i)), the Wright amendment could greatly restrict the opportunity of State and

local officials, as well as members of the public, to meaningfully influence where, whether, and under what conditions, major Federal activities will take place.

(6) The Wright amendment permits delegation to the States of the Corps' remaining Section 404 authority, without explicit guidelines or criteria for assuring that the recipient States are capable of assuming such authority, without providing funding to recipient States for program costs, and without providing for Federal reassumption of program authority (in individual cases, as well as program-wide) where a recipient State proves unwilling or unable to take appropriate action. The delegation provision also leaves unclear the recipient State's authority to regulate Federal projects, even those for which no Environmental Impact Statement is prepared. This is so because, absent specific statutory authority to the States to regulate Federal activities, the States may lack the constitutional power to do so. The delegation provision also ignores the need for coordinating pollution controls across State boundaries.

In addition to the foregoing considerations, a recent survey of State governments by the Interstate Conference on Water Problems indicates that as few as five States could be ready (in terms of legislative authorities, without regard to financial readiness), to receive a delegation of Section 404 authority in the foreseeable future. Since few States are ready now, why the rush to throw the program to the States? A legitimate argument may exist for eventual State delegation of some parts of the program. But surely such delegation can and should await the

development of a capability on the part of a meaningful number of States to properly discharge the delegated responsibilities. Moreover, unless Congress provides the Corps with very specific delegation criteria, the Corps will be forced to develop another set of (delegation) regulations--the type of "legislating" by the Executive Branch which Mr. Wright dislikes so much.

In short, the Wright amendment (as was true of the Breaux amendment before it) fails to protect the waters of the United States against being used as the nation's dumping grounds for polluted and unpolluted dredged material.

After the House passed H.R. 9560--including the Wright amendment--and paired it with S. 2710 (a Senate-passed money bill), the action, and the wild emotionalism which had characterized the debate in the House, shifted to the Senate.

On June 21, thirty Senators joined in a letter to the President, asking him to "direct the Corps of Engineers and the Environmental Protection Agency to delay implementation and enforcement of Section 404 regulations pending a final resolution of the problem by the Congress." Using the kind of overstatement that has so typified the Section 404 issue, the letter characterized the "proposed regulations dealing with Section 404" (they were not proposed, they were fully operative "interim final" regulations), as constituting an issue which has "inflamed the sensitivities of...a wide[r] group of Americans" than any other "[i]n the history of federal environmental legislation."

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The letter went on to accuse the Court (in NRDC and NWF v. Callaway) of misinterpreting the intent of Congress in defining "navigable waters" as "all waters of the United States," and said it would be "foolish" to "go forward with implementation of these regulations" in the face of the House action approving the Wright amendment. What the letter did not point out was that it would be illegal not to go forward with implementation of the Section 404 regulations. This is so for two reasons. First, the regulations were issued pursuant to direct court order. Second, any alteration in implementation dates laid out in duly adopted regulations may lawfully be made only through amendatory rulemaking action or by Act of Congress.

Despite the clear illegality of what was being requested, the President complied. On July 2, on orders from the White House, the Assistant Secretary of the Army (Civil Works) directed the Chief of Engineers to modify implementation of the interim final regulations by deferring Phase II permit requirements for 60 days. The only redeeming feature of this directive was that it called upon District Engineers to "continue to monitor all discharges of dredged or fill material into all waters of the United States and take appropriate administrative and enforcement action pursuant to [Corps regulations] with respect to any activity that will have serious impacts on water quality."

Perhaps the most unfortunate feature of this action to delay implementation of Phase II is that it eliminated any opportunity this Committee might have had to evaluate actual working experience (if only 28 days' worth) in administering Phase II. Indeed, only a few days earlier (on June 25), the Corps of Engineers, in announcing that Phase II would proceed as scheduled

on July 1, emphasized that "it will continue to use moderation and a reasonable approach in the administration and enforcement of the program," and that "[g]eneral permits which provide blanket authorization for comparable activities with no significant adverse environmental impact in designated areas will be issued as much as possible to make the program more manageable and practical by reducing the number of permits required."

The White House action made it impossible to test this resolve. It never gave Phase II a fair chance.

The moving forces behind the letter to the President and efforts in the Senate to "clarify the Congressional intent of Section 404" were Senators John Tower and Bob Dole. A year earlier, these Senators had sponsored bills of their own (S. 1843 and S. 1878) to restrict the scope of Section 404. The Dole bill is even worse than the Wright amendment. The Tower bill is about as bad.

S. 1843 and S. 1878 would both restrict the definition of "navigable waters" in the same way as in the Wright/Breaux amendment. The Tower bill (S. 1878) stops there. The Dole bill (S. 1843) goes on to do even more mischief.

Among the other things it would do are:

1. Delete jurisdiction over fill deposition altogether.
2. Limit regulated "dredged material" to that removed from a classically navigable waterway (i.e., material dredged from anywhere else would not be regulated no matter where it was discharged, even into a classically navigable waterway).

In support of their amendments, Senators Dole and Tower spoke of the Corps regulations as seriously encroaching "upon the most regular and simple farming activities," and as assuming "control over the activities of a great portion of our Nation's farmers." In fact, the regulations these two Senators were talking about were "proposed" regulations (and this wasn't even an accurate characterization of them). The interim final regulations issued nearly two months later (on July 25, 1975) made quite clear (and the Cleveland-Harsha bill would have made even clearer) that normal farming activities are exempt from regulation of their dredge and fill discharges.

Dole and Tower also relied heavily on "scare tactics" employed by the Corps of Engineers and the Department of Agriculture in early press releases issued by these agencies. The Corps press release was later disowned and retracted by the Department of the Army. The USDA release died a quiet death (except for continued references to it by scare-mongers on and off Capitol Hill).

Senator Tower strongly accused the judge in NRDC v. Callaway of usurping legislative functions by telling Congress it could not have meant what it said and substituting his own view of what Congress ought to have said. Nothing could be further from the truth, as a simple comparison of the Judge's order with the legislative history of P.L. 92-500 will demonstrate.

The Judge's order (392 F.Supp. 685) was very brief. In relevant part it said:

> Congress by defining the term "navigable waters" in Section 502(7) of the Federal Water Pollution Control Act Amendments of 1972, 86 Stat. 816, 33 U.S.C.§ 1251 et seq. (the "Water Act") to mean "the waters of the United States, including the territorial seas," asserted federal juris-

> diction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution. Accordingly, as used in the Water Act, the term is not limited to the traditional tests of navigability.

A copy of the full order is submitted for inclusion in the record.

The Court's conclusion may be compared with the following language of the House Report:

> The Committee fully intends that the term "navigable waters" be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes.

H.R. Rept. No. 911, 92d Cong., 2d Sess. 131 (1972).

This Committee can decide for itself whether the Court was interpreting the intent of Congress or manufacturing it.

Our analysis of the proposals to amend Section 404 and of the associated legal issues is now complete, except that reference must be made to S. 3663, introduced by Senator Gary Hart on July 2. This bill is virtually identical to, and shares the virtues of (see previous discussion), the Cleveland-Harsha amendment developed on the House side. If this Committee concludes that amendment of Section 404 is necessary, the Hart/Cleveland approach is, in our view, the responsible way to go.

Value to the Nation of Wetlands and Waterways Left Unprotected by the Wright/Breaux Amendment

At the heart of conservationists' concerns--and the concerns of millions of average citizens--about changes in Section 404 are the effects of such changes on the protection of important inland and coastal wetlands. Wetlands

perform all of the following functions at no cost and without depleting our energy resources:

1) provide spawning and nursery areas for commercial and sport fish and shellfish;

2) provide natural treatment of waterborne and airborne pollutants;

3) recharge the groundwater for water supply;

4) provide natural protection from floods and storms;

5) provide essential nesting and wintering areas for waterfowl;

6) constitute a high-yield food source for aquatic animals; and

7) provide an important filter system for lakes and streams.

Coastal wetlands (both fresh- and saltwater) play an essential role in the lives of fish and shellfish. Two-thirds or more of the cash value of species harvested on the Atlantic and Gulf coasts are estuarine dependent. Dr. Eugene Turner of Louisiana State University has shown that on a world-wide basis there is a direct relationship between the offshore harvest of shrimp and the total area of the salt marsh upon which that fishery depends. The production of blue crabs, clams, and shrimp--which rely on coastal wetlands--was down 7 to 8 percent in 1975, compared with 1974. As more coastal wetlands are drained, paved over, and destroyed, seafood production and marine life generally, can be expected to decline further.

Shrimp was the most valuable commercial seafood species in 1975, with a landed value approaching $226 million. Ironically, Texas--the State from which has come much of the pressure to curtail the Section 404 program--led the states in the shrimp catch for 1975: $87.9 million in landed value. These figures do not include the additional profits and jobs associated with handling, transporting, processing, and marketing this seafood.

In addition to commercial uses of the coastal zone, sports fishing in some areas is of even greater economic importance. For example, Louisiana alone has two million licensed fishermen. The average each coastal sports fisherman spends each year on sport fishing, according to a recent Georgia study, is $80. On this basis, $160,000,000 a year is spent in Louisiana for sport fishing.

Other important estuarine- and wetland-dependent species are menhaden, striped bass, bluefish, and spotted sea trout. Menhaden landings topped the 1975 statistics for commercial fish, while striped bass, bluefish and spotted sea trout ranked 1, 2, and 3 in recreational fishing statistics. White perch, weakfish, redfish, mullet and black drum also depend on coastal wetlands at key stages in their life cycles.

As an example of the importance of wetlands to fishery porduction in New England, the commercial fishing industry is one of the most stable and productive industries in the State of Maine, with a 1975 harvest valued at $48.5 million. Ninety-eight and a half percent of this harvest consisted of species dependent on estuaries for at least part of their life-cycles. Without estuaries, particularly the associated coastal marshes, three species--lobster, clams, and shrimp--which make up three-quarters of the total catch, would be seriously jeopardized.

In short, coastal wetlands are the basic link in the marine food chain that produces high quality, protein-rich seafood for man. These wetlands literally fertilize the sea for the benefit of man, waterfowl, fish, and wildlife.

It should be noted that, although the Wright amendment purports to encompass wetlands adjacent or contiguous to coastal waters, in fact it excludes those coastal wetlands which are inundated by fresh rather than salt or brackish water (amounting to the exclusion of at least one-third of the total coastal wetland acreage). The Wright amendment would also exclude even those saltwater wetlands which are associated with saline or brackish portions of non-navigable rivers (which empty into coastal waters, but are not themselves "coastal").

Inland, freshwater wetlands also perform vital ecological functions--despite the all-too-common misconception that only coastal wetlands are very important. (Representative Wright, for example, in the House debates on his amendment, argued that his proposal would protect the "important wetlands" from exploitation--as though the 70 to 75 percent left unprotected were unimportant.)

For example, inland wetlands offer vital breeding, feeding, resting, molting, and wintering grounds for all migratory waterfowl. The waterfowl of North America are, physically and legally, an international resource which the United States (under treaties with Great Britain, Mexico and Japan) is bound to protect. The critical factor in sustaining these waterfowl is the amount of available wetland habitat.

Waterfowl are important to and benefit not only the numerous hunters in the country and those who enjoy the taste of roast duck or goose, but the even more numerous birders, recreationists, and other outdoor enthusiasts who are uplifted by the sight of wild birds on the wing. Who among us wishes to deprive future generations of Americans of this opportunity?

Freshwater wetlands are also essential to many species of non-avian wildlife. Fish and Wildlife Service Circular 39 lists, for example, 19 species of small game, 7 species of big game--including bear, deer, elk and moose, and 11 species of fur-bearing animals--e.g., beaver, fox, mink, otter--which inhabit and depend upon wetlands.

Wetlands, in short, provide a valuable recreational resource for fishing, hunting, bird watching, hiking, and appreciation of nature. Data collected by the U.S. Fish and Wildlife Service show greater than 27 million fishing license holders and in excess of 16 million hunting license holders in 1974. In addition, wetlands of all sizes offer a recreational and educational experience for adults and children. The aesthetics of wetlands, with flourishing fauna and flora, may be "as close to nature" as some of us ever get.

In addition to the fish and wildlife benefits from both freshwater and salt water wetlands, however, all wetlands make other "public service" contributions

Wetlands play a major role in the hydrologic cycle. They hold back storm waters and reduce the severity of flooding, hurricanes, and ocean storms. At the same time, they play an important role in groundwater and aquifer recharge. Thus, wetlands act as hydrological buffers or reservoirs, releasing water during dry periods and holding it back during heavy rains and floods. Even small bogs, potholes and bottom lands can trap significant volumes of water following torrential rains or ice-thaws. Because of their water storage role, wetlands--undrained and intact--benefit farmers and ranchers who rely on wells for water supply.

According to one study by two Massachusetts geologists, "[a]t least 60 Massachusetts cities and towns have municipal water production wells in or very near wetlands." Dredged and fill material discharge in these wetlands will diminish the quality of these wetland aquifers. The value of such wetlands was estimated in another paper by two agricultural economists. They concluded that "a municipality can afford to pay $60,000 or more per acre for wetlands which have a high potential for municipal water supply." In the case of Massachusetts, "as much as 50%" of the wetlands fall in this category. We submit a copy of this economic analysis for the record.

Wetlands provide their flood control and water supply service without charge to U.S. taxpayers. Flood damage alone presently amounts to $3.8 billion a year (excluding the loss of 50 lives). Better care of now defunct wetlands might have prevented much of this damage. For example, a recent study of the 1973 Mississippi River flood concluded that its severity was attributable to waters being locked within channels instead of being allowed to spread over the floodplain and wetland areas.

Wetlands also play a vital role in pollution control. They trap, retard, or transform materials, such as pesticides, toxic metals, organic matter, and silt. The microorganisms found in wetlands break down air pollutants (e.g., sulfates) and water pollutants (e.g., nitrates). Wetlands act as living filters, removing nitrates and phosphates and storing these nutrients in their vegetation and bottom mud. At the same time, wetlands generate important amounts of oxygen--by way both of their plant-life and their nitrogen-fixing and sulfate-reducing bacteria.

A recent study demonstrated that a 512-acre marsh in Pennsylvania was able to reduce 7.7 tons of biochemical oxygen demand ("BOD"), 4.9 tons of phosphate, and 4.3 tons of ammonia-nitrogen, while producing 20 tons of oxygen--in a single day! Human technology can partially remove phosphates and nitrates from wastewater--but only by means of very costly advanced waste treatment facilities.

Another study found that a 10-mile Georgia swamp forest had cleansed a polluted stream of organic matter and caused coliform counts and dissolved oxygen values to return to a more favorable level.

A third study concluded that "a marsh of 1000 acres may be capable of purifying the nitrogenous wastes from a town of 20,000 or more people."

There are limits, of course, to the pollution-absorbing capabilities of a wetland. Excessive pollution (or changes in its physical make-up) can totally disrupt a wetland's ecological balance and transform it from an aesthetic, healthy and valuable resource into a smelly, polluted, mosquito-ridden liability.

Related to their treatment of chemicals, wetlands are important in trapping and retaining silt. Wetlands retain silt and sediment carried by flood waters which otherwise would wind up in navigation channels (necessitating costly maintenance dredging) and shellfish beds. These silt particles often carry pesticides and other pollutants. Wetlands help keep these out of the water. Keeping even pure silt particles out of the water is also important because suspended silt blocks sunlight, reducing photosynthesis and the growth of bottom plants and phytoplankton. Increased turbidity

also hinders feeding by many fish and may impair migratory and reproductive behaviors. A thin layer of silt, for example, can prevent oyster larvae from attaching and can suffocate fish eggs after spawning. Sediment accumulation on river bottoms can also adversely impact other bottom dwelling organisms.

What is an acre of wetland worth--not in terms of real estate values, but in terms of benefits to man? The answer is surprising. Drs. Odum, Gosselink, and Pope have estimated the total social value of coastal wetlands as ranging from $50,000 to $80,000 per acre. These estimates are based on detailed studies. Dr. Orie Loucks, a University of Wisconsin botanist, has found that one acre of freshwater wetland can be worth up to $50,000, based on the cost of replacing all of the functions these wetlands now perform.

Why isn't this high value of wetlands reflected in the marketplace? Why doesn't it encourage private conservation efforts? The answer is a familiar one: the dollar benefits apply to society as a whole, not to individual landowners. No spendable benefit accrues to the private owner who leaves wetlands alone to work for society.

In short, wetlands will survive to benefit society only if government protects them (or altruistic private citizens acquire them for preservation). Government protection is as much needed for wetlands not covered by the Wright amendment as it is for those that are. Unfortunately, unless the Federal Government provides this protection, no other governmental unit will do so (at least in the vast majority of States).

Inland streams and watersheds--even non-"navigable" ones--also perform a number of "public service" functions, including: (1) serving as the first step in retarding and holding back floodwaters; (2) preventing soil erosion; (3) providing spawning and nursery grounds for fish inhabiting larger streams and rivers; and (4) determining in many ways the water quality of downstream waters.

Of these, probably the most important role of small streams is in fish production. Most river fish throughout the country swim upstream to spawn, frequently moving into the smallest of tributaries and small streams. In addition, the anadromous fish--salmon, shad, river herring--depend on the upper reaches of small streams and tributaries. Of these fish, salmon was listed as second in value among 1975 commercial fish landings.

Thus, the exclusion of waterways as well as wetlands by the Wright amendment, could have disastrous consequences--not only for the environment, but also for the economy.

Wetland Losses in the United States

Two hundred years ago, what are now the lower 48 states contained an estimated 127 million acres of wetlands. Twenty years ago at least 45 million acres of our primitive marshes, swamps, and seasonally flooded bottomlands had been lost to dry land uses through clearing, drainage, and flood control. Within the last 20 years, an additional 6 million acres have been lost.

Although estimates vary as to the proportion of original wetland acres remaining, some authorities believe more than half have been lost, and at least one (Dr. Kai Curry-Lindahl, an internationally reknowned ecologist) has stated that: "Of the 127 million acres of wetlands existing in the United States in Colonial times, more than 100 million acres have been drained."

Of the 6 million acres of wetlands destroyed in the last 20 years, "about one-half of this area," according to Fish and Wildlife Service Director Lynn A. Greenwalt, "had significant value to waterfowl."

Thus, important waterfowl breeding grounds and habitat areas in North and South Dakota and Minnesota were lost during the mid-1960's at the rate of $35,000 acres a year. Between 1964 and 1974, Minnesota alone lost over 40% of its prime waterfowl habitat, representing 24% of its remaining wetland acreage. In the Dakotas, 100,000 to 150,000 wetland acres were drained between 1960 and 1970, so that by 1970, the wetland acreage in North Dakota had declined from an original 3 million acres to 2 million.

A recent study conducted for the National Park Service (entitled, "Inland Wetlands of the United States"), surveyed 358 significant inland wetlands in the lower 48 states.

After summarizing the environmental encroachments on these wetlands, the survey concluded that the picture presented was "alarming." Among the encroachments described were the following:

1. Lincoln Marshes, Nebraska

   Acreage: 2000 estimated

   Encroachment: "City may fill these areas. Salt Lake in Lincoln has already been taken over for a housing development."

2. West Virginia

   "Innumerable threats have been reported on the limited wetland resources of this state."

3. Delaware

   "Major threats include cutting, draining, and development. In 1955, 76% of the state's wetlands were considered safe, but by 1959 only 23% were in this category (USDI, 1959)."

The U.S. Fish and Wildlife Service's 1970 National Estuary Study concluded that 73% of the estuaries having significant fish and wildlife value were moderately to severely degraded by 1969. Nearly 666,000 acres of coastal habitat were destroyed as a result of dredging and filling operations alone between 1950 and 1969, including 427,000 on the Gulf coast.

The highest rate of loss was found in California where 12% of its coastal wetlands were destroyed during this 20-year period, leaving less than a third of California's coastal marshes intact today. Total wetland losses (coastal and other) in California have been even greater, with only 400,000 remaining of some 3.5 million acres.

By 1969, more than 70% of the original 24 million acres of flooded bottomland hardwood timber of the Mississippi Delta had been cleared, drained and placed into agricultural production. Clearing and drainage is presently taking place at a rate of 200,000 acres every year. The future looks bleak for the one-third of the Mississippi Flyway's wintering waterfowl which depend on these flooded bottomlands. The forestry industry is probably not too delighted either.

In the Southeastern United States, 3 to 4 million acres of bottomland forest floodplains have been destroyed since 1950 by federal projects alone.

By the 1960's, 65% of the rainwater basin wetlands and 15% of the sandhill wetlands in Nebraska had been lost on an acreage basis.

In Wisconsin, 54% of the wetland acreage had been drained in its southeastern counties by 1958. Another 7% were lost between 1959 and 1968.

Between 10 and 15 percent of the true estuarine environment had been wiped out in New York, New Hampshire, Connecticut, and New Jersey, by the late 1960's.

At least fifty percent of Connecticut's tidal marshes have been obliterated, with the destruction continuing to eat into the remaining 14,000 acres at the rate of about 200 acres every year.

These statistics--which are just some of the ones we were able to find on short notice--paint a truly bleak picture. The Nation's wetlands are in trouble. The last thing we need is to relax further what controls now exist to protect these vital national treasures.

Summary and Conclusions

In conclusion, the wetlands and waterways excluded from federal protection by the Wright/Breaux amendments, and by the proposals of Senators Dole and Tower, represent valuable and irreplaceable national resources. They perform vital functions in producing and supporting fish, wildlife, and waterfowl. They

provide free pollution control, flood protection, and water supply benefits. They are worth protecting, in short, for sound economic as well as environmental reasons.

Moreover, the same properties of wetland soils that make them efficient removers of pollution, also make sediments dredged from the bottoms of polluted rivers and harbors a potential threat to human health as well as to other organisms. Pollutants, such as toxic heavy metals and chlorinated hydrocarbons (e.g., kepone), adhere to the dredged material and may not only be harmful to the organisms where the dredge spoil is dumped, but may also contaminate the food chain. This is why, for example, EPA and the Corps have agreed to a ban on maintenance dredging of the James River where kepone discharges had occurred. This is why it is essential that the Federal Government retain jurisdiction over the disposition of polluted dredged material.

Fill material deposited in a wetland or waterway may be dangerous as well.

Apart from its physical destruction of habitat, the fill may be polluted or may itself be a toxic pollutant. Two examples--both the subjects of widespread media attention--will illustrate this problem.

One example involved a chemical company in Alexandria, Virginia. When analyses were done of the soil surrounding the plant, the soil was found to contain as much as 28,000 parts per million or arsenic, along with high concentrations of herbicides, insecticides, PCBs, and mercury. Heavy soil contamination extended to a depth of seven feet. Because this property is adjacent to the Potomac River and overlies an underground aquifer, something will have to be

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done to keep chemicals from leaching into the water. Under the Wright/Breaux amendment, the company could take the estimated 800 dumptruck-loads of arsenic-contaminated soil and deposit them as a fill in any convenient non-navigable waterway or adjacent wetland. The chemicals would then be free to oeach into the water at will, polluting the water and contaminating the food chain.

The other example concerns kepone. According to Dr. Jack Blanchard, Chief of EPA's Kepone Task Force, one of the sources of kepone in the James River was a low, marshy area adjacent to Bailey's Creek--a non-navigable tributary of the James (i.e., one which would not be covered under the Wright amendment). Dry kepone which failed to meet industrial standards was dumped in this area and contributed to contamination of the James River. Under the Wright/Breaux proposals, this material could be deposited as a fill outside of navigable waters or adjacent wetlands and be exempted from both dredge and fill discharge (Section 404) and pollutant discharge (Section 402) requirements.

Despite passionate urgings to the contrary, the fact is that the Congress fully intended that discharges of dredged and fill material into all waters of the United States--and not simply "navigable waters" in the classical sense--should be regulated. And it is equally true that the Court's decision in NRDC v. Callaway faithfully interpreted Congress's expressed intent, despite no less passionate urgings that the judicial branch was manufacturing law and usurping legislative prerogatives.

Congress's original instincts were correct and the wisdom of its action in passing the 1972 Water Act amendments remains unrefuted. If some fine-tuning of Section 404 is required, it should be done with a scalpel rather than a meat-cleaver. And it should be done only after specific problems legitimately identified have been subjected to careful public and congressional scrutiny.

Much of the hysteria surrounding the Section 404 program can be traced directed back to a May 6, 1975, News Release issued by the Office of the Chief of Engineers and disseminated by all of the local Corps of Engineer districts. That release announced the issuance of proposed Section 404 regulations. In doing so, it stated that, under the proposed alternatives, "Federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wants to protect his land against stream erosion." To make sure this hits home, the release went on to note that "under the broad interpretation of the 1972 FWPCA amendments, millions of people may be presently violating the law." Readers were reminded that "convicted offenders may be subject to fines of up to $25,000 a day and one year imprisonment." The reaction was immediate and predictable. The Corps was deluged with over 5,000 angry letters.

The Release enraged and alarmed not only farmers and ranchers.

On May 12, Thomas L. Kimball, the National Wildlife Federation's Executive Vice President wrote the Secretary of the Army to denounce the statements in the May 6 Release as "untrue" and as a "tactic to scare farmers and

ranchers into support for the narrowist definition of the Corps' responsibility possible" (which is of course the position the Corps favors). On May 16, the EPA Administrator wrote the Chief of Engineers, attributing most of the confusion and misunderstanding surrounding the implementation of Section 404 to the Corps' "seriously inaccurate and misleading press release." He expressed EPA's concern over the release's false implication that "farmers must obtain permits whenever they plow a field," and that "millions of people may be presently violating the law." On June 5, Senator Muskie of this Committee denounced the release as "what appears to be a deliberate attempt to distort Federal water pollution policies for purposes which I do not understand." He characterized the announcement that the NRDC v. Callaway court decision would have the effect of placing thousands of farmers in violation of Federal law, as false and malicious: "Nothing could be further from the truth and the Corps knows it." Senator Muskie publicly called upon the Secretary of the Army to retract "the press release which has already caused so much concern and confusion." Many other individuals and organizations, including Members of both Houses of Congress, added their voices to these calls for retraction of the Corps' mischievous and unwarranted press release.

On May 23, 1975, the Chief of Engineers responded to the EPA letter. He stated the following: "Many have interpreted the press release to mean that all farmers must obtain permits whenever they plow a field. That, of course, would not be required." Shortly thereafter the Secretary of the Army expressed his sincere "regret that the Corps' news release was misleading."

When the Corps issued its interim final regulations on July 25, 1975, in the Secretary's words, they expressly exempted from permit requirements all "normal farming, ranching, and forestry operations, such as plowing, seeding, cultivating, and harvesting"; "conservation or erosion control" practices, and "maintenance and emergency repairs of dikes, dams, levees, rip-rap, breakwaters and causeways."

Throughout the year that has followed, the Corps and the Department of the Army have repeatedly emphasized their determination "to use moderation and a reasonable approach" in the administration and enforcement of the Section 404 program. They have also repeatedly pledged to issue so-called general permits, which provide blanket authorization for comparable activities with no significant adverse environmental impact in designated areas, "as much as possible," in order "to make the program more manageable and practical by reducing the number of permits required."

As of June 1, 1976, the Corps had approximately sixty general permits "in various stages of active development." These expedited blanket permits cover a broad spectrum of activities, including:

--All individual culvert activities in the State of New York (Draft)

--Construction of open structure docks in New Jersey and Delaware (Draft)

--Rip-rap shore protection on Lakes Ontario and Erie east of the New York-Pennsylvania state line (Draft)

--Boat docks and bank stabilization, segments of the Des Moines Rivers (Issued)

--Discharge of dredged or fill material for the purpose of road construction in the State of Oregon (Draft)

--Fills in conjunction with culverts and bridges in the State of Idaho (Issued)

--Construction of bridge abutments, culverts, and associated highways in Shasta County, California (Public Notice)

--Placement of fills in conjunction with specified conservation practices, culverts, and small bridges in the State of New Mexico (Draft).

Despite all of the retractions, apologies, explanations, assurances, and reassurances from the Corps and the Department of the Army, the falsehoods in the Corps' May 1975 press release have done their damage. Despite the demonstrated reluctance of the Corps to administer an expanded Section 404 program in the first place, despite the Corps' expressed intent to employ moderation, despite the Corps' demonstrated commitment to emphasize the use of broad, easy-to-obtain general permits, and despite express exemptions in the Corps' published regulations for many activities of concern to farmers, ranchers, and foresters--despite all of these things, there are many, including some Members of Congress who believe the Corps wants to inject its authority into the activities of private citizens to a ludicrous degree.

These concerns are unfounded and have been repeatedly shown to be unfounded.

We, and the numerous citizens across the Country for whom we speak, respectfully urge this Committee not to be swayed by rumors and misinformation. Section 404 is a vital section of a vital piece of pollution control legislation. The agencies charged with administering it have demonstrated that they will not abuse their authority. They should be given a chance to carry on.

Section 404 was designed to control water pollution and to protect water resources. It's purpose was not, is not, and must not be limited to, maintenance of commercial navigation.

The future of an irreplaceable national treasure rests in your hands.

EXHIBITS TO TESTIMONY OF LOUIS S. CLAPPER AND KENNETH S. KAMLET ON BEHALF OF THE NATIONAL WILDLIFE FEDERATION BEFORE THE SENATE COMMITTEE ON PUBLIC WORKS, OVERSIGHT HEARINGS ON SECTION 404 OF P.L. 92-500, JULY 28, 1976

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National Wildlife Federation

The following organizations have endorsed the National Wildlife Federation's testimony on Section 404 before the Senate Public Works Committee:

American Fisheries Society
American Fishing Tackle Manufacturers Association
American League of Anglers, Inc.
American Littoral Society
California Committee of Two Million
California Trout
Citizens Committee on Natural Resources
Conservation Foundation
Federation of Fly Fishermen
Federation of Western Outdoor Clubs
Game Conservation International
International Association of Game, Fish and Conservation Commissioners
International Game Fish Commission
Marine Environmental Council of Long Island
National Coalition for Marine Conservation
National Fishing Institute
National Waterfowl Council
National Water Wells Association
North Dakota Natural Science Society
Sport Fishing Institute
Theodore Gordon Flyfishers
The Wildlife Society (endorsement in principle)
Trout Unlimited
Wildlife Management Institute

In addition, the following affiliates of the National Wildlife Federation whose states are represented on the Senate Public Works Committee have endorsed the NWF position:

Alaska Wildlife Federation and Sportsmen's Council (12 statewide and local clubs)
Colorado Wildlife Federation (13 statewide and local clubs)
Idaho Wildlife Federation (28 statewide and local clubs)

(more)

Iowa Wildlife Federation (13 statewide and local clubs)
Natural Resources Council of Maine (124 statewide and local clubs)
New Mexico Wildlife Federation (43 statewide and local clubs)
New York State Conservation Council (2,660 statewide and local clubs)
North Carolina Wildlife Federation (163 statewide and local clubs)
North Dakota Wildlife Federation (60 statewide and local clubs)
Sportsmen's Clubs of Texas (125 statewide and local clubs)
Tennessee Conservation League (49 statewide and local clubs)
Vermont Natural Resources Council (65 statewide and local clubs)
West Virginia Wildlife Federation (111 statewide and local clubs)

UNIVERSITY OF RHODE ISLAND
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Forest & Wildlife Mgt. Agricultural Experiment Station · Woodward Hall · 401-792-2475

July 19, 1976

Mr. Robert Danko
c/o National Wildlife Federation
1412 16th St., N.W.
Washington, D.C. 20036

Dear Mr. Danko:

I understand that the National Wildlife Federation will be providing testimony during the hearings later this month on the Army Corps of Engineers' responsibility for wetland protection under Section 404 of the Water Pollution Control Act. I would like to offer the following comments for your use if you see fit.

I have been involved in wetland research and planning since 1967 when I began work on a Master's degree in wildlife management at Cornell University. From 1969 through 1972 I worked at the University of Massachusetts as a member of an interdisciplinary research team, assembled to devise criteria for the evaluation of freshwater wetlands. Our aim was to provide criteria to decision-makers at all levels so that they could evaluate wetlands for groundwater recharge potential, wildlife habitat and visual-cultural amenities (recreation, education, aesthetics). Our team consisted of wildlife biologists, geologists, landscape architects, regional planners and economists. Enclosed is a list of publications that have emerged from that research project.

Since 1972 I have been teaching courses in wetland ecology and land use, doing research in wetlands and conducting workshops for local officials on wetland characteristics, values and techniques for decision-making. Presently I am writing, with three other ecologists, a Classification of Wetlands and Aquatic Habitats of the United States for use in the National Wetlands Inventory being carried out by the U.S. Fish and Wildlife Service. A copy of our interim report is enclosed. For the past three months I have been serving on Governor Philip Noel's Task Force on Wetlands, set up to recommend ways to improve Rhode Island's wetlands act and its administration.

I give you this background information only to demonstrate that my comments are not randomly made or emotionally based.

We have thoughtlessly destroyed the wetlands of our country for some 300 years now. Recent sources tell us we have already lost over 50 percent of the original wetland acreage in the U.S. Yet, the value of wetlands in their natural state was only formally recognized in the form of protective legis-

lation as recently as 1963, when Massachusetts passed the nation's first wetlands act.

The value of salt marshes as nurseries and major food sources for marine fish and shellfish, as buffers against the destructive forces of storms and as filters of environmental pollutants are all well established in the scientific literature. The role of inland wetlands in flood control, groundwater recharge, wildlife production and diversity, pollution filtration, and maintenance of base flow of streams have similarly been clearly demonstrated. In addition, wetlands provide unusual opportunities for recreation and scenic enjoyment and, at the same time, provide a natural form of open space which can be utilized to buffer extensive areas of urbanization.

In short, the values of wetlands have become so well known and so well appreciated by the scientific community and the general public during the last 15 years, that a number of states have passed legislation to protect these areas in the interest of public health, safety and welfare. As a result of this new knowledge, traditional practices of the U.S. Soil Conservation Service, the Army Corps of Engineers and other agencies have come under fire from environmental protection organizations, professional scientific organizations and the general public alike - and for good reason. Widespread stream channelization, reservoir construction and other such activities have been shown to have drastic effects on the natural values of wetlands.

We have attempted to gauge the magnitude of our wetland values and our wetland losses in many ways, including dollars and cents, because our system of land use allocation has been traditionally profit-oriented. Generally, we have felt uncomfortable with such dollar estimates because many of the values that wetlands provide are irreplaceable and truly inestimable. Similarly, the restoration of already destroyed wetlands is a poor substitute for the real need - regulation and restriction of alteration.

Even in the youngest parts of the U.S., where the landscape was rejuvenated during the last Ice Age, wetlands have been developing for some 10,000-18,000 years. Over this period, streams, lakes, estuaries and uplands have been evolving in harmony with wetlands, creating an interrelated system of surface water and ground water, soil and biotic communities. Once a wetland has been destroyed, an artery has been cut from the circulatory system and man's best efforts can only create a mediocre substitute.

My work has convinced me that we desperately need national legislation protecting wetland values across the country. Individual states are to be commended for their efforts and emulated by other states, but many presently have no wetland legislation. We need a federal agency to regulate wetland alteration in all areas of the country right now. Without this, we will continue to lose wetlands at an ever faster rate and suffer the consequences forever.

The Army Corps of Engineers has personnel with expertise to judge the impact of various projects on wetlands and they have traditionally been blessed by Congress with ample funds to accomplish their goals. I would urge the Congress to maintain the Corps' jurisdiction over all wetlands

of the U.S., as recently interpreted, not just those in tidal areas.

It is high time that the federal government took strong leadership in the area of wetland protection. Waterfowl and marsh bird populations have suffered enough habitat destruction; enough homes have been washed from stream floodplains; enough groundwater supplies have been irreparably polluted by leachate from garbage dumps and road salts. To strip the Army Corps of Engineers of their recently granted jurisdiction over all wetlands of the United States would suggest that my work, and the work of the people like myself, is all for naught. I sincerely hope this is not the case.

Sincerely yours,

Frank C. Golet

Frank C. Golet
Assistant Professor

FCG/mm

Fish Don't Vote — Fishermen Do.

The American League of Anglers, Inc.
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Scarsdale, New York
David Zwick
Clean Water Action Project
Washington, D.C.

Dianne McLaughlin
Managing Director

July 22, 1976

The Honorable Jennings Randolph
5121 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Randolph;

The American League of Anglers, a national organization representing the interests of sport fishermen and the conservation of sport fishing resources, is opposed to weakening the Section 404 of the Federal Water Pollution Control Act.

We urge the Senate Public Works Committee to reject the Wright Amendment to HR 9560. To restrict the authority of the Army Corps of Engineers to navigable waters carrying interstate transport would leave 75% of the nations's remaining wetlands without federal protection. Our fresh and saltwater marshes are vital to the life cycle of both sport and commericial fish, as well as serving as natural filters of waterborne pollutants.

While we think it unwise for the Congress to make substantive changes in the F.W.P.C.A. before thoroughly reviewing the report of the National Commission on Water Quality, we recognize there is apprehension concerning the 404 program. To alleviate the concerns of those who fear bureaucratic delay and overregulation, we suggest the Senate adopt the moderate changes proposed in the Cleveland-Harsha Amendment introduced in the House. This amendment would exempt normal farming operations from permit requirements and provide a mechanism for general permits for activities having a minimal impact on the environment.

The American League of Anglers urges the Senate Public Works Committee to uphold the intent of the Federal Water Pollution Control Act and retain a strong 404 program.

Respectfully,

Curt Gowdy

Curt Gowdy
Chairman of the Board

CG:mjl
cc: Senate Public Works Committee
National Wildlife Federation

SOIL CONSERVATION

U.S. Dept. of Agriculture/Soil Conservation Service/March 1974

From the Administrator

Wetlands and wildlife and weather

The importance of wetlands—marshes, bogs, swamps—is particularly evident at this time of year. For it is when the rains of early spring trickle, then fall, then pour down in nearly flood force that people are most aware of the need for natural or manmade ways to control or absorb excess water. It is then that wetlands do their "serious" job of sponging up extra rainwater and feeding it slowly back into the nation's streams and rivers.

Wetlands are not wastelands. They have the specific function mentioned. They are havens for birds and nurseries for aquatic life. They provide a major setting for hunters, birdwatchers, and fishermen to pursue their sport. And they are a vast outdoor classroom for amateur and professional scientists because they are the frontier between the two great ecosystems of land and water.

The Soil Conservation Service works with many people to preserve, improve, and wisely use our wetland resources. Perhaps our major—certainly our oldest—type of assistance is to thousands of individual farmers and ranchers. In 1973 alone, SCS assisted landowners to improve more than 9 million acres of uplands and more than 539,000 acres of wetlands for the use of wildlife.

SCS also works closely with organized groups such as the Nature Conservancy. The first "official" SCS assistance to the Nature Conservancy, in fact, was in Finzel Swamp, Maryland.

We continue to work with federal and state agencies interested in wetlands and wildlife. SCS joined with Wisconsin's Department of Natural Resources to help restore part of the 26,000-acre Brazeau Swamp to a more natural state. A road, acting as a dam, had raised the water level and saturated an area beyond its normal capacity, resulting in tree and shrub deterioration and a scarcity of food for wildlife. SCS helped design a channel to lower the water table to its natural level.

SCS people are pleased to be among the men and women actively preserving and improving wetland areas. It is part of our longtime objective of "using each acre within its capabilities and treating each acre in accordance with its needs for protection and improvement."

Wetlands as wetlands have many values. Yet it is a fact that the drainage of some wetlands for agriculture or buildings and other urban uses is as old as civilization. There will continue to be times and places when society feels that the value of a specific wetland, in its natural state, should be superseded by its value for some other purpose. As land use pressures mount, the American people should be fully informed of the special values of all lands, including wetlands, so these can be carefully considered in present and future land use decisions.

Kenneth E. Grant



NEW MEXICO-ARIZONA SECTION
THE WILDLIFE SOCIETY

July 15, 1976



Honorable Peter Domenici
New Senate Office Building
Washington, D. C. 20515

Dear Senator Domenici:

Those of us in the wildlife profession in the Southwest are very concerned about the threats to our nation's wetlands, streams and lakes associated with the Wright-Breaux amendment to HR 9560 affixed to S2710. This amendment to Section 404 of the 1972 Water Pollution Control Act is a serious threat to our wetlands which are essentail to the welfare of wildlife in the United States. Currently, Section 404 safeguards wetlands. It would be most unfortunate if this protection was removed. Over 50 percent of our nations wetlands have been destroyed by dredging, drainage, and pollution. In addition to wildlife values, these waterways are of major importance for recreation and supplies of public drinking water. We urge you to stand firm against any weakening of the Section 404 program.

Sincerely yours,

S. D. Schemnitz

S. D. Schemnitz, President
New Mexico-Arizona Section
The Wildlife Society
Box 1402, Rt. 1
Las Cruces, N. M. 88001

same letter sent to: P. J. Fannin, Joseph Montoya, Manuel Lujan, John Conlan, Sam Steizer, Morris Udall, Berry Goldwater, Harold Runnels, and John Rhodes

LOUISIANA STATE UNIVERSITY
AND AGRICULTURAL AND MECHANICAL COLLEGE
BATON ROUGE • LOUISIANA • 70803
Center for Wetland Resources
COASTAL STUDIES INSTITUTE • OFFICE OF SEA GRANT DEVELOPMENT • DEPARTMENT OF MARINE SCIENCES

July 19, 1976

National Wildlife Federation
1412 16th Street NW
Washington, DC 20036

Attention: Mr. Bob Danko

Dear Mr. Danko:

I would like to acquaint you with what I feel are some of the cogent arguments to maintain the coastal wetlands of the United States under sound management practices controlled above the level of the local political unit, and in some cases above the state level. I think it is clear that coastal wetlands are regional and national resources. The piece-meal development of small areas, one at a time, without regard to the whole wetland system has a cumulative effect which will have repercussions far outside of the immediate zone of activity.

Much has been said in recent years about the value of the coastal wetlands. First, let me document some of these and then try to put them in perspective by illustrating the consequences of failure to protect them. Coastal wetlands are the nursery grounds for nearly all commercially important offshore fisheries. McHugh (Amer. Fish. Soc. Spec. Public. No. 3, 1966) stated that 2/3 of the cash value of species harvested on the Atlantic and Gulf coasts are estuarine dependent. Others put the degree higher. It is more difficult to draw a direct relationship between the magnitude of the fish harvest and the coastal wetlands. However in a recent study Dr. Eugene Turner of this department has shown that on a world-wide basis there is a direct relationship between the offshore harvest of shrimp and the total area of the salt marsh upon which that fishery is dependent. The relationship is with the marsh area and not with the inland water area, indicating the importance of the marshes as a source of organic food for the shrimp and as a nursery habitat.

In addition to commercial fisheries recreational use of the coastal zone has generally been underestimated. Two-thirds of the population of the United States lives in about one-third of the land that lies along its coasts. This has resulted in tremendous population pressures on the coastal wetlands, sport fishing and recreational use is a natural outcome. Louisiana, for instance, has 2,000,000 licensed fishermen. A recent study in Georgia concluded that on the average each coastal sports fisherman spends $80 a year in sport fishing. I think that is probably low but even at that level for 2,000,000 fishermen that is $160,000,000 per year spent for sport fishing in Louisiana. In many areas coastal sports fishing is much more important economically than commercial fishing.

In addition to the fisheries and recreational value of marshes wetlands perform another general function which has sometimes been called the free work of nature. What this has come to mean to me is that certain work is accomplished by natural systems when maintained in a productive natural state. By low expenditures for

maintenance and protection of this condition society as a whole protects itself against really high investments duplicating the services of nature. An example of this is the treatment of sewage along the Atlantic coast. In a recent EPA report (Sweet, D. 1971. The Economic and Social Importance of Estuaries) it was shown that five major estuaries on the Atlantic coast treat amount of organic sewage equivalent to an average of 19 pounds of biological oxidation demand (BOD) per day per acre. These estuaries treat this in the sense that sewage is dumped into them and it disappears. That is, the organic matter is oxidized, and the inorganic nutrients are removed from the estuarine waters in one way or another. In a sewage treatment plant we call the oxidation of organic matter secondary treatment, and it is relatively inexpensive--2 1/2¢ a pound of BOD. But the removal of inorganic nutrients, especially nitrogen and phosphorus, which occurs in the tertiary treatment step of treatment plants, is very expensive--something like $2.00 for the equivalent nutrients found in a pound of BOD. So along the east coast the estuaries and associated marshes are removing nutrients which would cost about $2.00 a pound of BOD to remove. The load of organic matter dumped into these estuaries is destroying the water quality as is shown by periodically low-oxygen concentrations and fish kills. The cost of providing secondary treatment plants for all this sewage while high, is a cost which our cities can absorb and should absorb in order to maintain the wetland-estuarine systems in a healthy state so that they can effectively perform the more expensive task of tertiary treatment. So the very real free work east coast estuaries perform is worth about $4,000,000 per day - at least that is what it would cost to treat the domestic sewage currently dumped into them.

Domestic sewage is a special case of a general problem which estuaries, over many millenia, have evolved to handle. Estuaries are the downstream receivers of river discharges. Rivers in general have high nutrient concentrations and have had them since before man started applying fertilizers on his farmland. The downstream reservoirs have evolved in this high nutrient environment, and have developed as efficient nutrient traps. The conditions for this are shallow well-mixed waters, marshes which trap silt and associated nutrients, and very high microbial activity. When the organic load is too high as in cases of extreme pollution or when the river bypasses the estuaries, as is happening with the Mississippi River, the offshore waters become polluted, that is, anoxic and unable to support marine life. This leads to the kinds of problems currently experienced on the beaches from the New York bight north, with the accompanying high cost of clean-up.

In addition to this general role of estuarine systems as nutrient traps, the extensive expanses of wetlands act as storm reservoirs and protect inland areas from the severe effects of hurricanes and other storms. Marsh filling and human encroachment into coastal areas has resulted in enormous damage from storms, damage which is usually paid for finally by the tax payer through the federal government.

Another free service of nature is that of harbor and beach protection. Harbors in particular are a good example. In 1888, a geologist, named Dunbar described how all the harbors of New England filled with silt when the great marshes were

drained and leveed. This occurred because the marshes were no longer able to trap silt,and because water currents in tidal passes were reduced as the intertidal volume decreased.

It is difficult to put a monetary value on these free services. One can quote the enormous expense of dredging, the enormous costs of storm damage in low-lying coastal areas, and the expenses which would be incurred in building tertiary treatment plants along coastal waters. For instance a rough estimate shows that the value of the tertiary treatment which the east coast marshes perform is presently about $2,500 per acre per year based on the cost of operation of tertiary treatment plants. It should be emphasized that this is the social value, that is it does not accrue to the owner of the wetlands. These free services accrue to society as a whole and should the wetlands be destroyed, government would be placed in the position of providing many of the same services at tremendous cost in taxes to the general populace. The conflict between private ownership and the welfare of society is particularly clear here, and is one reason strong regionally-based management plans and practices are needed.

The problem is a regional one rather than a local one. For instance the Mississippi drains nearly half the continental United States. Problems of the Louisiana estuarine areas result in part because of the conditions of drainage, farm fertilization and sewage disposal throughout the Mississippi watershed. The same can be said of nearly every estuary in the country. Thus wetlands need to be protected from piecemeal developments which individually have no great effect on the estuarine system, but, taken as a whole have a very significant cumulative effect. This can only be done by development of strong management plans, and review and permitting authority which transcends that of local governments.

Sincerely yours,

James G. Gosselink

James G. Gosselink
Professor and Chairman
Department of Marine Sciences

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western union **Telegram**

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PRS CITIZENS COMMITTEE ON NATURAL RESOURCES CARE OF HR CHARLES
ROBERTS , DLR
1412 16TH ST NW
WASHINGTON DC
ONE MONTH AGO I WAS PLEASED TO SERVE AS HONORARY CHAIRMAN OF A
CAMPAIGN TO SAVE OUR WETLANDS. NOW LET ME ADD MY VOICE TO THOSE OF
THE CONSERVATION GROUP OPPOSING ANY CUTBACK IN THE FEDERAL
PROTECTION OF WETLANDS. ANY ACTION BY CONGRESS TO NULLIFY PRESENT
COURT INTERPRETATION OF THE FEDERAL WATER POLLUTION CONTRAL ACT OF
1972 WOULD IN MY OPINION BE A BLOW TO OUR NATIONS WILDLIFE AND TO
OUR ENVIRONMENT. OUR WETLANDS ARE IRREPLACEABLE FOR FUTURE
GENERATIONS OF AMERICA. LETS PRESERVE WHATS LEFT AGAINST NEEDLESS
AND RECKLESS DESTRUCTION.

BING CROSBY

Citizens Committee on Natural Resources
1000 Vermont Avenue, N.W. Washington, D.C. 20005 • (202) 638-3396

July 19, 1976

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

On 3 June 1976, the House of Representatives passed by voice vote and sent to the Senate the Wright Amendment to Section 404 of the Federal Water Pollution Control Act (P.L. 92-500). This action, if confirmed by the Senate and the President, would strip federal protection from millions of acres of nontidal wetlands of vital importance to our economy as well as to the cultural, recreational, and aesthetic enjoyment of the American people.

We consider the House action, taken in response to ill-founded fears, to be hasty and ill-advised. No consideration was given to environmental or economic impacts, nor was any public hearings conducted on this or the earlier and similar Breaux Amendment. Scientific and conservation interests and the general public were given no scheduled opportunity to comment.

The Wright Amendment is sweeping and complex in its implications. It contains many ramifications bearing on the future of the Nation's critical aquatic areas and the related natural resources and public values dependent upon them. By narrowly redefining navigable waters, it would exempt virtually all but salt and brackish water marshes from the dredge-and-fill permit system now administered by the Corps of Engineers and the Environmental Protection Agency. We are deeply concerned that the Wright Amendment, if enacted, will undermine important interrelated laws and regulations, especially the long-standing Refuse Act of 1899. The important and priceless aquatic areas of our country require continuing protection.

Wetlands in their natural state have many irreplaceable public values that should be maintained. Because of their water-holding capacities, they have been proven to act as storage basins that help reduce floods that might otherwise threaten human life and property downstream. By doing so, they curtail the need for flood control dams and levees and thereby help reduce public costs and burdens on taxpayers, including payments made for emergency relief. Scientists have estimated that a 6-inch rise in water level over a 10-acre wetland accounts for the storage and gradual release of more than 1.5 million gallons of water.

Wetlands play a significant role in ground-water recharge, assuring reliable and continuous supplies of water for many municipal, industrial, and agricultural complexes whose growth, and even existence, depends upon them.

Of equal importance is the value of wetlands in serving as water-filtration systems that remove large quantities of silt and water-borne pollutants from streams vital to municipalities, industry, and agriculture. By reducing the nutrient load in flowing water, they help minimize algal blooms and rank aquatic plant growth that lower the effectiveness and shorten the lives of downstream reservoirs. Most of these reservoirs were built and are maintained with taxpayers' funds. Intensive study of a stream in Georgia by the Federal Water Pollution Control Administration showed that a heavily contaminated stream purified itself to highly potable standards after passing through less then ten miles of upland swamp. The cost of artificially removing these contaminants would have involved substantial capital investments by industry and government.

Of equal importance to the national economy is the contribution of wetlands to the well-being of the nation's hard-pressed fishing industry. The importance of small headwater streams, which would be classified as non-navigable under the Wright Amendment, to the maintenance of anadromous fishes, such as salmon, steelhead trout, shad, and alewives, which depend upon such streams for spawning, is obvious. What is less widely recognized is the value of interior wetlands in nourishing and replenishing coastal and lacustrine estuaries into which they feed. A high percentage of all shell- and finfish of commercial and sport value spend all or part of their lives in such areas and need them to survive. As with municipal, industrial, and agricultural water supplies, upland wetlands eliminate the influx of contaminants that frequently cause the closure of fisheries of great importance to local industry. The current Kepone disaster involving the James River in Virginia and Chesapeake Bay has serious implications for local watermen, and might not have occurred if the contributing factory had been located farther upstream and the river's waters subjected to the cleansing action of riparian wetlands.

Similarly, by regulating flows of feeder streams, upstream wetlands help maintain the precise degrees of salinity required by oysters, shrimp, clams, and other commercially important estuarine species.

These important functions assume greater importance in the light of the recently adopted 200-mile fishery jurisdiction. That authority, as you know, calls for improving management of the United States', as well as the rest of the world's, fishery resources. The Wright Amendment threatens to permit destruction of the aquatic habitats required to assure perpetuation of those resources. Permit that to happen and the economy will be short changed forever.

These are only a few of the significant values, important both economically and ecologically, that are threatened by adoption of the Wright Amendment.

In view of these facts, we urge you and the Executive Branch to authorize the Corps of Engineers and the Environmental Protection Agency to proceed with implementing the guidelines for handling dredged and fill materials under Phase II of the Corps permit program under Section 404 of the Water Pollution Control Act of 1972 as published in the Federal Register of 25 July 1975.

We believe that the Environmental Protection Agency and the Corps, and possibly Congress as well, should hold public hearings for the purpose of reviewing the experience accumulated since 25 July 1975 in handling permits under the 404 program. These hearings should identify if and how the program and procedures should be refined. The results of the hearing or hearings would be used to mold a well-designed program that is acceptable and in the long-term public interest for maintaining the chemical, physical, and biological integrity of the nation's waters. This is the follow-up procedure established previously and announced in the Federal Register on 25 July 1975.

It is not our position to support a program to curtail all development of aquatic and associated areas. Rather, we seek practical guidelines that insure orderly planning and assure maintenance of important aquatic areas as part of a total development plan.

We respectfully appeal to your strong belief in fairness in government, enlist your support in helping assure public participation in the decision-making process, and urge that the powers of your high office be used to forge an effective joint federal-state program to maintain, not degrade and destroy, the important water and other aquatic resources of our nation.

Respectfully yours,

American Fisheries Society
Carl R. Sullivan, Executive Director

American Institute of Biological Sciences
Richard Trumbull, Executive Director

American Littoral Society
John Clark, Washington Director

Citizens Committee on Natural Resources
John Burdick, Executive Director

J.N. "Ding" Darling Foundation
Sherry R. Fisher, Chairman

Friends of the Earth
David R. Brower, President

International Association of Fish and Wildlife Agencies
John E. Phelps, President

Izaak Walton League of America
Jack Lorenz, Executive Director

National Audubon Society
Joseph P. Linduska, Vice President

National Coalition for Marine Conservation
Frank E. Carlton

North American Wildlife Foundation
Laurence R. Jahn, Secretary

Natural Resources Defense Council, Environmental Lobby
Ronald B. Outen

The Rachel Carson Trust
Shirley A. Briggs, Executive Director

Sierra Club
Rhea Cohen, Washington Representative

Sport Fishing Institute
Richard H. Stroud, Executive Vice President

The Wilderness Society
George D. Davis, Executive Director

The Wildlife Society
Fred G. Evenden, Executive Director

Wildlife Management Institute
Daniel A. Poole, President

World Wildlife Fund
Godfrey A. Rockefeller, Executive Director

SPORT FISHING INSTITUTE

608 THIRTEENTH STREET, N.W. (SUITE 801) WASHINGTON, D. C. 20005 (202) 737-0668

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G. C. RADONSKI, Executive Secretary

July 19, 1976

RECEIVED
JUL 21 1976

Senator Jennings Randolph
Chairman, Public Works Committee
Dirksen Senate Office Building
Room 5121
U. S. Senate
Washington, DC 20510

Dear Mr. Chairman:

This Organization is pleased that on July 27 and 28, 1976, the Senate Public Works Committee will hold the first Congressional hearings on the Wright-Breaux Amendment (section 16) to S. 2170 that would drastically change the thrust of Section 404 of P. L. 92-500. We are, however, dismayed with the paucity of organizations being permitted to testify that oppose the Wright-Breaux Amendment.

The Sport Fishing Institute recognizes and appreciates the value of this Nation's wetlands. The unique habitat represented by wetlands is an integral part of many fishes spawning requirements and the reproductive habitat requirement of various aquatic organisms that are part of the diet of many fishes that eventually enter sport and commercial fisheries. In addition, wetlands through their purifying qualities significantly contribute to improved water quality. There are no substitutes for wetlands; they cannot be mitigated. Because of the great value of wetlands this organization feels that they must be afforded the protection of a National treasure. The Wright-Breaux Amendment does not provide that protection. It delegates protection to the various states with only a few states having sufficient laws to protect wetlands. What will protect that irreplaceable resource until the states gear up to furnish that protection? We submit that nothing will protect them.

The sound, comprehensive three-phase Section 404 permit program promulgated by the U. S. Corps of Engineers on July 25, 1975, in the Federal Register is working. When phase three of that three-phase program goes into effect on July 1, 1977, all waters of the U. S. will be protected by the permit system. Modification of the permit system that would exclude certain agricultural and forestry practices that have minimal adverse environmental impact is acceptable. To that end, the Sport Fishing Institute supports Senate bill 3663 that would amend section 404 of P. L. 92-500.

Mr. Chairman, it is gratifying to know that the Senate will not act precipitously on so important a matter as the fate of this nation's wetlands as did the House of Representatives. Your Committee will give the hastily-conceived Wright-Breaux Amendment its first public hearing. We are confident that the hearing will impress upon your

Committee that wetlands are worthy of federal protection. Further, we are confident that Government witnesses will demonstrate to the Committee that the existing permit system, with modification as called for in S. 3663, does and will allow both protection of wetlands and an orderly development of wetland areas that is compatible with the resource.

It is respectfully requested that this letter be made part of the record of the Public Works Committee's hearings on Section 404 of P. L. 92-500.

Sincerely yours,

Gilbert C. Radonski
Executive Secretary

GCR:lcb

JAMES E. RICE
EXECUTIVE SECRETARY

Indiana Conservation Council, Inc.

P.O. BOX 672
MUNCIE, INDIANA 47305
PHONE (317) 288-0368

July 14, 1976

The Honorable Jennings Randolph
Chairman, Senate Public Works Committee
Russell Office Building
Washington, D.C. 20510

Dear Senator Randolph,

Enclosed you will find a series of petitions containing several hundred signatures of people deeply concerned with the destruction of wetlands at Lake Wawasee here in Indiana.

At the present time Indiana law is not sufficient to protect wetlands from drain and fill operations. The provisions defining the "legal lake level" in the Indiana law do not recognize the importance of wetlands to the environment nor do they contain any biological criteria by which a wetland can be defined. This leaves our state's wetlands open to development regardless of the consequences.

Section 404 of the 1972 Water Act pertains to this situation. Phase 2 of the Army Corps of Engineers program of implementation brings Lake Wawasee under the umbrella of protection afforded by the present law. At the time this letter is being written the law is being tested in U.S. District Court in South Bend, Indiana. The case relates to wetland destruction at Lake Wawasee and was brought by the Army Corps of Engineers and the U.S. Department of Justice against private developers. We are very hopeful that this case will be resolved in favor of wetlands protection. It is our understanding that htis is the first case of its kind on an inland natural lake and we believe it demonstrates the value of the 1972 Water Act.

In our opinion, Congress fully intended that the waters of the Unted States, all waters of the United States, were to be cleaned up and maintained in a state of high quality. Acceptance of the Breaux or Wright amendments would negate this intention. We fully realize that there are some small farming practices etc., that could be effected by the Act as presently in force, however, the Cleveland-Harsha amendment would have removed these problems satisfactorily without damaging the intent of the 1972 Act. Out intent is to impress upon you and your colleagues that many of us in Indiana are opposed to any amendment of the 1972 Act that would allow for destruction of our already seriously threatened wetland resources.

If you have any questions or comments, or if we can be of any service to you in this matter please contact us at your earliest convenience

Sincerely,

James E. Rice
Executive Secretary

cc Sen. Birch Bayh
Sen. Vance Hartke

The Conservation Foundation
1717 Massachusetts Avenue, N.W., Washington, D.C. 20036
Telephone (202)797-4300 Cable CONSERVIT

July 27, 1976

Senator Jennings Randolph
Chairman
Senate Public Works Committee
5121 Dirksen Senate Office
Building
Washington, D.C. 20510

Dear Senator Randolph:

In response to the Committee's request, The Conservation Foundation is submitting this statement to the Senate Public Works Committee in support of the dredge and fill permit program, as developed and implemented by the Corps of Engineers and the Environmental Protection Agency pursuant to Section 404 of the Federal Water Pollution Control Act Amendments of 1972 (FWPCAA) (P.L. 92-500). Among the reasons for our support of the program are the three discussed below.

First, the present 404 program has not been abused, but rather has been effective in protecting our water resources. By denying permit applications for 404 activities which would have had a significant adverse impact on the aquatic environment, the Corps of Engineers has saved many acres of valuable wetlands which, except for the program, would probably have been irreparably destroyed. Areas within the Section 404 program jurisdiction, such as tributary waterways and their associated wetlands, have a water cleansing capability. These areas may also serve as spawning and nursery areas for commercial and sports fish; as recharge areas of groundwater for water supplies; as natural protection from floods and storms; and as essential nesting and wintering areas for waterfowl.

The COE has demonstrated that it is capable of administering the program in a responsible and evenhanded manner. The excessive administrative burden (and thus the financial burden to taxpayers) that many feared would be brought about by increased numbers of Section 404

permit applications appears to have been overestimated. Assistant Secretary for Civil Works Victor V. Veysey, in a letter to Representative James L. Oberstar dated June 3, 1976, stated that one reason for this is the Corps' expanding use of the general permit to authorize similar types of work in an area having minimal adverse environmental impact. The use of the general permit will lessen the burden of the increase in the workload resulting from implementation of Phases II and III of the 404 program.

Second, neither the Congress nor the public has taken the opportunity to consider carefully all possible ramifications of amendments to the 404 program nor has the existing program been given a chance to show that it can be workable and reasonable. The Wright amendment passed the House without a hearing, and should this amendment be enacted into law, the present program would be changed drastically. One basic change, for example, would be the creation of a different definition of "navigable waters," one which is far more restrictive in scope than the pre-1972 definition and the definition in the 1972 Act ("waters of the United States, including the territorial seas" (Section 502(7))). Many such changes have not received public attention or debate.

In the Veysey letter mentioned above, the Assistant Secretary expressed his belief that Phase II of the present program should be given a chance to work by seeing how the actual permit workload develops. He recommended, as does The Conservation Foundation, resistance to legislative action based on huge projections of permit applications.

The public has not had the opportunity to find out what effects the implementation of Phase II of the present program might have on their activities which would become subject to regulation under Phase II jurisdiction. There may also be questions about precisely which geographic areas do come within the Phase II jurisdiction. The Congress should consider giving the Corps enough time to hold a series of public meetings to allow public debate of 404 program issues and to clarify any misunderstanding which members of the public may have concerning activities regulated and jurisdictional coverage.

We cannot overemphasize the importance of the duty of Congress to itself and to the citizens to make certain that every issue has been raised and discussed. Congress will have fulfilled this duty only when it has examined the specific problems associated with regulation of the deposition of dredged and fill material within the context of the regulation of all activities causing water pollution. Without such a thorough examination, any amendment Congress passes would be premature.

A third reason we support the present 404 program is that it cannot be replaced by any other program. It is highly unlikely that any 404 program which reflects a compromise in jurisdictional coverage can regulate dredge and fill activities as effectively as the present program. The Corps has not overregulated; rather it has changed its approach to environmental problems and has shown commendable ability to consider both environmental and economic factors in deciding whether issuance of a particular permit would be in the public interest.

We would find acceptable amendments proposed to Section 404 which would explicitly authorize the use of general permits for regulation of dredge and fill activities. Also acceptable would be explicit exemption from regulation of normal farming, silviculture and ranching activities, such as plowing, cultivating, and harvesting; as well as exemption from regulation of the construction and maintenance of farm ponds, stock ponds, and irrigation ditches and the maintenance of drainage ditches.

The Conservation Foundation strongly believes that the present 404 program is the common-sense approach for regulation of dredge and fill activities in the waters of the United States. The program provides an extremely important means for enabling us to restore and maintain the integrity of our Nation's waters, while insuring that this and future generations can enjoy the benefits resulting from having protected our wetlands.

Thank you for allowing us to have the opportunity to submit our comments to you and the Committee on this program.

Sincerely,

William K. Reilly

William K. Reilly
President

A GUIDE TO IMPORTANT CHARACTERISTICS AND VALUES OF FRESHWATER WETLANDS IN THE NORTHEAST

Editor - Joseph S. Larson

Wetlands Research Team:

John J. Foster and Tirath K. Gupta
Ward S. Motts and Richard [illegible]
Walter L. Cudnohufsky,
Julius G. Fabos and Richard C. Smardon
Joseph S. Larson and Frank C. Golet

July 1973

The work upon which this report is based was supported by funds provided by the United States Department of the Interior, Office of Water Resources Research, as authorized under the Water Resources Research Act of 1964

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WETLANDS AND GROUND WATER

Ward S. Motts
and
Richard W. Heeley

What is Ground Water?

Water which penetrates the earth's surface from precipitation and from infiltration by streams, ponds, and lakes may be broadly defined as groundwater. Entry, storage and movement of ground water are influenced by several factors including the characteristics of soils and rocks as well as topography, landscape and surface drainage.

How are Wetlands Related to Ground Water?

Wetlands in Massachusetts can be classified into five basic categories based on underlying deposits. These in turn determine the nature of ground-water occurrence. The approximate percentage of each wetland category to the total area of wetlands in the state is as follows: till and bedrock, 29%; stratified drift, 39%; alluvium, 13%; lake bottom, 16%; and other deposits, 3%. Stratified-drift wetlands include wetlands on outwash, ice-contact deposits, glacial lake deltas, and other permeable deposits of glaciofluvial origin. Wetlands on other deposits include those on postglacial sand spits, sand dunes, and marine and estuarine deposits. Each kind of wetland receives, stores and transmits water in very different ways.

Till is the geologic term for material that was deposited directly by glacial ice during the ice age; bedrock or "ledge" is the term for hard, competent crystalline and stratified rocks which form the foundation of the landscape. Ground water in bedrock-till wetlands occurs in a "perched" condition above the poorly-permeable bedrock and till. These wetlands are underlain by relatively small amounts of water and for the most part owe their wet condition to periodic flooding and back overflow. For the above reasons bedrock-till wetlands are the least permanent of all: i.e., they can easily lose their "wet" character in the arid portion of climatic cycles. These wetlands do not contain enough water to supply towns or industries but they may contain enough water for adequate domestic supplies.

Stratified drift (including outwash and associated deposits) and alluvium, were laid down by surface streams and rivers. Alluvium was deposited by recent streams and stratified drift was deposited by streams flowing on, or from, glacial ice. Stratified drift was well sorted by running water and the fine-grained silt and clay was carried downstream or "flushed away". Consequently, stratified drift has high porosity and a great capacity to hold and transmit ground water.

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In stratified-drift wetlands and alluvial wetlands, ground water occurs in deposits of silt, sand, and gravel under water-table conditions; i.e., water will neither rise nor lower in a test well drilled through the saturated zone. Some wetland-associated deposits, where very thick, have the capacity to yield large quantities of water to wells. Because most stratified-drift wetlands and some alluvial wetlands are underlain by large quantities of water in storage and transit, they are more "permanent" than bedrock-till wetlands, i.e., they tend to keep their wetland character through changes of climate or through changes of stream regime.

As water from the melting glaciers deposited its burden of sand and gravel, fine grains of silt and clay commonly stayed suspended in the melt water until the water entered ancient glacial lakes. At one time these lakes were numerous and included large areas such as the Massachusetts portion of the Connecticut River Valley and Hockomoc Swamp in Southeastern Massachusetts where silt and clay slowly settled out to form fine-grained lake-bottom deposits. Most of these lakes drained and "dried up" when their outlet streams eroded through dams of glacial debris or where the retreat of the glacier resulted in water flowing away from the lake.

Two hydrogeologically different types of wetlands occur on lake beds of fine-grained silt. As in bedrock-till wetlands, some lake-bed wetlands are characterized by a shallow "perched" water zone fed by flooding surface streams; consequently, these wetlands can be readily modified by changes of climate or stream flow and are less "permanent". The second type is the most "permanent" of all wetlands because it is characterized by a deep zone of artesian water below the semi-confining lake beds. The source of the artesian water zone is commonly from a large surrounding area and therefore affected to a minor degree by changes in climate or local stream flow. The deeper zone of artesian water is usually under pressure and consequently the water slowly percolates upward through the clays to form a shallow perched water zone on top of the clays. This steady recharge from the deeper zone keeps the wetland in a constant "wet" condition. This shallow perched water condition may also occur in wind-blown sands or other shallow unconsolidated sediments.

What Specific Criteria Determine Ground-Water Values?

The following criteria are useful for evaluating the adequacy of wetlands for ground-water supply if the geology of the wetland area is known and if test wells have been drilled into the wetland and test-pumped.

TRANSMISSIVITY: the ability of a water-bearing formation or aquifer to transmit water to wells.

STORAGE: the amount of water in storage and available for pumping.

QUALITY: quality of ground water underlying wetlands (chemical and biological quality must meet Public Health standards).

In lieu of test drilling and other detailed information to accurately determine these criteria, an indirect and very rough estimate of ground-water supplies in wetlands can be made using two criteria:

1. Measurements of base flow of streams flowing out of wetlands. If the stream (or streams) leaving the wetland has a much greater flow than when entering, there probably is considerable ground-water movement and storage beneath the wetland.

2. Examination of surficial geology from published maps or unpublished geologic information in state and federal files is a rough index of the productivity of aquifers underlying wetlands. The highest-yielding aquifers occur in permeable deposits of sand and gravel such as glacial outwash plains, ice-contact deposits, and coarse alluvium. Some of the aquifers, however, may be buried beneath impermeable layers such as silt and clay of glacial lake beds and the aid of a trained geologist should be sought to help in using the maps. In Massachusetts about one-third of the state is covered by detailed geologic maps (published or on file in the Boston office of the U. S. Geological Survey) and our study has produced a generalized surficial geology map for the entire state (enclosed).

Benefits to Man and Some Precautions

Hydrogeologic studies indicate that wetlands are a valuable potential source of ground water. The number of wetlands underlain by productive ground-water supplies is large. The actual percentage can be determined only after field studies, but our studies indicate that this may be in the order of 40-50 percent. At least 60 Massachusetts cities and towns have municiple water production wells in or very near wetlands. At a time when increasing stresses from population, with attendant urban and industrial development, are causing more water demands, the ground-water occurrence in wetlands is relatively unrecognized. Improper development threatens to seriously impair this resource. For example, the improper placing of landfills can cause quality deterioration of wetland aquifers. Unrestricted urban development can "concrete over" critical aquifer areas, preventing infiltration of rain and snow-melt to recharge ground-water storage.

Wetlands are an integral part of the hydrologic system and they function for the benefit of man in other important ways. The low, flat surfaces of wetlands gather runoff from adjacent hills and allow the water level to build up as they slowly release water to streams, reducing peak flood flows. After wetlands are flooded, they may recharge water-bearing formations or aquifers for several weeks. For an even longer period, wetland water storage augments the low-flows of streams.

Wetlands also discharge considerable amounts of water through evaporation from pools of standing water, from soil moisture and through transportation of water by plants. Whereas recharge of water is intermittent, this discharge is continuous. Greatest discharge occurs during the summer months in the growing season. The total amount of water discharged during the year is roughly equal to the amount of recharge (under a constant precipitation regime). However, the timing and manner of discharge can vary, particularly if man enters the system. Wells, for example, can cause a greater artificial discharge of water and reduce natural discharge. Many wetlands are ground-water discharge areas where man can carefully and successfully compete with nature for his share of the discharge. However, man must not overdevelop the ground-water supplies by pumping more than the "safe yield" of the aquifer. The "safe yield" is that amount of water that can be pumped without depleting the aquifer or without impairing the water quality of the aquifer. Also, man should not overpump so that water levels are lowered to the depth that wetlands "dry up" or lose characteristics that make them desirable for wildlife, visual and cultural reasons. These limits can only be determined by careful field geologic studies.

ECONOMICS OF PRESERVING INLAND WETLANDS FOR WATER SUPPLY

Tirath R. Gupta and John H. Foster

When economists consider preservation of a natural resource such as a wetland, they think of the potential of the resource to contribute to social and economic welfare. Wetlands may be productive in both material and nonmaterial ways. They may be considered valuable as habitat for wildlife, they may have visual-cultural values, act as buffers against floods, may possess biological and educational values, be sources of water supply, and provide recreational opportunities.

Most, but not all, of these benefits are intangible and their values cannot easily be measured and expressed in terms of money. In other words, preserved wetlands constitute important common property resources, but the benefits from them will not be identified and priced by the established market mechanism.

The role of the economist in such a situation is to develop methods of making comparisons between benefits to society of wetland preservation and the benefits received by society when wetland areas are changed to some other use by filling, draining, or flooding. These latter benefits are called the opportunity costs of preserving wetlands because they are benefits which society gives up or does without in order to preserve wetlands. To arrive at the opportunity costs of preserving different types of wetlands in different locations throughout the state, the market price of such lands is being used as a base. This provides a good measure of the buyer's expectations of returns from alteration of the wetland in question. The logic here is that someone will buy a wetland for developmental purposes only if the expected annual return from such usage is greater than or equal to the interest the money paid for it would earn annually when invested elsewhere.

To be able to measure the social benefits from preserved wetlands, the economist must work with other disciplines. Once the data on benefits and opportunity costs are obtained, comparisons can be made to arrive at economically viable decisions whether to preserve or to alter wetlands. In this study, measures of wildlife, visual-cultural, flood control and water supply benefits from preserved wetlands are being developed. At this stage, we can provide one example to illustrate the approach.

This example is based on an examination of water supply economics of wetlands which lie over good acquifers. From this we are moved to suggest that a municipality can afford to pay $60,000 or more per acre for wetlands which have a high potential for municipal water supply. Moreover this may hold true for as much as 50 percent of the wetlands in Massachusetts. The approach is to use the cost of water supply from alternative sources to serve as a basis for arriving at the monetary value of water supply

from wells in preserved wetlands. To do this we assume that water is available, for a particular community, from another source at an equal distance from the wetland.

The U. S. Geological Survey has calculated the cost of supplying water from well fields in the North Atlantic Region (Cederstrom, 1970). Their study examined wells ranging from 300 to 1,400 gallons per minute (gpm) in yield and from 75 feet to 200 feet in depth. The cost of water per 1,000 gallons per day (gpd) at the well head was calculated by multiplying the capital costs by an amortization factor of 4.625 percent to find the annual amortization charge; and adding the annual maintenance charge to obtain the annual cost. This figure was divided by 365 days and then by the number of thousands of gallons of water pumped per day. Added to this was the cost of pumping the water at the rate of (@) $0.0009 per 1,000 gallons (Cederstrom, 1970). The cost figures thus calculated ranged from $0.0204 to $0.0221. On the average, this means a cost of 2.12¢ per 1,000 gallons of water.

Since these calculations were based on 1968 conditions, we have inflated the figure of 2.12¢ by 15 percent to reflect the rise in capital equipment prices and pumping costs.[1/] This produces an estimated cost figure of 2.44¢ per 1,000 gpd. at the well head for 1972.

This figure accounts for amortizing the capital costs of completing the well, maintaining and replacing the equipment, as needed, and the pumping costs. Since it does not cover the cost of management, we added 0.33¢ per 1,000 gpd., based on experience in the town of Amherst.[2/] This raises the total cost to 2.77¢ per 1,000 gpd. at the well head.

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[1]The choice of the correction factor was based on an approximation of the rise in the general index of wholesale prices in the United States between the years 1968-1972.

[2]The subject of cost of management of a well was discussed with some personnel of the Water Supply and Distribution Division of the Department of Public Works in Amherst. They hold that, on an average, it takes approximately one man hour per day to manage (i.e. routine checking, etc.) a well and the person is paid approximately $4.00 an hour. Given this information, the figure was arrived at as follows:

		$
(a)	Management expenses per well per day.	4.00
(b)	Management expenses per 1,000 gallons of water with a discharge capacity of $\frac{(300 + 1,400)}{2}$ or 850 gpm. or 1,224,000 gallons per day, i.e. $\frac{\$4}{1,224}$	0.0033

At this Juncture, we can assume that a central distribution point for a town is located at a distance of 4-5 miles from the well head and employs a 12" pipe. Given these assumptions, plus the facts that the fixed cost of laying a 12" pipe is approximately $14 per running foot and that a pipe of this size can carry 3-4 million gallons of water per day per 4-5 miles of distance, the transportation cost works out to be in the neighborhood of 1.5¢ per 1,000 gpd.[3] When added to the previous figure of 2.77¢, this means that the cost of water supply to a town, at its central distribution point, would be 4.27¢ per 1,000 gpd.

We recognize that this generalized figure cannot be applied to all situations due to geological differences and variations in prices of equipment. It is, however, useful for broad planning purposes and serves as our basis for arriving at water supply benefits from wetlands.

An alternative source of water for some towns whose wetlands have been destroyed, is the Metropolitan District Commission (MDC). The Commission charges the towns 12¢ per 1,000 gallons, irrespective of the distance of their central distribution point from the main reservoir.[4] This rate has been effective since 1962 (MDC, 1971, p. 7).

We can now compare this 12 cents with the 4.27 cents per 1,000 gallons which well water from their own wetlands would cost the towns. The difference is 7.73 cents or, in annual terms, about $28.00 per 1,000 gpd. This figure of $28.00 represents the difference between the yearly cost of groundwater from wetlands and from a convenient (and probably the cheapest) alternative source. In other words, if a municipality pollutes or destroys its water-bearing wetlands, thus making this source of water unavailable it is forcing itself to pay $28.00 every year for each 1,000 gallons of water consumed per day.

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[3]The figure was arrived at as follows:

(a)	Fixed cost of laying 12" pipe of 5 miles in length @ $14 per running foot	$369,600.00
(b)	Amortization cost per day @ 4 5/8 percent per year, i.e. $\frac{\text{(Fixed Cost X 4.63)}}{\text{(100 X 365)}}$	46.88
(c)	Cost of transporting 1,000 gallons of water per day for varying estimates of carrying capacity of the pipe, i.e. $\frac{\text{(Amortization Cost X 1,000)}}{\text{Carrying Capacity of the Pipe}}$	
	(i) With carrying capacity of 3 million gallons	0.0156
	(ii) With carrying capacity of 4 million gallons	0.0117
A reasonable estimate based on the last two figures appears to be		0.015

[4]This is the rate charged to thirty-two towns and cities in the MDC's water district. Special agreements with ten other cities and towns result in lower charges for various reasons. The main reason is that these towns/cities fall in MDC's watershed area.

It should be noted that the MDC is losing $3-4 million a year on its water supply account. This gap is expected to increase if the current rate of 12 cents continues (Boston Evening Globe, 1971, p. 22) and attempts have been made to raise the rate to 16¢ per 1,000 gallons (MDC, 1971, p. 1). A town that wishes to be newly admitted to the MDC's water district is also faced with an entrance fee of at least $250,000 plus a portion of the construction costs of a new pipeline and pumping station.

Returning to wetlands, we see that the figure of $28 is a conservative estimate of the difference between costs of wetland water and water from an alternative source. In the future, this difference may rise to between $43 and $298 per 1,000 gpd. per year. The $43 estimate is based on the proposed increased cost of MDC water supply (16¢ per 1,000 gallons) while the $298 figure is based on the minimum estimated cost of 86¢ for producing the same quantity of water by desalination from plants of at least one million gallons capacity per day (MAPC, 1971, p. 24). For the present, however, $28 per year for each 1,000 gallons of water per day appears to be a suitable figure for our purposes.

At this stage it would be desirable to have extensive data on the water supply potential of different categories of wetlands. Massachusetts lacks this information, but it is not unreasonable to say that some wetlands can provide 1,000,000 gallons of water per day.[5] In such an instance the water is worth $28,000 per year. Assuming a typical wetland of ten acres in size, these benefits would be $2,800 per acre of wetlands. If 4.625 percent is considered as the capitalization rate of interest, a town expecting increased water needs in the future can benefit by purchasing and saving this wetland as long as its price per acre is below $60,540. If an MDC charge of 16¢ per 1,000 gallons is considered, the equivalent figure would be $93,000. This implies that the recharge areas are legally protected so that the water in the wetlands will remain unpolluted.

For detailed economic analyses underlying this and related aspects of our research, consult papers by the authors in Appendix D.

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[5] Motts and Heeley, geologists cooperating in this project have estimated that high groundwater-yielding stratified drift and lake bottom deposits underlain by sand and gravel occur under as much as 50 percent of Massachusetts wetlands. The water production capacity (safe yield) of such wetlands varies from 0.25 to 3 mgd. While future and more detailed studies to determine the water production capacity of different categories of wetlands are needed, it is evident that the figure of one mgd here is not unreasonable.

Research Reporter - Fall 1975
University of Georgia

Pricing The Natural Environment

by Dr. Eugene P. Odum

HOW MUCH IS IT WORTH IN HARD CASH TO LEAVE OUR SALT MARSHES ALONE?

Cost accounting for industrial, commercial and residential development of property is well established in the United States. Developers can bring strong pressures to bear because of the nearly universal acceptance of evaluation techniques which show the cash value of a particular management alternative.

Against these evaluation techniques conservationists and natural resources economists have been at a disadvantage because of the difficulty of translating the value of natural or undeveloped areas into monetary terms. Frequently, the alternative management decision of leaving land in its natural state is not adequately or seriously considered.

As a step toward realistic economic evaluation of the natural or "undeveloped" environment, Dr. James Gosselink and R. M. Pope of Lousiana State University and I have calculated monetary values for marshlands and estuaries of the South Atlantic and Gulf Coasts. We considered four different aspects that might be used as a basis for computing dollar values for given areas of coastal estuaries: (1) by-product production (fisheries, etc.), (2) potential for aquacultural development, (3) waste assimilation values, (4) total life-support value in terms of "work of nature" as a function of primary production. (See Table)

The annual return per acre of fisheries that involves the harvest of naturally produced animals is based on summing average dockside value of fish and shellfish, "value added" in processing, Fish and Wildlife Services' estimate for the value of sport fishing, and dividing by number of acres of estauries that provide the nursery grounds for the harvest. The somewhat higher return for aquaculture is based on oyster-raft yields obtained at Bears Bluff Laboratory, South Carolina.

Values based on waste treatment work were calculated from the costs of secondary and tertiary treatment in waste teatment plants built and maintained by man. For example, very large amounts of phosphates can be assimilated by an estuary where vigorous tidal action is not impeded without appreciable effect on water quality because such an active system stores and recycles nutrients with great efficiency. The value for natural waste treating is calculated from cost of such treatment in tertiary plants. In other words, this is what man would have to pay if the estuary were not available to do this work free.

Finally, the estimate of a dollar value for total life support was calculated by dividing the annual gross primay production rate expressed as kilocalories by 10^4—a round figure factor representing the number of kilocalories equivalent to one dollar. Since productivity is a measure of a natural system's capacity to do all kinds of useful work—such as waste treatment, carbon dioxide absorption, oxygen production, raising shrimp, supporting waterfowl, protecting cities and beaches from storms, providing transportation and so on—then converting work energy to money is a quick and convenient way of evaluating the whole function of a given natural system.

The valuc of estuaries for waste assimilation and general life support is far greater than that accruing from by-products, as would be expected, since the latter represents only a fraction of work energy potential. In the past,

conservationists have attempted to justify preservation on economic value solely on such by-products uses, often inflating such values beyond reality. It is obvious that such partial evaluation not only cannot match real estate values (based on conversion of natural area to housing or factories), but they represent only a fraction of the real value of natural environment.

There are, of course, still other values of an esthetic and scenic nature that are not included in these economic evaluations. While most of us will agree that esthetic values can never adequately be translated into dollars, there are approximations that can be helpful. I recently asked a developer who is trying to "design with nature" to estimate the price he will charge for property with a view of the marshes and waterways, as compared with property without such a view. He replied that the former would be priced about twice that of the latter. Thus, we could use this increment in calculating "value added" for a permanently preserved natural area that is adjacent to developed residential property.

Demonstrating that marshlands and estuaries have a substantial dollar value in their natural state certainly provides a big boost to preservation of such areas that are in public ownership. If large values, such as those in our table, are generally recognized and accepted, then state or federal agencies or commissions which have jurisdiction over the property or resource will be less likely to lease, file away, or sell valuable marshlands for capricious development. Also, planners will have a greater incentive and public support for zoning such areas into permanent protective categories.

On the other hand, if the marshland is in private ownership, the owner will stand to gain by selling for development no matter how high the appraisal, since leaving the area in its natural state earns the owner little or no return. The dichotomy of interests between the value to the owner and the value to the society becomes an increasingly serious problem as population growth and industrial development accelerate. The pricing system as it now stands offers no solution to this problem since development becomes essentially an irreversible action. Thus, even though the value of marshland increases as it becomes scarcer, to an eventual point that its life-support value could outbid other land uses, there is no way to convert the previous development back to the former (and now more valuable) state. The irony of dependence on the price system is that it can make a reasonable-sounding argument for developing marshland (and it can offer an argument that a point will be reached when the land should be converted back to marsh), but it cannot effectively recreate marshland, a very expensive process, even if it were technically possible.

Evaluation of marshland as a renewable resource (e.g., as an income stream stretching into the future and increasing continually) represents one way to alleviate the destructive tendency inherent in the pricing system as it now operates. The time has come to seek ways to let the owners of natural resources with value to society receive a return. Direct purchase by government is one solution, of course; scenic or open-space easement and tax relief are other approaches. Setting up wetland "banks" where the owner is paid (or relieved of the tax burden) not to develop (as in soil banks) is perhaps a feasible "delayed option" procedure in cases where outright purchase cannot be made at a particular time. In New Zealand a new national law requires that an owner of coastal property must deed a 100-ft. strip back from high tide line to the state to be preserved in its natural condition in order to obtain a permit to develop the rest of his property. In this way both value to society and to the individual are preserved in a sort of compromise.

The best solution is a "look ahead" land-use which delimits the amount and location of life-support natural areas that will be necessary to support a future desirable level of population density, industrial and recreational development. Such areas can then be acquired or zoned into the public domain before the spiral of land speculation raises the market price beyond reason. ☆

Marsh-Estuary Dollar Values as Determined by Various Methods of Evaluation.

Basis for Evaluation	Annual Return per acre	Income-Capitalization Value per Acre (at interest rate 5%)
(1) Commercial & Sports Fisheries	$ 100	$ 2,000
(2) Aquaculture Potential		
(a) Moderate oyster culture level	630	12,600
(b) Intensive oyster raft culture	1,575	31,500
(3) Waste Treatment		
(a) Secondary	280	5,600
(b) Phosphorous removal[1]	950	19,000
(c) Adjusted tertiary[2]	2,500	50,000
(4) Maximum Non-Competitive Summation of Values		
(a) 1 + 3c	2,600	52,000
(b) 2b + 3c	4,075	81,000
(5) Total Life-Support Value[3]	4,100	82,000

[1]Mean of values from two studies (see work paper referred to in footnote at beginning of this article).
[2]Based on a BOD loading of 3.5 lb/day/acre, a level that can be assimilated by an average estuary without appreciably degrading water quality. Many estuaries are now assimilating far more than this; discharge into 5 mid-Atlantic estuaries averages 19.4 lb/day/acre. The cost of complete tertiary treatment of this amount for one year would be $14,000, making the income-capitalized value of these natural systems more than $280,000 for each and every acre.
[3]See text for calculation based on gross primary production.

Reprinted from: PROCEEDINGS FISH AND WILDLIFE VALUES OF THE ESTUARINE HABITAT - A seminar for the petroleum industry.Bureau Sport Fish and Wildlife.Atlanta,Ga. 1973

A DESCRIPTION AND VALUE ASSESSMENT OF SOUTH ATLANTIC AND GULF COAST MARSHES AND ESTUARIES

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The nature and value of a particular estuary is determined, to a considerable extent, by two considerations (1) geomorphological structure, and (2) the nature and magnitude of the energy "forcing functions" that directly or indirectly effect the metabolism of the ecosystem.

Georgia and adjacent south Atlantic estuaries are good examples of the coastal plain barrier island, or "bar built", class of estuaries. The bars that partially enclose the estuary vary from narrow sand strips to well-formed "sea islands", as is characteristic of the Georgia coast. Because the topography in this geomorphological class is very flat, water moves in great sheets over long distances. In Georgia, the tidal amplitude is especially large so that there is an enormous impact of tidal energy. These bar-built estuaries can be best thought of as energy-absorbing systems, and this is the key to understanding and management.

Georgia estuaries, as well as most others, are naturally subsidized ecosystems in which productivity is enhanced by the extra energy "subsidy" of water movement, much in the same way that energy of stirring and pumping increases the metabolism of an oxidation pond. The entire tideland complex of barrier islands, marshes, creeks and river mouths are linked together into a single operational unit. Each part of the system is dependent for its life-sustaining energy, not only on the direct ray of the sun, but to varying degrees on the energy of the tides. Organisms in these estuaries are adapted not only to cope with the stresses produced by tidal flow, but also to utilize this energy to promote their own growth

and productivity.

As shown in Table 1, the highest productivity in the salt marsh segment of the estuary occurs where tidal irrigation is greatest. Thus, these estuarine ecosystems routinely exploit "tidal power" as men have dreamed of for centuries. Therefore, it would be prudent for man to design his structure in such a way as not block or reduce this natural energy flow. It is also important to recognize and provide special protection for zones in the system that are especially productive and also those that are especially sensitive or vulnerable to man-made developments.

In terms of a broader ecological classification we often use the term "fluctuating water-level ecosystem" for the kind of natural order found in estuaries. The Everglades with its annual "tides", draw-down fish ponds and rice paddies are other examples where the rise and fall of water are vital to the maintenance of certain species and the enhancement of their productivity. This concept also became lesson No. 1 when it comes to practical matters of management. Terrestrial man, accustomed to the "terra firma", tends neither to understand the dynamism nor appreciate the beauty of these ecosystems; as a result he tends to want to confront the forces with artificial barriers and try and stabilize the environment because it's often inconvenient when the landscape doesn't stand still, especially to a race of men with a strong property-owning ethic. Gradually the public, and even the powerful governmental agencies, such as the Army engineers who are sometimes too much nourished by pork barrel politics, are beginning to realize that confronting high energy forces head-on requires a great deal of money. Even more important, blocking or stabilizing the flow removes the useful energy input along

with the stressful, resulting in an immediate decline in productivity. The energy absorbing system then becomes an energy blocking system that is vulnerable to erosion and washouts when storms come. The idea is thus dawning that it just might be cheaper and maybe even better to design with the grain rather than against it.

The structure of the tideland ecosystem is shown in a very sketchy manner in Figure 1. This sketch relates to Georgia, but could apply to most south Atlantic and Gulf coast estuaries. The extent and importance of zones may vary widely over the southern coastal zone. On the Gulf coast, and also North Carolina there are more lagoons and less marsh behind the barriers. In areas of Louisiana, the fresh and brackish water marshes are more extensive than the salt marshes. Principal zones are indicated and briefly described in the legend. The beach and active dunes, and the marshes are the sensitive zones because they receive and must absorb tidal and also storm energy head on. These are the zones that must be preserved in a natural condition, not only to insure high production for the whole system, but to protect man-made developments on islands and mainland shores. The futility of trying to confront natural forces with sea walls, etc., is becoming more evident as we observe the failures of past efforts. For example, it is now clear that no rigid, substantial structures should be placed on the active beach and dune zone, for two reasons: (1) such structures will be subject to damage from storms, which results in hugh "disaster relief" bills that all of us, as taxpayers, are called upon to bear, and (2) in the natural strand



Figure 1. Cross section of the Georgia tideland ecosystem, the principal zones - all of which are linked together by tidal energy - are as follows: 1. beach, 2. active (unstable) dunes, 3. stabilized dunes, 4. back-dune slough (important run-off trap for storm water), 5. sea island proper, 6. forest-marsh edge, 7. Juncus-salicornia high marsh, 8. short Spartina high marsh, 9. middle marsh (small creeks, 10. tall spartina marsh (large creeks), 11. river mouth with brackish marshes, and 12. mainland coastal plain.

the energy of high tides and storms is dissipated gradually over large areas of yielding sand. Rigid structures, including sea walls, constructed to protect the inappropriate housing, results in the energy of the water being deflected back on the beach, which then becomes rapidly eroded and steep. Thus, any effort to protect structures placed too close to the ocean front results eventually in degrading the beach, which is the very resource people value so much.

Houses, apartment, condominiums or what not, if they are to be built at all, should be built only on stabilized land, and preferably up on pilings so storm water can flow under without harm to anything. In this way, the beach and dunes are preserved for all to enjoy and the view from the houses is better anyway.

Much the same can be said for marshes; water must move freely through channels and over the marsh so that energy can be dissipated and used by organisms, and also so sediments can be distributed evenly over many acres. Fortunately, Georgia now has a Marshland Protection Act which requires that proposed alteration of the marshland be submitted to a commission which has power of disapproving alterations or construction that adversely affects the natural flow and productivity. Sentiment in the state is building for a similar Act to protect the beach-active dune zone.

In evaluating large expanses of tidal marshes, it is important to recognize major zones which differ in their ability to produce organic matter and to treat wastes. In Georgia it is convenient to recognize 3 major zones in the S. alterniflora marsh.

1. The tall Spartina streamside stands that border the marsh creeks. Mature stalks grow 3-4 meters (6 feet or more) about the banks. In better locations they number about 40 per square meter, with, depending on the season, a varying number (up to 140/M^2) of smaller, "understory" stalks.
2. The medium Spartina middle marsh stands in the vast interior where creeks break up and dead end in a dendritic pattern. Similar stands also grow on far sides of stream banks (natural levees). Here mature stalks measure 1-2 meters (3-6 feet) and number 60 or so per square meter with numerous small understory stalks.
3. Short Spartina stands on the high marsh, reached only by high spring tides or in stagnant lower areas where tidal irrigation is also less frequest. Here stalks are small, 0.4 to 1 meter (1-3 feet), but numerous, up to 200 or more per square meter.

Our most recent estimates of the annual net production of the three zones is shown (in round figures) in Table 1. Also shown is an estimate, for comparison, of a Spartina cynosuroides stand growing in the brackish or freshwater along coastal rivers and comparable estimates for yield of three crops. Remember that by net production we mean the organic matter available to the rest of the community (or man) after the plants have respired what it needs for its maintenance. In coastal Georgia about 60% of marsh area is occupied by tall and medium stands and 40% by high marsh stands.

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Table 1. Annual Net Productivity of Spartina Marsh Grasses in Major Habitat Zones of Georgia Coastal Marshes.

	Dry Weight	
Spartina alterniflora	gms/M^2	Tons/acre
Tall grass, streamside stands	4000	17.8
Medium grass, middle marsh stands	2300	10.2
Short grass, high marsh stands	750	3.3
Spartina cynosuroides		
Tall grass, river bank stands	2000	8.9
For Comparison:*		
Sugar Cane, Hawii	-	14.7
Corn, U.S.A.	-	5.7
Corn, world average	-	3.1

*These crop productivity estimates are based on annual dry matter yields of the whole above-ground plant, not just the edible portion; thus, figures are comparable to those given for marsh grasses.

The difference between the productivity of the streamside stands that receive vigorous, daily tidal irrigation and the other stands that are less frequently or less vigorously flooded gives an indication of the extent to which Spartina grass is able to cope with and benefit by tidal energy. Where naturally subsidized in this manner, productivity equals or exceeds man's best agricultural crops (Table 1). Of course, man's crops are also subsidized, but by tractor fuel, fertilizers, etc., that enable the plant to make maximum use of the sun. It is interesting to note that the very high yields now being obtained with the use of the new "miracle grains" are the result of breeding varieties, not so much to improve their ability to utilize sun energy, but to improve their capacity to benefit from intensive cultivation and very heavy applications of chemicals (fertilizers, pesticides, herbicides, etc). Man pays an increasingly high price for his crop subsidies, while all of the energy in the tidal marsh is free!

When we first reported that the Georgia salt marshes were very productive, we were not able to fully explain it. When one considers that high light intensity, high summer temperatures, high salinity and the unstable substrate that is anaerobic (without oxygen) below the top few centimeters all tend to be "metabolic drains" on spermatophytic plants, it is a wonder that the marsh grass has any energy left to produce anything! The tidal subsidy is, of course, part of the answer, but it remained for a team of Australian plant biochemists to discover in 1966 that some kinds of grasses and a few non-grass species utilize a photosynthetic pathway that avoids almost entirely the photorespiration which burns up stored food reserves

in the ordinary plants when temperature, light and water become stressful. It turns out that Spartina grasses belong to this class of plant (now designated as "C_4 type plants" in contrast to the more common "C_3 types" - the numbers referring to the number of carbon atoms in the first product of CO_2 fixation). Thus, the lab boys finally verified what us field men have known for a long time: Spartina alterniflora is something else!

Two other features of estuaries are important considerations in determining values. (1) The fact that estuaries, especially those with large areas of shallow water marshes or sea grass beds, are important "nursery grounds" for seafood organisms is now well accepted and need not be documented here. (2) Because of marked vertical circulation patterns, active sediments, and large populations of filter and deposit feeders, estuaries are nutrient traps which have great capacity to absorb and utilize nutrients such as phosphorous and nitrogen. Because estuaries are naturally loaded with organic matter, they cannot be very effective as secondary treatment plants for man, but they are extremely effective tertiary treatment plants. It would be prudent for man to treat organic matter in artificial treatment plants (and avoid oil spills) in order that he can benefit from the "free recycling work" for which estuaries are especially well adapted. Since tertiary treatment is very expensive (compared to secondary treatment), when carried out in artificial systems, the capacity of estuaries for tertiary treatment constitutes one of the most important economic values of high energy estuaries.

. Drs. James Gosselink and R. M. Pope,of Lousiana State, and I have

recently made a detailed analysis of alternate methods of evaluating natural tidal marshes in monetary terms. We calculated economic values on four bases (1) value of natural by-products (fisheries, etc.), (2) aquaculture potential, (3) waste treatment potential, and (4) total life support value calculated by converting productivity into dollars on the basis of the national GNP/energy ratio of one dollar to 10,000 Kilocalories. The rationale here is that this is the logical way to cost-account the "free" work capability of the estuary. While the annual return from by-products is in the range of only about $100 per acre, waste treatment and life support values are 20 to 40 times as great - $2,000-4,000 per acre per year. Income capitalization of these annual monetary values indicates that an acre of productive marshland is actually worth $80,000 per acre in terms of the useful work done for man.

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July 15, 1976

Mr. Pete Sullivan
C/O National Wildlife Federation
1412 16th St. NW
Washington, D.C. 20036

Dear Mr. Sullivan:

At your request I'm providing you information on the importance of Wetlands in New Jersey. Probably the best way to do this is to (1) provide you with a list of my publications which demonstrate the importance of the marshes and (2) to provide extracts from these publications which summarize the importance.

Copies of publications enclosed:

1. 1965 Good, R.E. Salt Marsh vegetation, Cape May, New Jersey. Bull. New Jersey Academy of Science 10: 1-11.

2. 1974 Squiers, E.R. and R.E. Good. Seasonal changes in productivity, caloric content, and chemical composition in a population of salt-marsh cordgrass (Spartina alterniflora). Chesapeake Science 15: 63-71.

3. 1975 Slavin, P.T., R.E. Good and E.R. Squiers. Effects of three mosquito larviciding oils on production of salt marsh Spartina grasses. Bull. Environmental Contamination and Toxicology 13: 534-536.

4. 1975 Good, R.E. Production of New Jersey tidal marshes. Bull. N.J. Academy of Science 20:42.

5. 1975 Good, R.E. and N.F. Good. Vegetation and production of the Woodbury Creek-Hessian Run freshwater tidal marshes. Bartonia 44: 38-45.

6. 1975 Good, R.E., R.W. Hastings and Roy E. Denmark. An environmental assessment of Wetlands: A case study of Woodbury Creek and associated marshes. Rutgers Marine Sciences Center, Technical Report 75-2. 49 p.

No 1
Publication details the functioning of a New Jersey salt marsh. In No. 2 the role of nutrient enrichment of the detritus is discussed

and its importance is summarized on page 70 as:

"Whether this nutrient enrichment occurs in suspended detritus or at the soil surface, the end product is a good source far richer in protein than the grass tissue from which it was derived. This is the litter-detritus link which forms the major bridge between the autotrophic and the heterotrophic levels of the estuarine system (Teal, 1962)."

Publication No. 4 is an abstract of a summary paper presented on N.J. marshes and is reproduced below.

Productivity of New Jersey tidal marshes. — Ralph E. Good, Biological Sciences, Rutgers University, Camden.

Tidal marshes exist on a more or less continuous line from Hackensack Meadows in the northeast portion of New Jersey southward to Cape May Point and northward up the west coast of New Jersey to the upper tidal limit of the Delaware River at Trenton.

Of the approximately 300,000 acres of marsh, probably over 200,000 of these acres are of salt marsh types which are dominated principally by cordgrass (*Spartina alterniflora*) in one of its several height forms. Other major species include salt hay (*S. patens*) and spikegrass (*Distichlis spicata*). Freshwater marshes exist from the Delaware Memorial Bridge northward, as well as upriver on all major tidal streams. Principal freshwater species include the annual, wild rice (*Zizania aquatica*) as well as spatterdock (*Nuphar advena*) and arrow-arum (*Peltandra virginica*). Common reed (*Phragmites communis*) is an important component of disturbed areas both of fresh and saltwater marshes.

Much emphasis has been placed on marsh productivity because of its contribution to the food webs of adjacent coastal waters. Further interest has developed since some investigators have identified the marshes as natural tertiary treatment centers.

Productivity of the tidal marshes varies with the species and marsh conditions such as flooding and salinity. Aboveground productivity values for *Spartina alterniflora* may reach 1600 g/m².y (tall form) and 700 g/m².y (short form). Values for *S. patens* and *Distichlis spicata* may approach 600 g/m².y. The freshwater species *Zizania aquatica* can have values close to 1600 g/m².y with values of 600 g/m².y for *Nuphar advena* and *Peltandra virginica*. These values are generally comparable to values obtained for similar marshes from Long Island to North Carolina. While most tidal marsh studies do not include data on belowground production, recent New Jersey investigations indicate the existence of considerable belowground biomass.

Publications 5 and 6 detail the ecology of a freshwater marsh. Since the report (No. 6) was written to present their overall value in a section entitled ENVIRONMENTAL STATUS, I'm reproducing those three pages as part of this letter on value of Wetlands in New Jersey.

(See attachment)

If I can provide additional information please let me know.

Sincerely,

Ralph E. Good

Ralph E. Good
Associate Professor of Botany
and Associate of Center for
Coastal and Environmental Studies

REG/rl
enclosures

ENVIRONMENTAL STATUS

The marshes of Woodbury Creek and Hessian Run as presently constituted represent a viable ecosystem with all components apparently functioning. The plant species and communities are typical for the area and exhibit the high levels of productivity so often found in marsh systems. These marshes are heavily dominated by wild rice which is usually considered to be of high value as wildlife food. Although much reduced from their former extent by landfill, the Woodbury marshes still provide considerable habitat for a wide range of animal life. The summer bird fauna includes the larger marsh birds such as herons, egrets and yellowlegs and a breeding pair of red-shouldered hawks. Many upland passerine birds use the edges of these marshes. With the ripening of wild rice red-winged blackbirds use the marsh in great numbers. Because of the June-November study period, the migratory waterfowl could not be adequately observed. There is ample food, however, for winter waterfowl. Wetland mammals, such as muskrats, and aquatic turtles are fairly common.

The Woodbury marshes are functioning as viable nursery grounds for two commercially useful species of clupeid fishes, the alewife and blueback herring. A total of seventeen species of fish were collected in Woodbury Creek and Hessian Run. The large numbers of mummichog should be adequate to control mosquito breeding in any parts of the marsh accessible to fish.

Probably the poorest component of the animal life on these marshes is the benthos. Species diversity was rather low and generally dominated by tubificid worms and leeches, both of which are generally indicative of high organic load. The benthic community appears to be limited by the low habitat diversity and the low levels of dissolved oxygen recorded in the summer months. The prevailing substrate is soft, organic silt generally devoid of logs, rocks, roots or other materials which can provide microhabitats for aquatic invertebrates. There is little habitat here for any organisms requiring sand or gravel substrates. Low dissolved oxygen is perhaps an important limiting factor for the benthic organisms. Some oxygen stress is probably also present for the fish. The low levels of dissolved oxygen at Woodbury in the summer are not surprising since the water coming in from the Delaware has essentially no dissolved oxygen during periods of the summer so that in comparison these marshes have substantially improved water quality. Improvement of dissolved oxygen levels partially takes place because tidal flushing is strong and the marsh and streams fluctuate between mostly exposed mud at low tide and standing water at high tide. The presence of fairly high levels of coliforms can also be traced to Delaware River water since Woodbury Creek no longer directly receives sewage effluents. Marshes such as Woodbury perform an important, often overlooked, service in improving the quality of polluted waters. In addition to improving dissolved oxygen, the marsh plants tend

to lower nutrient levels, converting them to biomass which may be of value to wildlife. Grant and Patrick (1970) showed that the Tinicum marshes reduced nitrogen and phosphorus levels of the water flooding on the marsh surface.

Recently Gosselink, et al (1974) have proposed a method to calculate the dollar value of marsh incorporating the various functions of the marsh. The obvious value in terms of hunting and fisheries generally amounts to only $100.00 per acre or so. If this alone is considered the use of the marsh in more developed ways is economically sound if aesthetics and other non-tangibles are disregarded. The value of a marsh as a sort of natural tertiary waste treatment system increases the value to about $2500.00/acre which makes its preservation economically justified. The following quote from their paper sums the concept: "Thus the economic value of estuaries as tertiary treatment plants can be valued in tens of thousands of dollars per acre as compared to mere hundreds that accrue from by product uses."

The authors further value the marsh by converting the energy fixed by the marsh (gross primary productivity) into dollars based on the ratio of gross national product to national energy consumption. This concept increases the value of the natural marsh to perhaps $4000.00/acre. The authors further indicate that if the value is income capitalized at 5% interest the estimated total social value reaches $50,000.00-80,000.00/acre. These values are expressed concisely in Table 20 adapted from their paper.

If the Woodbury Creek marshes are evaluated on this basis the 135 marshland acres could be valued at $6,750,000.00 using the $50,000.00 per acre figure or $10,800,000.00 using the $80,000.00 per acre value.

In this frame of reference marshes like Woodbury are more valuable than they appear to the casual observer. The extent of similar freshwater marshes as reported in the RANN report (Walton and Patrick, 1973) along the tributaries of the Delaware from Trenton to the Delaware Memorial Bridge is relatively small in comparison to the amount of saltwater marsh to the south. Yet it is in this region that is so heavily impacted by industrial and domestic effluents, that the need for water quality improvement is the greatest. Much marshland has been destroyed by dredge spoil and landfill in the last 30 or 40 years. To further reduce the remaining natural marshes along the Delaware and its tributaries can only further reduce the viability of the system.

TABLE 20. Marsh-Estuary Values as Determined by Various Methods of Evaluation (after Gosselink, et al, 1974)

	Annual return/acre	Income-capitalization value interest (5% rate)
(1) Fisheries	$ 100	$ 2,000
(2) Waste treatment		
a. secondary	280	5,600
b. phosphate removal	950	19,000
c. tertiary	2,500	50,000
(3) Sum of maximum non-competitive use (1 + 2c)	2,600	52,000
(4) Life support value (based on conversion of productivity to energy (calories) with 10^4kcal valued at $1)	4,100	82,000

THE SOUTHERN RIVER SWAMP — A MULTIPLE-USE ENVIRONMENT

by

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Bureau of Business and Economic Research
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Georgia State University

May 1970

SECTION VI

THE RIVER SWAMP ECOSYSTEM – CONCLUSIONS AND RECOMMENDATIONS

ABSTRACT – The destruction of the river swamp ecosystem is on a massive scale throughout the Southeast. The Florida cross-state barge canal will wipe out one of the last great wild rivers, and 1,600 square miles of Louisiana swampland is under death sentence. It is time, as Eugene Odum proposes, to accept a "one man, one hectare" concept along with the popular "one man, one vote" idea. The river swamps are mandatory greenbelts – Georgia needs two-fifths of its land as open space. It is absurd to commit Alcovy area residents with a 100-year debt based on a 1969 economic product of an agricultural nature. Massachusetts has passed legislation protecting 300,000 acres of inland wetlands but has no channelization problems. The threat of channelization in the southern states makes it prudent that each state declare a 2-year moratorium, make an immediate inventory and analysis of wetlands, give tax relief to swamp owners, and provide funds for easements to pay swamp owners for keeping swamp in its natural state. The value of the Alcovy is high enough to warrant immediate purchase by the state as a scenic river of inestimable future value in education, public use, water quality, water quantity, and especially valuable to metropolitan Atlanta. It is suggested that the Soil Conservation Service purchase the Alcovy and other swamps and establish a system of soil and water conservation preserves or river parks, for these protective landscapes are vital to the conservation of America's soil and water resource base. It was the intent of the Water Resources Council in Senate Document 97 to recognize the multiple uses of wetland environments. Apparently this document provides a basis for considering the destruction of features of the natural environment as costs to be weighed against benefits. Evidence suggests that the Soil Conservation Service is following certain stipulations of the Document and ignoring others. Soil Conservation projects deal with individual watersheds – every inch of Georgia is in a watershed, some of which have values that reach far outside their hydrologic boundaries. Public Law 566 should be changed to allow other than agricultural interests to have veto power over individual projects that are contrary to the best interests of community, state and nation.

The loss and mismanagement of our inland wetlands is a fact. Huge and costly mistakes have been made by a number of organizations, including the U.S. Corps of Engineers. Most of these errors have been made in not considering the far-reaching impact of an engineering procedure on the complex ecology of the flood plain ecosystem, and by concentrating on a single goal, such as navigation or flood control. Martinez and Durham (1969), speaking of the Mississippi, state: "The U.S. Army Corps of Engineers has endeavored to enhance navigability and to protect the natural levees by controlling floods and stabilizing banks. In so doing, however, they have eliminated the river's ability to construct new natural levees through deposition at the time of overflow. Meanwhile, inability to completely stabilize banks has resulted in the loss of previously existing natural levees."

In concluding their studies of the Mississippi delta area, these authors state, ". . . we want to stress the interactions which follow single purpose acts designed to change conditions in this kind of region and to emphasize the need for early study and thought of unfavorable feedback."

The attack on inland wetlands in the Southeast is massive. Wood (1955) has said, " . . . drainage in combination with flood control has probably eliminated more good wetland habitat than all the other adverse influences to which southeastern wetlands have been subjected." He has pointed out that local gains from reservoirs ". . . are counterbalanced by losses of valuable wetlands downstream due to flow regulation, flood protection, and drainage, hence do not represent overall benefits."

In Louisiana the Atchafalaya Basin is an enormous area involving 1,600 square miles, one of the greatest natural wetlands in the world. To quote Martinez and Durham, "The streams, lakes, swamps and wildlife within and without this system have been drastically altered. . . " In South Carolina, the Santee-Cooper story is a sad and shocking chronicle in the history of inland wetlands. It involves such things as cutting and chaining to the bottom great cypress logs, the dredging of a new channel which is silting up Charleston harbor, the demise of the ivory-billed woodpecker – in short the wrecking of one of the South's greatest swamps.

In Florida, the cross-state barge canal project* is an example of the destruction of a magnificent wild river system by a plan which might have been reasonable years ago when wild rivers were common in the state. Now, with its once great natural scenic wetlands reduced by channelization, landfills, and development to small vestiges here and there, it is tragic that the Corps of Engineers considers a couple of lakes, an endowment which Florida has in oversupply, equivalent in recreation value to the Oklawaha River and its swamp. Ecologists believe that the enriched and impounded river will become a hyacinth-choked nightmare, requiring tons of herbicidal poisons to keep it clear for boat traffic. To destroy the Oklawaha swamps a giant device has been devised with the combined weight of six bulldozers to crush the cypress and gum trees into the mud. Public-spirited citizens have taken an injunction against the Corps to save half of the priceless 33 miles of the river. All over the nation citizens groups are organizing legal sections to take agencies to court for the destruction of our environmental heritage. As in the case of the Alcovy, the loss of the many values of the natural Oklawaha ecosystem was *not considered a cost.* Both citizens and scientists are alarmed particularly over the vulnerable wetlands. Recognized authorities on wetlands such as Eugene Odum and William Niering are deeply concerned.

Odum (1969 b) indicated that government agencies, spurred by popular and political enthusiasm, are putting on drawing boards plans for damming every stream and river in North America. He indicated that while soil conservation organizations are dedicated to ecologic units such as watersheds, and are potentially capable of speaking for the "whole" ecosystem, "they have remained too exclusively farm-oriented, and have not risen to the challenge of the urban-rural landscape. . . ." Odum repeatedly stresses the wisdom of a balance of "young" environments (for production, growth, quantity) on one hand, and "mature" environments (offering protection, stability, and quality) on the other. The Alcovy is an example of the latter. It offers protective husbandry and sustained use of both sur-

*See "Rape of the Oklawaha" by James Nathan Miller, *Reader's Digest*, January, 1970.

face and underground supplies of nutrients and water, and at the same time it provides the production of quality and diverse products for people as well as diverse recreational experiences.

Odum states: "Until we can determine more precisely how far we may safely go in expanding intensive agriculture and urban sprawl at the expense of the protective landscape, it will be good insurance to hold inviolate as much of the latter as possible. Thus the preservation of natural areas is not a peripheral luxury for society but a capital investment from which we expect to draw interest." Odum reiterates Hardin's (1968) solution to the current tragic destruction of areas and environment (such as air) which are the common property of all of us, "mutual coercion, mutually agreed upon by the majority of the people," and suggests that restrictions in the use of land and water might be ". . . our only practical means of avoiding overpopulation or too great an exploitation of resources, or both." He makes the significant observation that ". . . society is concerned – and rightly so – with human rights, but environmental rights are equally vital. The 'one man, one vote' idea is important, but so also is a 'one man, one hectare' proposition." Odum, who has proposed a "marsh bank" to hold inviolate the natural food factories of the salt marshes, proposes that law schools supply a new breed of lawyer who can clarify environmental issues and draw up "new, enabling legislation for consideration by state and national governing bodies."

Niering (1968), speaking more directly of the cities, observes that "with the possibility of our population doubling within the next forty years this is the decade of action. For the urban environment it will mean increased open space, maximum habitat diversity and assure a higher level of environmental quality in perpetuity," and proposes that the nation adopt a national wetlands policy.

Platt (1969) says that channelization of the Alcovy River is a sharply drawn issue, "Shall the sheer weight of government bureaucracy be allowed to despoil our inland rivers and river swamps?" In summary Platt continues, "The issue is 'who shall make the irrevocable ecological decisions affecting irreplaceable biological resources?' Shall it continue to be the engineers and economists alone as in this case, or shall it be by representation from these and from all other aspects of science and society? The outcome of the Alcovy issue is of national significance."

Growing numbers of public and private agencies have expressed their alarm over the avalanche of watershed proposals involving the dredging of artificial channels. Unfortunately most of their concern frustratingly found audience only among themselves, somehow never reaching the public consciousness. Weaknesses of P.L. 566 programs were summarized by Poole (1968) of the Wildlife Management Institute. Stuart (1964) presented an analysis of P.L. 566 recommending elimination of channelization. Russell (1963) of the Kentucky Fish and Wildlife Resources Department discussed the catastrophic effects of 566 projects and indicated that ". . . lowland woodland habitat comes the nearest to a multiple use concept of any wildlife environment. . . ." He also found that wildlife habitat destruction far outweighed any possible benefits under P.L. 566 programs. Barick (1964) reported that his group examined nine streams channelized by P.L. 566 projects and detailed the impact on swamp hardwood tree production: "Participants observed clear cut evidence of tupelo gum damage and destruction through excessive water removal . . . the present drainage design is based upon the erroneous assumption that these areas have no significant value." Forrest Durand (1963), while director of the Tennessee Game and Fish Commission, expressed the growing concern of many state agencies that P.L. 566 projects are very questionable where the resources being lost are in short supply while those gained are already in oversupply. He challenged the current idea of getting water that cannot be put behind dams off the watershed as soon as possible, reversing the past philosophy of holding it there, a philosophy which had originally helped enact P.L. 566. Allen's (1968) report on channelization's impact on fish and wildlife revealed that all thirteen southeastern states felt that channelization posed a serious threat. George Bagby, Director of Georgia's Game and Fish Commission, has gained national recognition for his firm stand against channelization of the Alcovy River. His report (1969) indicates that his department has written many letters objecting to channelization in S.C.S. projects. Bagby cited the resolution adopted by the Southern Division of the American Fisheries Society at their October, 1968, meeting, asking that the S.C.S., T.V.A., and the Corps of Engineers halt further watershed projects until economic evaluations could be made. He also called attention to the statement from the President's Council on Recreation and Natural Beauty in "From Sea to Shining Sea": "The Council proposes that federal flood control . . . projects seek to retain or restore natural channels, vegetation, and fish and wildlife habitats on rivers, streams and creeks and apply the same policy to federally assisted public and private projects affecting rivers, streams, and creeks." An equally aggressive stand has been taken by Charles Kelly, Director of Alabama's wildlife agency. In his report* he stated: "From the very beginning, public monies have often been used to develop agricultural resources which directly benefit the individual landowner at the sacrifice of such public resources as fish and wildlife, the loss of which is felt by many people. From the trout streams of North Carolina to the gulf coast, channelization has played havoc with our valuable fish and wildlife habitat." As Kelly points out, trout streams are far from exempt. It was only after a bitter fight by the U.S. Forest Service and others that the S.C.S. agreed not to channel the headwaters of the French Broad River, a complex of cold water streams in the North Carolina mountains. Recently the Soque River, a producer of large brown trout in the North Georgia mountains, has been authorized for channelization. Kelly has said that channel construction alone usually costs several times more than the market price of the land alleged to be benefited, and that "a closer look reveals that in almost all instances the amount of money to construct the channel, if placed in savings at the current interest rate, would more than pay for annual losses of each landowner, incurred as a result of floods." It is obvious that Public Law 566 must be amended, and rapidly.

The Alcovy work plans imply that 4,327 acres of swampland could be drained for creating additional farmland. Administrative policy set forth in para.

*As President, to the Southeastern Association of Game and Fish Commissioners' Conference, New Orleans, 1967.

101.101-101.103, Chap. 1, Part 1, *Watershed Protection Handbook*, S.C.S., U.S.D.A., states: "No P.L. 566 financial technical assistance will be provided for projects in which monetary benefits accrue primarily from bringing additional land into agricultural production."

As I have previously stated (1969): "Something is fundamentally wrong when any organization can, without basis in sound ecological study, destroy a large life system (ecosystem) of great potential value to its owners and to the people of the entire state. It is fundamentally wrong to expend public funds to help private citizens, while the pleas of public agencies and professionals are ignored. The implications of the Alcovy go far beyond this river."

I hope that I have set forth the major functions of the river swamp and have made a reasonable estimate of their value. There are, of course, other, less tangible values and uses of southern streams and their swamps. They provide a green belt of open space that cannot be occupied by man, almost a mandatory buffer zone, and this may turn out to be one of their major contributions. A class study at the University of Georgia reported by Odum (pers. comm.) suggests that, to maintain the quality life Americans are accustomed to, and based upon an optimum population level, two-fifths of land area in Georgia should be open space, in a partial or complete natural state. The Alcovy and similar swamps could comprise the backbone of open space corridors.

The southern river swamps, exemplified by the Alcovy, are prime recreational areas. Millions of people have been vn to the Everglades and Okefenokee to explore these hauntingly "different" environments. As Aldo Leopold (1960) has noted, the "contrast value" of an outdoor experience makes it valuable. Wistendahl (1958), writing of the Raritan River Floodplain in New Jersey, stated, "The diversity of habitats within small areas makes a flood plain ideally suited for natural area reservations in such highly populated areas. . . ."

Eugene Odum (pers. comm.) has suggested that, as with other fluctuating water level ecosystems, there is always the prospect of aquaculture – the raising of algae and fish on the food produced in the swamps, now fed or flushed into the stream itself. Only now are we beginning to realize the potential of farming the edge of the sea, and pilot operations for "marsh farming" are underway on the Georgia coast and on the eel-grass flats at Cedar Keys, Florida.

One major point for the protection of the swamplands is often overlooked, that is, that our agricultural base is constantly changing. Land in Georgia farms has steadily dropped from 11,000,000 in 1940 to 7,000,000 in 1967. Commodities are changing. In this light, it is not wise to plan on cows eating grass on the Alcovy bottomland for even twenty-five years. In twenty-five years it is very likely that beef cattle will be fed in concrete stalls, or their place will be taken by more efficient meat producers. Would it not hang heavy on our conscience to indebt the citizens along the Alcovy River for 100 years to pay for the present pr t plans based upon a 1969 economic product, the future of which is quite uncertain?

In view of the large total value of the swampland (see *Appendix 7*) and the concerned advice of ecologists and others, it is evident that a systematic plan to evaluate our inland wetlands is indispensable.

Massachusetts (1968) surveyed the water resource activities of six other states, New York, New Jersey, Kansas, Kentucky, Florida, and California, and arrived at the following summary: "In general what are the alternatives and approaches? First a state may choose to build its own facilities or it may rely on Federal or local agencies for project construction . . . . Second, a state may decide to prepare a state-wide development plan for water resources. . . . Third, a state may organize all or most of its water resource functions into one major agency or it may distribute them over a number of agencies. There is no single best approach. . . ." ". . .the needs of the various states are strikingly similar. All feel the need to coordinate the multifaceted water programs of Federal, state, local and private groups. All are concerned with the most advantageous management of their water as a limited resource and as the key to future development in competition with other states. And all find it necessary to pay for these water resource programs and to get the most for their money. . . .In sum, the states are all faced with the problem of deciding on a unified water resource policy."

The Massachusetts Division of Water Resources under the Department of Conservation indicates (pers. comm.) that their major effort (they have engineers, planners, and biologists assigned to the task) *is to identify and evaluate the wetlands of the state, watershed by watershed.*

But, instead of waiting until final evaluations, Massachusetts has recently passed legislation protecting more than 300,000 acres of inland wetlands based upon its distribution on U.S.G.S. quadrangles and aerial photographs. An effective law requires that application be made for any encroachment on wetlands; after study, specific restrictive instructions are given to applicants. This state has approved a ten million dollar bond issue to reimburse landowners for the loss of certain rights of use to their wetlands. This is as it should be. We must reimburse landowners by scenic easements or reduction in taxes to reward them for keeping their swamp in a natural state. In another report (1969), I have sought to enumerate the advantages to landowners of holding natural swamplands. Fortunately for Massachusetts, channelization is not a problem, and S.C.S. emphasis there is on the construction of small reservoirs.

Georgia and other southern states are faced with the increasing use of channelization. Since a state must have some time to inventory and analyze its most outstanding inland wetlands for their use in education, recreation, science, and for their natural functions, and in view of the alarming rate at which watersheds are being modified under Public Law 566, the following EMERGENCY ACTIONS are SUGGESTED:

1. *Moratorium on channelization* – A statewide suspension of this flood control technique should be placed into effect for a period of not less than two (2) years.

2. *Inventory of inland wetlands* – An appropriate agency(ies) should be required and funded to conduct, with ecologically oriented personnel, an immediate inventory of all watersheds possessing marshes and swamps, so that better coordination with S.C.S. and the State Soil and Water Conservation Committee can be achieved as soon as possible.

Following this, certain WETLAND SECURITY ACTIONS should be taken:

3. *Tax relief* – No real progress can be made in wetland preservation unless the landowner is given consideration. Presently most landowners are taxed as heavily on swamps, which cannot be used for construction, as they are on high grounds which bring premium real estate prices.

The Planning Bureau of the State of Georgia (1970) indicates that increasing population and taxation are forcing many landowners to sell or develop streamside zones that ought to be kept as high quality open space or undeveloped river areas which could serve as environmental corridors of immense value to the State's overall development.

4. *Wetlands easement fund* – Besides tax relief, swampowners need to be reimbursed for the loss of certain privileges on their land. Example: If an area has important values, an easement should be purchased to prevent the owner from cutting his timber.

5. *Inland Wetland Act* – This is essentially a master plan for the wise use of the inland wetlands. It should be appropriate to each individual state. It should recognize and protect inland wetlands whose values are found to be important in education, recreation, science and to the maintenance of water quality and quantity.

The moratorium is especially needed if a state is trying to set up a system of Scenic Rivers under a State Scenic River Bill as Georgia is doing, or is attempting to comply with the Federal Scenic and Wild Rivers Act. Then, following the moratorium and with an overall plan in hand, the S.C.S. could operate without constant collision with aroused citizens. The unpleasant alternative is a stream-by-stream battle with agricultural interests. Even on a "win some, lose some" basis this is an unacceptable way to handle our dwindling resources. While, as Wood (1955) has pointed out, a great many people may have to depend for recreation, hunting, and fishing on private land, ". . . wetland preservation and development must include land acquisition to effectuate a pattern of public use areas, to preserve basic breeding stocks of wildlife, to insure public access to recreational resources created at public expense, and to compensate for losses resulting from Federally or State financed projects."

The values of the swamplands, even if substantially lower than cited herein (Appendix 7), are still high enough to warrant the elimination of channelization. Their potential value to the education process alone is sufficient to suggest the immediate purchase or lease of the Alcovy's 2,300 acres. Even at a purchase price of $300 per acre, this amounts to only $690,000 for a resource worth millions to our future.

One can ask at this point why the S.C.S. does not take part of the money that it would spend to channel the lower Alcovy and use it to purchase the entire swamp and include it in a system of wetland soil and water conservation preserves, or river parks. Odum has suggested that these soil and water conservation preserves may require certain modifications and improvements in order to maintain their value to the public and that this would require continued technical supervision by the S.C.S. Odum makes the point, however, that the maintenance cost of the swamps would be low indeed compared to the benefits. Such a system of preserves or "conserves" would add immeasurably to the nation's wetland resources and remove a sore spot of conflict between federal agencies. Such an action, although it might require some amending legislation, would enable this huge organization to move significantly ahead in the field of true environmental conservation, opening up a new era of profit for the landowners and the general public. In keeping with the steady decline of farming practice in the South and the urbanization of our culture, such a shift in emphasis to include preservation of valuable protective landscapes is truly a modern ecological approach to the conservation of America's soil and water resource base.

I admire Leopold and Marchand (1968) for their noteworthy efforts to develop means by which the aesthetic value of a stream valley or "riverscape" may be judged in an unbiased fashion. We must continue to search for better ways to evaluate our natural ecosystems. At the same time we must shoulder the responsibility of understanding the structure and function of each ecosystem through science and of making this knowledge public through education. It is not that we know so much about the Alcovy, it is that we know so little.

I apologize to the reader for the manner in which this study will end. The reason for adding the following paragraphs is that individuals and groups have been repeatedly told by the Soil Conservation Service that, while they are sympathetic, their hands are tied by Senate Document 97 (Water Resources Council, U.S. Government Printing Office). Many have read this document, including members of the legal section of The Georgia Conservancy. It contains both general and specific statements, but its intent seems clear, even to a nonlegal mind. It was written by a very responsible and special government council and is not obscure in its phraseology. As far as can be determined by close examination of the document, in the case of the Alcovy certain provisions are being followed but other provisions apparently are being ignored. Some of the latter should be cited: Sect. II B specifies that "Open space, green space, and wild areas of rivers . . . be maintained for recreational purposes: and areas of unique natural beauty . . . and scientific interest be preserved and managed primarily for the inspiration, enjoyment and education of the people." Section II C: "well being of all of the people shall be the overriding determinant . . . ." Section III A 1: "All viewpoints – national, regional, State and local shall be fully considered. . . ." Section V A 4: "A comprehensive public viewpoint shall be applied. . . . Such a viewpoint includes consideration of all effects, beneficial and adverse, short range and long range, tangible and intangible. . . . " Section V A 7: "When there are major differences among technically possible plans conceived as desirable on the basis of . . . intangible benefits and costs, in comparison with optimum plans based on tangible benefits and costs, alternative . . . projects . . . shall be planned." While selection in these cases is supposed to be made by the executive branch and Congress, how much closer can one come to spelling out the elimination of a disagreement such as channelization in the lower Alcovy? Section C 1: "All plans shall be formulated

with due regard to all pertinent benefits and costs, both tangible and intangible." Under this section tangible benefits must exceed project costs. Section D 3 discusses intangible benefits, as does Section E 9: "Benefits also include the intangible values of preserving areas of unique natural beauty and scenic, historical, and scientific interests." Section E 11: "reports should show the net economic effects of. . .changes in productivity of forest. . .or other resources."

It appears that the Water Resources Council, in preparing Senate Document 97, did conscientiously recognize the importance of weighing the multiple uses of watershed environments, with considerable emphasis on intangible benefits. Recently, as further evidence of their concern, the Council held a nationwide series of public hearings in recognition of rapidly changing values in wetland use, again including the importance of intangible values.

In the development of the White River Basin of Missouri and Arkansas, the White River Basin Coordinating Committee (1968) had this to say about the intangible values of the river: "The real value of much of this plan lies in the realm of intangible benefits . . . the development of land and water resources in this Nation is essential to produce material benefits. However, material wealth is not the sum total of our existence and the 'fiscal yardstick' cannot measure all of our needs and desires. . . . The quality of our existence includes the diversity and preservation of beauty and does not permit a *total* emphasis on the use of our resources to produce material wealth. Escape from the pressures and complexities of modern living by returning to segments of a world which nurtured the spiritual thoughts and aspirations of our ancestors is among our aesthetic and cultural determinants; they provide unique types of recreation not provided by manmade developments. . . ." The study then outlines the need for higher quality recreation with quality defined as "the degree to which the recreation experience differs from the ordinary – also the degree to which it stirs our higher senses, our feelings about the beauty of the natural world." The study then points to the growing significance of scenic and special areas because of our highly urbanized population (70 percent) and cites former Secretary of the Interior Udall, who said: "Social values must be equated with economic values. The overriding need of man for an environment that will renew the human spirit and sustain unborn generations requires some sacrifices of short-term profits."

It would seem that the intent of Senate Document 97 is not being followed in the case of the Alcovy River. Intangible benefits, such as have been summarized in this paper, continue to be ignored by the S.C.S.

The following sections appear to spell out that the values lost in the destruction of a valuable ecosystem such as the Alcovy *should be added to the gross project costs.* Section E 3 states that the *net* worth must be evaluated in terms of avoidance of adverse effects such as "loss or downgrading of recreational opportunities, increased municipal and industrial water treatment costs . . . damage to fish and wildlife, siltation . . . and degradation of the aesthetics of enjoyment of unpolluted surface waters . . . or . . . in terms of the advantageous effects . . . with respect to such items." Section E 10 indicates that net increases can be used: "The value . . . of net increases in recreational, resource preservation. . . ." Section F 1 points out that project economic costs must consider ". . . losses, liabilities, and induced adverse effects . . . whether tangible or intangible. . . ." Section F 4 notes that net adverse effects must be considered such as "all uncompensated adverse effects caused by the construction and operation of a program or project, whether tangible or intangible."

Section VIII of Supplement No. 1 (Evaluation standards for primary outdoor recreation benefits) further instructs an agency to compute the costs of providing intangible benefits as the difference between alternative plans and to compute as a cost *the benefits foregone by other phases of the project!* There is to be found, then, in both Senate Document 97 and its Supplement, grounds for considering the destruction of a natural environment as a cost.

If our legislators have been correctly interpreted, it would seem that a wise move at the present time would be to amend Public Law 566,* so that other than agricultural interests can have veto power over flood control projects involving entire watersheds. This is perhaps a way of saying that more of the people can then justly share in planning the kind of place where they, and generations to follow, may want to live.

*Georgia Congressman Ben Blackburn has proposed such an amendment.

STATEMENT ON VALUE OF WETLANDS FOR WILDLIFE

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The importance of all forms of water to wildlife is as straight forward as the importance of water to human existence.

Basic values of wetlands:

1. The biological need of wetlands to wildlife existence.
2. Economic value of wildlife to the people of the United States.
3. Ecological value of wetlands.

Biological Need for Wetlands

Glen C. Sanderson cited in Ducks Geese and Swans of North America by Frank C. Bellrose; "the principal reason for the drastic decline of ducks in the 20th century has been man's destruction of wetland habitats needed for breeding and feeding during migration periods and during winter." The same publication cites the decline from the origional 127 million acres of natural wetlands in the U.S., to 75 million acres has been due to man's drainage and pollution. Of the remaining 75 million acres, only 9 million acres is classed as high-quality wetlands, 13.5 million is of moderate value, 24 million as low value and 28 million is of negligible value! Where waterfowl are concerned the loss of more wetlands could prove disastrous. In 1945-55, 300,000 potholes totaling 1 million acres of wetlands were drained in the Prairie and Lake States. This reduction of 25% of the waterfowl breeding habitat in this area, resulted in a 66% decrease in duck production. During the same period the Dept. of Interior purchased only 250,000 acres of wetlands over the entire U.S.. This kind of loss-gain ratio will prove drastically harmful to waterfowl in the final outcome. Wetlands

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do not." This is an important statement; if wetlands are not protected for use by wildlife, many species may not adjust and we will see drastic declines of these species. When determining the value of wetlands, resident fur and game animals deserve at least equal ranking with waterfowl.

Economic Value of Wildlife to the United States

In 1970 36 million fishermen and hunters spent $7.1 billion to fish and hunt. The U. S. economy receives this money in the following ways:

1. 28.8% for auxiliary equipment
2. 15.1% for fishing and hunting equipment
3. 27.9% for bait, guides, and other related expenses
4. 23.3% for food, lodging and transportation
5. 2.6% for licenses
6. 2.3% for privilege fees

Waterfowl hunters made up 3,000,000 of the 36 million hunters and fishermen and spent $244,451,000.

The fur trade is big business. The lively demand for all kinds of fur puts into the pockets of the American trappers millions of dollars a year. This annual raw fur crop in the U. S. is worth from $100,000,000 to $125,000,000. About 15% of this, approximately $18,750,000 goes to fur farmers who produce silver foxes and minks, and a small part goes to professional trappers. The greater portion, 60 to 70% goes to farmers and farm boys. Data suggests that 25,000,000 to 30,000,000 fur animals are processed annually, and this produces an eventaul fur coat value conversion of $425,600,000. Wetland dependent muskrat and mink pelts make up 20,800,000 or 69 to 83 percent of the total fur harvest.

produce ducks-millions of ducks. This is important because ducks are important to the two million duck hunters and even more people who enjoy watching ducks.

In the Symposium on rare and endangered wildlife of the Southwestern United States, September 22-23, 1972, Alexander Sprunt IV., discussed the factors responsible for the decline of the Bald Eagle. Sprunt stated: "Bald eagles prefer and in most areas, depend on waterfront property. Operating especially against the eagles is the proliferation of second homes. Many lakes and rivers, marshes and estuaries are now ringed with summer or weekend cottages, making undisturbed nesting sites for eagles harder to find. Eagles show a great tenacity toward their nest sites and in some cases displaced pairs of eagles may simply cease to nest". This emphasizes that our national bird is dependent on wetlands. Failure to protect our remaining wetlands could spell the demise of the bald eagle.

The Fish and Wildlife Service, in its report "Wetlands of the United States," (FWS 1957) lists a total of 10 mammals, which inhabit wetlands in New Mexico alone, that are of major significance to man. Species such as muskrat, mink, otter and beaver depend on wetlands for survival. Wetlands also provide essential habitat for waterfowl, shorebirds, as well as at least 50 fur and game species in the United States, exclusive of waterfowl. For example the Fish and Wildlife Service lists 268 birds which have been observed on the Bosque del Apache National Wildlife Refuge, a wetland area in New Mexico.

J. David Ligon in the previously mentioned Symposium on rare and endangered wildlife of the southwestern United States stated: "The crux of preservation in nearly all cases comes down to habitat availability. If suitable habitat is available most species can maintain their numbers. If habitat is altered, some species possess the behavioral and genetic plasticity to adjust, whereas others

Ecology Value of Wetlands

Wetlands are valuable to the people of the U. S. for groundwater recharge. The U. S. Geologocal Survey studied wetland-groundwater relationships in North Dakota's Coteau area and found that water seeped through the bottom of the wetland basin into the groundwater seldom exceeding 0.01 foot of water per square foot of water surface per day. In some cases this was 20 to 30 percent of the water lost from the wetland in a year. Similar work in Minnesota also showed seepage from wetlands into the groundwater.

Wetlands help reduce flooding. In North Dakota there are about 1.5 million acres of wetlands. Seepage, evaporation, and other water losses reduce water levels in wetlands by at least two feet. This provides 3.0 million acre-feet of flood storage.

Wetlands form a basic station in the nutrient cycle of life. Ecologically, the estuary, its sounds, creeks, marshes, and mud and sand flats are all one production unit. They produce an excess of organic material which is fed upon by a myriad of organisms, which form food for insects which in turn feed fish, waterfowl and their young. It is said that 1 acre of salt marsh is equal in primary productivity to 5 acres of wheat.

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Swamp Drainage:

A Non-Ecological Approach to Resource Management

by Randy Perry
STAFF PHOTOS

IT is past time that all natural resource managers and planners, whether they be foresters, landscape architects, wildlife biologists, city planners, or soil conservationists, realized the demand for an ecological approach to resource management. It is no longer feasible or sensible to completely sacrifice one natural resource for the sake of better management of another. All resource managers must now be ecologically conscious, and realize that all of our natural resources must be managed in a unified manner if we are to conserve them for future generations. Understanding should not be canceled by expertness.

Natural swamps are one of North Carolina's more valuable natural resources, both economically and aesthetically. However, our natural swamps are continually being threatened by drainage, and little consideration is given to the ecological consequences involved for land, timber, wildlife, water, or even man.

Through research, it has been determined that the practice of overdrainage in the coastal plain threatens the destruction of an estimated 1½ million acres of organic soils through oxidation. According to the January 1969 issue of *Mechanix Illustrated*, Dr. Rainer Berger of the University of Colorado claims that the earth is now in one of the driest periods it has had in the last 40,000 years! He also points out that the last major dry period was some 5000 years ago, but was not as severe as the one at present. In 1968 alone, drought losses in North Carolina have been estimated by reliable sources at about $146 million. One can easily see the threat posed by drainage.

MANY of our natural swamps in the Southeastern United States have already been irreversibly destroyed by the practice of channelization and drainage, and the physical effects of these drainage projects on the watershed are more than a mere removal of water from existing croplands. Channelization can cause the water to be drained from adjacent farmlands too fast. The right of way clearing through the heart of the swamp removes much of the standing vegetation that retards the quick removal of water from the land. As a result of this clearing and increased channelization, the surface water drains from the land at such an accelerated rate, that much topsoil is also taken by erosion. The farmer's land is literally drained; drained of important soil nutrient elements, fertilizers, and other farm chemicals. The farmer receives no benefit from these substances when they float down a ditch and eventually cause stream pollution.

Farm drainage in North Dakota has actually been accused of causing floods—simply by removing surface water too quickly. By eliminating natural land basins, potholes, depressions, and flora which catch, store, and cause ground penetration, runoff waters are shed from the uplands more quickly. This increased runoff floods into the streams above their natural capacity to transport it—thus creating locally flooded conditions. Some means must be left to retard water if floods are going to be controlled. Complete swamp drainage is not the cure for flooding that is alleged.

The effects of natural swamp drainage on fish and wildlife populations are far-reaching, and in most cases irreversible. Natural swamps support populations of largemouth bass, warmouth, redbreast sunfish, yellow perch, fliers, redfin pickerel, and chain pickerel. Some of the best fishing of Eastern North Carolina is provided by these fish species in swamp areas. When a drainage project converts a natural swamp into a drainage canal, these important fish species are replaced by less desirable rough fish that can withstand the altered environment.

Stream siltation is a major national problem, especially in drained swamps. The farmer needs the valuable topsoil that erodes into drained swamps; fish and wildlife do not, and the effects of stream siltation on their existence is often lethal.

First, siltation causes a lowering of the productivity level of the swamp. Silt causes decreased light penetration in the water, thus many important "producer" aquatic plants and phytoplankton cannot survive. As the phytoplankton is eliminated, the zooplankton will also decrease in total amount of biomass present. With valuable oxygen and food producing plant life eliminated or sharply reduced, fish face serious shortages of clean water, food, and oxygen.

Stream siltation also causes a reproductive problem for fish. Once fish eggs are spawned, silt deposition often completely covers the eggs and suffocates them.

During the spring and summer months channelized streams usually contain the least amount of water. This is also the period of maximum breeding for fish. Oftentimes in drained creeks the water is too low during this period for egg deposits to be made. Many fish eggs that are spawned eventually end up desiccated or devoured by predators.

IN an effort to gain some insight into the detrimental effects of swamp drainage on the existing fishery resources, the North Carolina Wildlife Re-

sources Commission conducted a study. Fisheries Biologists Jack Bayless and William B. Smith of the North Carolina Wildlife Resources Commission reported on these effects in "The Effects of Channelization Upon the Fish Populations of Lotic Waters in Eastern North Carolina." In this study 23 channeled streams and 36 proximate natural streams were compared. The following is quoted directly from the report abstract:

> "These comparisons indicated that reductions in the magnitude of 90 percent occurred both in weight of game fish per acre, and in number of game fish exceeding six inches total length per acre, following channelization.
>
> The data further revealed that no significant return towards the natural stream populations occurred within a 40-year period following channelization."

Fish have very little choice in a drainage canal. Either they remain and reproduce at a lower level, providing physiological conditions permit, or migrate in search of better aquatic habitat. The fish that can remain face many hardships in their search for food, clean water, and a spawning and rearing grounds. Predation, starvation, and disease are usually more prevalent within such a population living under such physiological and ecological stresses. Population reduction is the end result.

Fish species that cannot physiologically withstand heavy stream siltation or low water levels must migrate or perish. The fish that do leave in search of better habitat suffer great losses from starvation, predation, and competition from other fish species. The complete fishery resources will be severely altered in an apparently irreversible manner.

Wildlife populations are faced with a similar problem. Ducks cannot effectively reproduce and rear their young on open canals of flowing dirty water. The open habitat allows increased predation from hawks, dogs, foxes, turtles, and man. Ducks must move out. But how much is a duck worth? It is impossible to accurately answer such a question. Wildlife has a value that cannot be measured in dollars and cents.

The wood duck is found in great numbers in many natural swamps of North Carolina. This duck is North Carolina's own in a sense. It is one of the most hunted duck species in North Carolina. Also, in North Carolina, more woodies are killed than any other species. Other ducks using swamps in significant numbers include blacks and mallards.

NATURAL swamps offer seclusion and isolation unlike any other form of habitat. Deer and bear make extensive use of bottomlands and swamps as escape routes from dogs and man. Mast production in natural swamps helps maintain populations of squirrels, turkeys, and many bird species other than waterfowl. Raccoons, rabbits, otter, and mink also flourish in natural swamps and bottomlands. The carrying capacity of a swamp in its natural state is extremely high, but is sharply curtailed by drainage.

What happens to existing wildlife when drainage occurs? Since prime habitat for many species is destroyed, they must abandon their home territories or cease to exist. Man often invades these drained areas.

When wildlife populations are forced to abandon an area in an effort to search for better habitat, losses occur. Populations moving into new areas face increased competition from species already present. Increased predation may occur since the abandoning individuals are not totally familiar with their "new" surroundings. Starvation and disease may also increase. As a result of swampland destruction, the total wildlife resource is seriously jeopardized.

Little does man realize that he is also an animal species. Sure man is more advanced than animal species such as ducks and deer, but how much more advanced? Man is the only animal that has ever waged an all-out war on his own species. Man requires the same 20 amino acids for protein synthesis as wildlife species. Man is like other wildlife species in that he requires food, water, air, and shelter as the basic necessities of life. Swamp drainage virtually eliminates most of these four essentials, not only for wildlife, but also for man. Sure wildlife is affected more severely and more quickly than man, but man will eventually be affected—probably to a greater degree than wildlife.

With water pollution a major problem in the United States, clean water becomes an even more valuable resource. Swamp drainage lowers the water table drastically. Many farmers complain about having to deepen their wells. During drought periods farmlands suffer tremendous water shortages, but new drainage projects are continually being planned and put into operation. In many areas creeks are being used as a water source for municipalities. More of these creeks will be needed for use as a water source in the future—yet drainage projects continue to multiply and flourish.

Many health officials promote swamp drainage projects in the name of mosquito control. Swamp drainage projects could only cause a potential increase in existing mosquito populations. By draining bottomlands, extremely small potholes a few inches deep will almost always remain in some locations. These small areas are not large enough for significant duck usage, but exactly suit the mosquitoes' needs for egg laying and larval development of their young. Mosquito populations thrive in such stagnant pools in supposedly drained areas. Increased mosquito populations mean more localized DDT spraying, thus adding to the tremendous problem of air and water pollution.

The *Aedes aegypti* mosquito, the one that carries yellow fever, prefers to breed in old water-containing tires and empty cans near wellings, and does

not breed in significant numbers in natural swamps. In most cases swamp drainage projects accelerate mosquito breeding rather than control it.

NATURAL swamps contain extremely valuable tupelo and cypress timber stands. Hardwood bottomlands, characterized by surface water only in the winter, contain other important tree species such as ashes, blackgum, sweetgum, and several species of oak. Besides the sanctuary provided in these areas, wildlife food production is also high. Berries, gum mast, and acorns are produced in enormous quantities in natural, unaltered swamps and bottomlands.

The timber value of these tree species is tremendous. Two-thirds of all hardwoods produced in the United States come from the swamps and bottomlands of the Southeastern states.

The rot-resistant qualities of cypress wood are well known. Cypress timber is used extensively where exposure to weather is an important factor.

Tupelo root wood is often used as floats on fishing nets. Veneer of tupelo gum is often stained and used as paneling or furniture.

Hardwood veneer is a main source of income in Eastern North Carolina. High quality hardwood products are in great demand, and natural swamps and bottomlands play the important role of providing the necessary conditions for proper growth and development of these valuable trees.

North Carolina is a national leader in the production of hardwood plywood, much of which is produced from tupelo gum. This state is also a national leader in wood furniture production. Why import these important tree species when they can be grown right here in the swamps and bottomlands of North Carolina?

Tupelo and cypress require surface water for long periods each year to maintain maximum growth. Both seed dispersal and germination depend upon a watery atmosphere. Tupelo and cypress improve the quality of water in swamps by slowing runoff and causing silt deposition.

In Agricultural Handbook Number 181, November 1960, *Management and Inventory of Southern Hardwoods*, U.S. Department of Agriculture, the following statement is made concerning tupelo-swamp blackgum stands: "Artificial drainage will decelerate growth or kill older trees if it permanently lowers the water table. Prolonged droughts cause mortality and induce insect attack."

No longer is it considered economically feasible to convert hardwood bottomlands and swamps into pine stands. Softwood production is now more approximately in line with the demand. Under swamp conditions, blackgum, tupelo, and cypress can develop tremendous volumes of timber. These species can actually out produce southern pines. Good hardwood wetlands containing ample water can produce growth rates sometimes exceeding 1000 board feet per acre per year. Wildlife populations can most always be expected to decline whenever pines replace a good hardwood stand.

WHAT does the future hold for our natural swamps in North Carolina? From the North Carolina Soil and Water Conservation Needs Inventory of 1962 the future looks dim, unless corrective actions are enforced upon swamp drainage. Of the total 211 watersheds in North Carolina, 208 of them were found in need of "improvement." According to the "Watershed Box Score" made available by the North Carolina Soil and Water Conservation Committee, in 1968 North Carolina had submitted 83 applications for watershed improvement. Also, 115 watersheds were in the "priority for planning," "approved for operations," or "under construction" category. Nine watersheds had already undergone works of "improvement." In 1968, North Carolina ranked fourth in the nation in the number of watersheds approved for operations.

Recommendations to ameliorate the threat swamp drainage poses to our natural resources might include the following: (1) Prevention of complete swamp drainage when only better field drainage is needed. (2) Stronger mitigation measures for destroyed fish and wildlife populations. (3) More accurate education of farmers and the general public as to the detrimental and long term effects of swamp drainage projects. (4) Greater consideration given to the professional opinions of foresters and wildlife biologists. (5) The establishment of water banks. (6) More research be conducted on the effects of swamp drainage on all natural resources.

Steps must be taken to ensure that our swamps will be managed in an ecological manner. No longer can the soil conservationist consider only soil, the wildlife biologist consider only wildlife, and the forester consider only trees. All resource managers must unify their knowledge and consider all resources in a plan that will provide for future generations. Short-term, quick dollar projects must be viewed with caution.

Inland Wetlands of the United States

Evaluated as Potential Registered Natural Landmarks

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Chapter 2

The Value of Inland Wetlands

The wetlands of the United States represent an extremely limited resource, comprising about 3.5% of the entire country, excluding Alaska. Although among the most productive ecosystems in the world, they have been subjected to widespread destruction and abuse. As a result of dredging, draining, filling, and pollution they have been reduced to 70 million acres, which is slightly more than half of the original estimated 127 million acres. These figures include all wetland types, inland and coastal.

Although the ecological role of the coastal wetlands in supporting the shellfish and finfish productivity of our estuarine waters is well documented, recent studies have also provided data on the significant ecological role of our fresh-water wetlands. Two current studies are of special relevance. Wharton's analysis of the ecological values of southern river swamps keynotes four major values: water quality, water quantity, productivity, and potential educational use (Wharton 1970). McCormick (1970) and Grant and Patrick (1970) have recently completed a study of the polluted Tinicum wetlands in the Philadelphia region which documents their high productivity and role in pollution filtration.

Hydrologic Role

Wetlands are of major importance in the nation's hydrologic regime. Because of their water-holding capacity, they act as storage basins,

lowering flood crests, minimizing erosion, and serving to reduce the destructiveness of severe floods. In densely populated areas this is especially important, since urbanization intensifies the rate of runoff. Buildings, concrete, and asphalt waterproof the land surface and tend to concentrate large volumes of precipitation. Cities lack adequate soak-in areas and the runoff is usually rapid and in excessive amounts. Wetlands, and especially flood plains, act as catchment basins and tend to slow the speed of flood waters, thus minimizing flood damage. In 1955, when severe floods hit eastern Pennsylvania, many bridges were washed out along the stream courses. However, two bridges of the type destroyed elsewhere were still intact below the Cranberry Bog, a Natural Area preserved by The Nature Conservancy and recommended for landmark status. That swamps provide natural storage for flood waters has been demonstrated on the Alcovy River in Georgia (Wharton 1970), also recommended for landmark status.

It has been estimated that a 6-inch rise in water over a 10-acre wetland places more than 1.5 million gallons of water in storage with no harm to the surrounding biota (Niering 1966). By slowing the velocity of flow, wetlands minimize erosive processes and simultaneously act as siltation basins. Wetland filling is often a combination of organic, plant-derived, and inorganic, stream-carried sediments.

Wetlands have been shown to play a significant role in ground-water recharge. In the Ipswich River basin of Massachusetts the USDI (1962) found that marshes and swamps functioned not only as water storage and discharge areas but also occasionally as ground-water recharge areas. In North Carolina along the Yellow River, Kilpatrick (1964) found an alluvial aquifer below the flood plain that was hydraulically contiguous with the surface waters of the stream.

Productivity

Fresh-water marshes and swamps are among the most productive biological systems. Eugene Odum (1959) estimates the gross productivity of southern river swamps such as the Alcovy and Altamaha bottomlands at 20,000 kcal/m^2 per year, which compares favorably with a field of sugarcane (27,010),[1] the most productive, intensively managed agro-ecosystem. Furthermore, wetland productivity is estimated to be double the 20,000 figure on the most favorable sites. Hardwood production reaches about 12 metric tons/ha (2.4 acres) per year. The estimated timber productivity on the 2300-acre Alcovy River system is estimated to be $1,578,720 per year ($686 per acre per year) based on a 100-year period and at present market value. Fish productivity averages 75 pounds per acre but may reach 1300 pounds per acre in the backwaters and sloughs, according to the Georgia Game and Fish Commission. Wharton (1970) estimates the total productivity value of the Alcovy at $546,940 per year or $3,648,720 based on a 100-year

[1]Day net production plus night respiration.

period. These monetary estimates do not include the value of primary production in terms of food for wildlife or in terms of the animals, including furbearers, that it supports.

Wetlands have long been associated with the production of waterfowl (Alexander et al. 1953; Linduska 1964). They are recognized as the Nation's "duck factories." The pothole country, for example, which represents only 10% of our wetlands, produces over 50% of our ducks. Every year 300,000 ducklings fly off the western marshes along the Pacific Flyway. The 14 southern states add another 700,000, and the eastern coastal marshes add 200,000 more during the best years. Some wetlands are more important as the actual breeding areas. Others are essential as wintering grounds and as feeding and resting areas scattered along the major flyways (Errington 1966; Niering 1966).

Studies of the primary producers in the Tinicum Marshes by McCormick (1970) provide insight into higher plant productivity. Among the eight vegetation types represented, common reed grass, wild rice, cattail, and mixed aquatic types were most important. They produced a standing crop of 4.2, 6.9, 3.9, and 4.0 tons/acre, respectively.

In general, wetlands exhibit a distinctive flora and fauna adapted to hydric conditions or to periodic flooding. Some of the plant species are of special interest for their unique features. These include the insectivorous plants, orchids, and ericads of the bogs and species typical of the vernal pools that change morphologically with gradual desiccation of the site.

Oxygen Production and Nutrient Recycling

Grant and Patrick (1970) found that the 512 acres of wetland in the Tinicum Marshes produce a net increase of 20 tons of oxygen per day. This is the product of photosynthesis.

Modern man has drastically modified the nitrogen cycle. The annual natural turnover of nitrogen compounds in the U.S. has been calculated to be about 7 or 8 million tons (Commoner 1970). Currently our agricultural fertilizers add another estimated 7 million tons, and nitrogen compounds produced as by-products from our power plants and automobiles, another 2 to 3 million tons. More than doubling the nitrogen input into the biosphere has resulted in a serious deterioration of enviornmental quality in various parts of the country. Denitrifying bacteria have the ability to take the deleterious nitrogen oxides that are accumulating and convert them back into atmospheric nitrogen of which most of the atmosphere is composed. Most wetlands support vast numbers of these micro-organisms and thus serve to reduce the load of dissolved nitrogen washed into them.

Another role of aquatic ecosystems is the recycling of organic sulfur-containing compounds by action of sulfate-reducing bacteria. As

Deevey (1970) puts it:

> What follows, if R.NH_2.SH is to remain a renewable resource, is that water, mud, air, and land are closely linked by oxidation-reduction cycles in which reduction is performed entirely by organisms.

Pollution Filtration

One of the most significant roles of wetlands is their ability to remove pollutants. Preliminary studies in the Tinicum Marshes indicate that this area receives sewage from three treatment plants and that a significant reduction in absolute amounts of pollution occurs by the time the water has passed through the 512 acres of marsh. Grant and Patrick (1970) succinctly summarize this vital role as follows:

> It is significant that reductions in BOD, P-PO_4, N-NH_3, and N-NO_3, did occur in the excursion of the river water over the marshland in the time interval of 2 to 5 hours. This reduction occurred in 57% of the BOD measurements, 57% of the P-PO_4 analyses, 66% of the N-NH_3, and 63% of the N-NO_3 analyses. Oxygen increases occurred in 73% of the analyses. It is difficult to determine from the information at hand why the decreases in pollution load were not always consistent but are probably due to irregular pattern of flow and the variability of pollution load. If we take the approximate average value for each of these characteristics this would mean an approximate reduction of P-PO_4 of 190 mg/ft^3 of water per day; BOD of 310 mg/ft^3 per day; N-NH_3 of 176 mg/ft^3 per day; N-NO_3 of 3.2 mg/ft^3 per day and an increase of oxygen of 412 mg/ft^3 per day. Since the wet area of the marsh is about 512 acres, this would amount to a reduction per day of approximately 7.7 tons of BOD, 4.9 tons P-PO_4, 4.3 tons N-NH_3, 138 lb. N-NO_3, and an increase of 20 tons of oxygen. From these preliminary results it is evident that the marshlands play an important role in reducing the nutrient load in water and in increasing the oxygen content.

In Georgia, water quality was studied along the Flint and Alcovy rivers to assess the value of river bottomland swamps in pollution reduction. In the Flint River system, the Georgia Water Quality Control Board reports a high degree of recovery by a very organically polluted stream within a distance of 6 miles, where there were extensive swamps. It was also observed that the degree of recovery was directly correlated with the presence of the adjacent swamps. Along Mountain Creek, a tributary of the Alcovy River, the Federal Water Pollution Control Administration found extreme pollution due to human sewage and chicken offal (Wharton 1970). However, after passing through 2.75 miles of swamp forest along the Alcovy, the river water was designated as clean; and water quality was excellent after traversing an additional 7 miles of swamp. Data also suggest that coliform counts, dissolved oxygen, and biological oxygen determination (BOD) all returned to more favorable levels downstream from the swampy areas. In another study of oil wastes on the Gothard's Branch in Douglas County, Georgia, Turner and Ahearn (1970:18) found that the largest amount of the degradation of the pollutant occurs along the swampy portion of the stream.

The role of swamps in sediment removal has also been documented. Wharton (1970) estimates that the value of the Alcovy River Swamp as a sediment accretor exceeds $3000 annually. This function would be destroyed by channelization, a potential threat to such wetlands. It

has been found that water velocity is doubled by channelization, while the silt load is tripled.

In conclusion, Wharton (1970) estimates the value of the 2300-acre Alcovy River Swamp ecosystem from the standpoint of water quality at $1,000,000 annually.

Education and Recreation

Wetlands are outdoor educational exhibits and scientific laboratories. They serve as the resource base for scientific research and also as museums for teaching the dynamics and ecological role of these ecosystems. At the Connecticut Arboretum in New London, the permanently preserved wetlands have been studied by Connecticut College students. A red maple swamp, actually a bog, with its underlying 20 ft of peat, presented a challenging problem to an undergraduate student as she unravelled the 13,000 years of post-glacial history revealed by the pollen preserved in the peat. At the Thames Science Center, closely affiliated with the Connecticut Arboretum, thousands of school children annually are given first-hand field experience and are being taught the value of wetlands. The Arboretum Guided Tour (Emery 1967), used by the teachers, makes this point about the wetland along the route: "The swamp below this dam is roughly an acre in size. If flooded to a depth of one foot it would hold 330,000 gallons of water. Thus whenever a swamp is filled or drained, another large quantity of water is lost from the underground water supply and made to run off more quickly to aggravate flooding problems downstream." In these ecological settings one can also emphasize the basic ecological principles operative in natural ecosystems—energy flow, recycling, diversity, and limited carrying capacity. These concepts can also be directly related to man and the environmental problems created by failing to recognize their applicability in human ecology.

Wetlands also provide many recreational outlets, such as fishing, hunting, bird-watching, and hiking. Twenty million Americans go fishing, two million hunt waterfowl. Thousands hunt the wetlands with binoculars and cameras, where an unparalleled diversity of waterfowl and spectacular marsh birds gives pleasure and inspiration. On Staten Island a unique fenway system has been proposed for incorporating the wetlands as part of the open-space pattern. This represents a sound ecological use of resources and the recreation potential is very great. Such a mosaic of open space should be incorporated as an essential part of any community development plan, as it serves an important social function and greatly enhances the quality of the environment (Hoffman 1963; Thomson 1970; USDI 1962).

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IN DEFENSE OF SMALL STREAMS

We are scientists experienced with the study of small streams, and citizens interested in assuring that streams obtain the legal protection that we think they deserve.

Why are small streams important? Our answer is based on both scientific and social factors. Our research (and that of many other investigators) has shown that relatively undisturbed small streams and their watersheds: provide the first important step in the retention of potential floodwater from storms, release water during dry periods, prevent soil erosion, provide important spawning and nursery ground for fish that inhabit larger downstream rivers, provide important nutrient-retention services, maintain water quality in downstream regions, lessen eutrophication in lakes and reservoirs, and provide essential habitat for many important and interesting species of fish and invertebrates. These organisms provide the basis for important scientific inquiry, aesthetic satisfaction and recreation.

One particularly important aspect of small streams is their role in fish production. As a general rule river fish in all parts of the United States swim upstream, often to headwaters and small tributaries, for spawning. This appears particularly true for the larger species of fish. After a period of about a year the young fish swim back downstream. Thus the destruction of small streams not only destroys the potential for fishing of that small stream but also part of the potential of the main-stem river.

One way to view the above contributions of small streams and their watersheds to society is to consider them as natural "public service functions." That is to say these processes contribute significantly to society's welfare through such processes as fish production, flood protection, erosion control and the maintenance of water quality. The managers of public water supply watersheds and reservoirs recognize these facts and wisely leave watersheds in their natural state. An additional benefit of the "public service functions" from small watersheds is that the services are provided with no requirement for capital expenditures or even, for the most part, operating expenses. This also may be viewed from the perspective that these natural services do not require fossil fuel energy to provide basic services to society. A considerable body of research in different parts of the United States has shown that if these "public services of nature" are destroyed the provision of the same public

benefits (i.e. flood protection, water quality control, recreation, etc.) by man-derived means can be very expensive both in terms of dollars and energy.

Our research has also shown that small stream environments are easily disrupted by dredging, filling, forest clearing and other major disruptions to the watershed. Such disruption may seriously alter the ability of streams to serve as fish spawning grounds and to maintain water quality. However, we also have found that small streams are resilient to small changes and can, for example, assimilate small quantities of sewage without significant environmental deterioration. Thus it is important to study each potential environmental disruption of small streams to determine whether or not the proposed disruption will seriously interfere with the biological health and usefulness to man of these ecosystems. We think that a process whereby potential alterations are first reviewed by a group of experienced and hopefully unbiased scientists, engineers and/or representatives of the public would greatly assist in maintaining the water quality and fish productivity of our nation's streams and rivers.

Sincerely,

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Visiting Assistant Professor of Ecology

Clifford O. Berg, Ph.D.
Professor of Entomology

Edward B. Brothers, Ph.D.
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Cornell University
Ithaca, New York

[From Conservation Volunteer, Minnesota DNR, September–October 1972]

Why We Worry About Wetlands

(By John Skrypek)

For over two decades, the Department has waged a battle to preserve Minnesota's fast-vanishing wetlands. But is the swamp, the marsh, the shallow lake "valuable" only in terms of wildlife? John Skrypek answers that question with an emphatic "No!" He points out that man's increasing knowledge of wetlands ecology has revealed the enormously significant values these areas provide for our total environment. Mr. Skrypek is environmental control coordinator for the DNR's Division of Game and Fish.

Traditionally, programs for preservation of wetlands have emphasized their importance as wildlife habitat. Anyone can see that they are the home of the mallard, teal, heron, wood duck, muskrat and myriads of other creeping, crawling, swimming and flying creatures that prefer the wet, private world of a marsh. When connected to lakes and streams with permanent fish populations, wetlands may also be important fish spawning areas, especially for northern pike.

Our Department's Division of Game and Fish has long recognized these values. We have had an active wetland acquisition program for wildlife habitat since 1951. Since that time, over 200,000 acres of wetlands, in 82 Minnesota counties, have been purchased. In addition, many marshes adjacent to fish lakes have been acquired to be managed as northern pike spawning areas. We have also acquired shallow lakes, bogs, woodland pools, potholes—all of which are classed as wetlands.

Obviously, the fish and wildlife uses of wetlands are important. But what about other values? Have we received any bonus values from preserving wetlands? *The answer is "Yes!"*

It is becoming more obvious each year that our money has been even better spent than we originally thought. In urban areas, wetlands are providing outdoor classrooms where students can study ecology, living animals, and organisms. Wetlands provide open space that is a pleasant relief from the monotony of confining urban housing and apartments. In both rural and urban areas, wetlands retard the runoff of water from melting snow and rain. In this way, these natural "sponges" reduce flood damage to downstream areas. Wetlands also have a beneficial recharging effect on underground, water-bearing formations.

In addition to these values a new and exciting role of wetlands is emerging—that of *enhancing and protecting water quality*. Actually, this role isn't new. It has always been just under our noses. We had an inkling it was there. But only recently has scientific documentation for this role started to emerge.

How do wetlands protect water quality? At first glance this concept seems contradictory. A commonly heard complaint from those who are not attuned to the fish and wildlife values of marshes is that they are "polluted"—smelly, all full of silt and ugly green plants. To this complaint the chemist and biologist no longer stammer for excuses. They reply, "Good! That's just the way we want it!"

To understand how wetlands protect water quality, we must stop looking at them as isolated, individual units. We must cast aside the "tunnel vision" that has made it possible to drain and fill thousands of individual marshes in our state and nation. We must recognize that each wetland is part of a larger hydrologic system—and all are surface expressions of the hydrology, geology, climate and man's uses of a given area.

Obviously, the primary ingredient for a wetland is water. Water enters a wetland from several sources including direct rainfall, surface runoff from rainfall and snowmelt, inflowing streams, rivers and ground water. Water is almost a universal solvent. It carries dissolved minerals with it and, when moving, has the ability to carry materials in suspension.

When water enters a wetland, therefore, it brings along many things. Among these are silt, organic matter from decaying plants and animals and many different dissolved chemical compounds from the soil and rocks of the surrounding watershed. Man gets into the act by inadvertently, or sometimes intentionally, dumping unwanted materials and pollutants into the wetland. Even the rain that falls on the wetland's surface brings along suspended and dissolved materials.

A wetland protects the water quality of downstream areas by trapping, retarding, regulating and transforming the materials that enter it. It *slows* water flow. It retards the rushing of water off the land. It enables "settling" out. Usually the quality of water leaving a wetland is not the same as when it entered. Thus, the wetland is inherent in nature's intricate web of life—and water quality.

What mechanisms are at work to produce the changes in the quality of water leaving a wetland? When water enters a wetland, its rate of flow diminishes due to ponding, and the resistance of abundant growths of aquatic plants. As the velocity of water is slowed down, its ability to carry silt and other particles in suspension is decreased. The particles drop out and settle to the bottom—where they may be anchored and stabilized by the root systems of aquatic plants. Deposition of silt is therefore prevented in downstream rivers and lakes where it may interfere with swimming, boating, other activities, and fisheries and wildlife values.

What about material dissolved in the water that enters a wetland? There are many dissolved materials. But the ones of primary concern at this time are nitrogen and phosphorus compounds which can fertilize lakes excessively and cause unwanted growths of algae and rooted plants. Some of the dissolved phosphorus entering a wetland becomes physically bound to silt particles and settles to the bottom, where it is essentially "locked up" as long as the silt stays in place. Portions of the phosphorus and nitrogen compounds are incorporated into submerged and emergent plant growth where they are tied up for the growing season.

In general, the growing season for marsh plants coincides with the growing season for nuisance algae in lakes. In effect then, a wetland regulates nutrients to man's benefit by keeping them "trapped," when they could be doing harm in downstream areas. During periods of the year when abundant growths of plants are absent, this storage capacity is diminished. But this is at a time when nuisance algae blooms do not occur in Minnesota.

Still another important mechanism for water quality improvement is provided by certain bacteria living in the marsh bottom. Much of the nitrogen entering a wetland comes in as nitrate compounds, a form easily used by plants. The bacteria have the ability to reduce nitrates to gaseous nitrogen which is released to the atmosphere.

The value of wetlands in protecting water quality has been demonstrated, in detail, in recently completed studies of Lake Minnetonka and its watershed. Results of this work are summarized in a report entitled, A Program for Preserving the Quality of Lake Minnetonka, prepared by the University of Minnesota Limnological Research Center, Barr Engineering Company, Harza Engineering Company, and Hickok and Associates.

The report found that phosphorus was the critical element causing excessive production of algae in Lake Minnetonka. A detailed phosphorus budget for the lake was determined for the period June 19€9 to May 1970. Approximately 77,000 pounds of phosphorus were released within the Lake Minnetonka watershed during this period—but only an estimated 50,300 pounds reached the lake. Much of this phosphorous was retained in wetlands outside the main lake basin.

The beneficial effects of this storage are obvious. The report recommends that wetlands in the Lake Minnetonka watershed be preserved in their natural state. It further recommends that construction of storm sewers be minimized, and that runoff water be allowed to follow natural drainage patterns. Thus, wetlands can provide their valuable cleansing and removal action—*before the water enters the lake.*

The value of wetlands in protecting recreational lakes is, unfortunately, also being demonstrated in a negative way on certain Minnesota lakes—especially those near the Twin Cities and in heavily farmed areas. A common complaint reaching the Division of Game and Fish about lakes in these areas is that they are becoming very turbid or, in some cases, excessively weedy. Sandy beaches are becoming covered with silt.

An investigation commonly reveals that silt deposits build up near the mouths of incoming storm sewers and ditches. Excessive growths of weeds and filamentous algae are also found, starting in the vicinity of sewer inlets. After a rain, chemical analysis of inflowing water often reveals exceptionally high values for nitrogen and phosphorus compounds.

In checking upstream areas, it is often obvious what has happened. Wetlands which formerly served as natural, *living filters* have been drained, filled and covered over with farm fields, parking lots, apartments, homes, and businesses. Thus, the natural drainage pattern has been changed. Runoff water is now carried in storm sewers and drainage ditches—instead of through streams and marshes. Again, man has disrupted his environment. We must pay the penalty of increased flood potential and deteriorating quality.

The proper course of action is clear. Land should be managed so that silt and nutrient losses to watersheds are minimized. Wetlands must be preserved as though they have the same value as the larger and more permanent lakes in the lower part of the watershed.

We can then save some of our vanishing wildlife habitat, keep more open space, and help protect downstream areas from flooding and water quality deterioration. Wetlands are an important part of our ecological pattern of lands and waters—a natural pattern that must be considered as a whole—if we are to keep Minnesota waters in high quality condition. And is not the quality of our waters basic to the quality of our lives?

[From Wisconsin Conservation Bulletin, July–August 1975]

THE NUTRIENT TRAP

More than one hundred and fifty million dollars will be spent in the next year to improve sewage treatment systems in Wisconsin. The aim is to reduce pollutants entering our waters from these nutrient-rich "point" sources.

But upgrading these facilities will do nothing about the majority of pollutants which enter the lake basins uncontrolled from all sides. These so-called "nonpoint" pollutants include fertilizer and soil runoff from farmland, urban streets and lawns.

Farm fertilizers, as well as leaves and other city debris, contain nitrogen and phosphorus which stimulate aquatic plant growth just as they spur the growth of agricultural crops. The algae blooms now occurring on southern Wisconsin's lakes are chiefly caused by this nutrient flow.

Currently, engineers are attempting to design structures that will hold back some of these fertilizers from the lake bed. Efforts are also being made to upgrade soil conservation practices and to make the liquefication of manure a more feasible practice. Liquefication allows manure to be stored over the winter until it can be applied to fields during "safe", dry periods. These projects are expensive, though, and would require changes in long established farming practices.

While the problem awaits solution, nature already provides a simple and effective means of preventing some of these nutrients from entering the waterways by trapping them in the network of marshes that surround lakes and rivers.

These lowlands naturally trap nutrients, making them unavailable to the weeds and algae that thrive on them. The wetland so ls easily retain phosphorus and marsh plants take up and incorporate large amounts of nitrogen and phosphorus into their growing tissue.

Wetlands, from the peat bogs of the northern forests to the cattail marshes of the dairy belt, provide other benefits as well. They provide cover and nesting sites for waterfowl and other wildlife. They hold floodwater and silt. They serve as needed open spaces for recreation and study.

University of Wisconsin botanist Orie Loucks says that one acre of wetland is worth fifty to sixty thousand dollars, based on the replacement cost of all the functions they perform. But traditionally, wetlands have not been so highly valued, only rarely bringing one hundred dollars per acre.

Because of this low price, marshlands have been prime targets for draining, filling or other uses. The past century has witnessed the gradual disappearance of about half of Wisconsin's wetlands, and with them an important natural filter system for our lakes: To help reverse this pattern, the Wisconsin legislature is considering a Wetlands Protection Bill.

The bill would require cities, villages, and counties to adopt wetland protection ordinances. Permits would be required for certain activities in marsh areas, including draining and filling. According to the bill, permits would be granted only where no "significant impairment of any of the natural functions performed by the wetland" would occur. Although some types of wetlands such as seasonally flooded meadows would be exempt from the legislation, the protection would affect more than one million acres of remaining wetland. Exceptions to the permit requirement would be given for existing uses and for certain proposed uses, such as cranberry growing and muck farming.

Preserving the wetlands that are still left is an inexpensive and natural way to prevent further growth of weeds and algae in our lakes. And it is one method that requires neither expensive treatment facilities nor the energy to operate them.

[From Federal Supplement 392]

NATURAL RESOURCES DEFENSE COUNCIL, INC., AND NATIONAL WILDLIFE FEDERATION, PLAINTIFFS,

v.

HOWARD H. CALLAWAY, SECRETARY OF THE ARMY, ET AL., DEFENDANTS

Civ. A. No. 74–1242

United States District Court, District of Columbia

March 27, 1975

Conservation groups brought action against Secretary of the Army, Army Corps of Engineers, and Environmental Protection Agency. On plaintiffs' motion for partial summary judgment and defendants' motion to dismiss, the District Court, Aubrey E. Robinson, Jr., J., held that Congress, by defining the term navigable waters to mean 'the waters of the United States, including the territorial seas," asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the commerce clause for purposes of the Water Act; and that Secretary of the Army and Chief of the Army Corps of Engineers acted unlawfully and in derogation of their responsibilities under the Water Act by adopting a different definition.

Plaintiffs' motion granted and defendants' motion denied.

1. Navigable Waters ⇐35

Congress, by defining the term "navigable waters" for purpose of the Federal Water Pollution Control Act Amendments of 1972 to mean "the waters of the United States, including the territorial seas" asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the commerce clause; as used in the Water Act, the term is not limited to the traditional tests of navigability. Federal Water Pollution Control Act Amendments of 1972, §§ 101 et seq., 502(7), 33 U.S.C.A. §§ 1251 et seq., 1362(7); U.S.C.A.Const. art. 1, § 8 cl. 3.

2. Navigable Waters ⇐35

Secretary of the Army and Chief of the Army Corps of Engineers are without authority to amend or change statutory definition of navigable waters as used in the Water Act and they acted unlawfully and in derogation of their responsibilities under the Water Act by adopting regulation which defined navigable waters as those which had been, are, or may be, used for interstate or foreign commerce. Federal Water Pollution Control Act Amendments of 1972, §§ 101 et seq., 404, 502(7), 33 U.S.C.A. §§ 1251 et seq., 1344, 1362(7).

Marianne K. Smythe, Dennis M. Flannery, William T. Lake, Wilmer, Cutler & Pickering, Washington, D.C., for plaintiffs.

John E. Varnum, Pollution Control Section, Dept. of Justice, Brian O'Neill, Gen. Counsel's Office, Army Corps of Engineers, Washington, D.C., David Gluckman, Sp. Asst. Atty. Gen., Florida Dept. of Pollution Control, Robert L. Shevin, Atty. Gen. for the State of Florida, for defendants.

DECLARATION AND ORDER OF FINAL JUDGMENT

Aubrey E. Robinson, Jr., District Judge.

Plaintiffs have moved for an order pursuant to Rule 56 of the Federal Rules of Civil Procedure granting partial summary judgment in favor of Plaintiffs on Count I of the Complaint; and Defendants' having moved to dismiss the complaint on all counts; and the Court having heard argument of counsel, the Motion for Partial Summary Judgment on Count I of the Complaint is granted; and it is DECLARED that:

[1] 1. Congress by defining the term "navigable waters" in Section 502(7) of the Federal Water Pollution Control Act Amendments of 1972, 86 Stat. 816, 33 U.S.C. § 1251 et seq. (the "Water Act") to mean "the waters of the United States, including the territorial seas," asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution. Accordingly, as used in the Water Act, the term is not limited to the traditional tests of navigability.

[2] 2. Defendants Howard H. Callaway, Secretary of the Army, and Lt. Gen. William C. Gribble, Chief, Army Corps of Engineers, are without authority to amend or change the statutory definition of navigable waters and they are hereby declared to have acted unlawfully and in derogation of their responsibilities under Section 404 of the Water Act by the adoption of the definition of navigability described at 33 C.F.R. § 209.210(d)(1), 39 Federal Register 12119 (April 3, 1974) and 33 C.F.R. 209.260; and it is ordered that Defendants Callaway and Gribble:

1. Revoke and rescind so much of 39 Federal Register 12115, et seq. (April 3, 1974) as limits the permit jurisdiction of the Corps of Engineers by definition or otherwise to other than "the waters of the United States."

2. Publish within fifteen (15) days of the date of this Order proposed regulations clearly recognizing the full regulatory mandate of the Water Act.

3. Publish within thirty (30) days of the date of this Order final regulations clearly recognizing the full regulatory mandate of the Water Act; and it is

Further ordered that the Clerk of this Court shall enter a final Judgment upon this Order Granting Plaintiffs' Motion for Partial Summary Judgment, the Court expressly having determined that there is no just reason for delay in the entry of final Judgment on this Order; and it is

Further ordered that Defendants' Motion to Dismiss be and hereby is denied.

SELECTED OTHER COURT CASES

The U.S. District Court for the District of Columbia was not the only -- or even the first -- federal court to broadly construe the Corps of Engineers' jurisdiction under Section 404 of the Water Act.

Thus, in United States v. Holland, 373 F.Supp. 665 (M.D.Fla. 1974), the court held that the classical definition of navigability was not part of the Water Act nor need it be:

> "the mean high water line is no limit to federal authority under the [Water Act]. While the line remains a valid demarcation for other purposes, it has no rational connection to the aquatic ecosystems which the [Water Act] is intended to protect. Congress has wisely determined that federal authority over water pollution properly rests on the Commerce Clause and not on past interpretations of an act designed to protect navigation. And the Commerce Clause gives Congress amply authority to reach activities above the mean high water line that pollute the waters of the United States." Id. at 676.

In United States v. Ashland Oil and Transportation Co., 364 F.Supp. 349 (W.D.Ky. 1973), aff'd, 7 ERC 1114 (6th Cir. 1974), the court rejected the argument that the Water Act "applies only to the classical 'navigable waters of the United States'," finding that "one need go no further than the definitions provided in the Act" in order to discover that the classical concept of "navigable" was not an element of the definition found in the Water Act.

> "Congress defined 'navigable waters' as 'waters of the United States.' [33 U.S.C. § 1362(7)]. To determine whether an oil discharge has entered waters regulated by Section 311 of the Act, a citizen simply inserts the statutory definition in place of the term 'navigable waters.'"

* * *

> "Navigability is not an element of this offense as it is excluded from the Act by definition." 364 F.Supp. at 350-51.

The Sixth Circuit affirmed the decision of the district court. As to the question of Congress' intent, the Court of Appelas found:

> "Congress' clear intention as revealed in the Act itself was to effect marked improvement in the quality of the total water resources of the United States, regardless of whether that water was at the point of pollution a part of a navigable stream.
>
> * * *
>
> "Congress in 1972 adopted a new definition of the term 'navigable waters' for purposes of the Federal Water Pollution Control Act. . . . .
>
> * * *
>
> "Like the District Judge, we believe Congress knew exactly what it was doing and that it intended the Federal Water Pollution Control Act to apply, as Congressman Dingell put it, 'to all water bodies, including main streams and their tributaries.'" 7 ERC at 1118-19.

In United States v. American Beef Packers, Inc., Crim. No. 74-O-30 (D.Neb. April 25, 1974), a corporation charged with discharing pollutants into "waters" moved to dismiss on the ground that the Government had failed to allege that the waters involved were navigable. The motion was denied because the court found that the allegation that the waters were navigable was not necessary in suits brought under the Water Act. Citing favorably the holdings in Holland and Ashland Oil, the court found that "Congress has the power to define away the old navigability restriction and clearly intended to do so in the 1972 amendments to the Federal Water Pollution Control Act." Slip Op. at 1.

In U.S. v. Phelps Dodge, 391 F.Supp. 1181 (D.Ariz., 1975), the court refused to find the Water Act's definition of navigable waters as "waters of the United States" to be unconstitutionally vague. The court stated:

> "The term 'waters of the United States' as used in the context of the Act and in keeping with the legislative intent apparently means just what is said: 'all waters of the United States including the territorial seas.'" Id. at 1185.
>
> * * *
>
> "For the purposes of this Act to be effectively carried into realistic achievement, the scope of its control must extend to all pollutants which are discharged into any waterway, including normally dry arroyos, where any water which might flow therein could reasonably end up in any body of water, to which or in which there is some public interest, including underground waters." Id. at 1187.

The court in United States v. Union Pacific, 8 ERC 1127 (D.Utah 1975), concluded that:

> "the term navigable waters of the United States,' as used in 33 U.S.C. § 1321(e) and further defined in 33 U.S.C. § 1362(7), was not meant by Congress to restrict regulatory control over the nation's waters for the purposes of pollution control merely to the traditional limits of navigability." Id. at 1128

In United States v. Smith, 7 ERC 1937 (E.D.Va. 1975), the court specifically addressed the question of jurisdiction under Section 404:

> "The federal regulatory jurisdiction over the navigable waters of the United States under the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403, et seq.) extends up to the mean high water mark. However, the much broader federal jurisdiction over 'waters of the United States' under the 1972 Amendments

> to the Federal Water Pollution Control Act (33 U.S.C. Section 1362(7)) extends well beyond the mean high water mark to marsh wetlands which are regularly or periodically inundated." Id. at 1938-39.

Finally (and this is not an all-inclusive synopsis of applicable court decisions), the court in Leslie Salt Co. v. Froehlke, 7 ERC 1311 (N.D.Cal. 1974), again in a case directly involving Section 404, held as follows:

> "We conclude that the Congress, enacting the FWPCA, was exercising its powers under the commerce clause to combat pollution of the nation's waters; that water pollution unquestionably affects interstate commerce and that, therefore, it was a proper exercise of the commerce power to require permits for dredging or filling which are potential cause of pollution of waters of the United States. . .; that the exercixe of the commerce power for that purpose is not limited by traditional 'navigable waters' definitions; that, although the (mean high water) line test may remain as proper test for other purposes. . . , that test does not limit federal regulatory power under the FWPCA." Id. at 1314.

The court found that not only could Congress extend the federal regulatory power in this way, but that it did extend it through the 1972 FWPCA amendments.



NEWS RELEASE

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON D.C. 20314

FOR PUBLIC RELEASE: 6 May 1975

Locke Mouton
202-693-6326

FEDERAL AUTHORITY FOR DISPOSAL OF DREDGED OR FILL MATERIAL EXPANDS

Federal authority to regulate the disposal of dredged or fill material in the waters of the United States will be greatly expanded under proposed regulations published in the Federal Register today and would include practically all lakes, streams, rivers and wetlands in the United States.

Under some of the proposed regulations, Federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wants to protect his land against stream erosion.

The U.S. District Court for the District of Columbia has ordered that the current U.S. Army Engineer regulations which control the disposal of dredged and fill material in "navigable waters" be revised and expanded to include the "waters of the United States." The Corps of Engineers previously confined its permit activities to "navigable waters of the United States," that is, those waters which are presently navigable have been historically navigable or which could be reasonably developed to be navigable.

On 27 March 1975, the District Court ruled that under Section 404 of the Federal Water Pollution Control Act Amendments of 1972, the responsibility and authority of the Corps of Engineers to regulate the disposal of dredged or fill material extends to "the waters of the United States." The Court directed that the proposed revised regulations be published within 40 days of the court decision.

The term "waters of the United States" as used in the Federal Water Pollution Control Act Amendments of 1972 has not been defined by the Congress or the courts. However, the Environmental Protection Agency defined the term in its regulations implementing its discharge permit program under Section 402 of the FWPCA to include:

(MORE)

a. All navigable waters of the U.S. and their tributaries.

b. All interstate waters.

c. All lakes, rivers and streams within a state which are used by interstate travellers for recreation and other purposes, or from which fish are taken and sold in interstate commerce, or which are used by industries engaged in interstate commerce, including agriculture.

However, since there is no basis in law or court edict to define the term "waters of the United State," the Corps of Engineers is offering four alternative regulations with varying scopes of application for review and public comment to assist it in the implementation of the court order. EPA is also publishing guidelines in the Federal Register of 6 May 1975 for the disposal of dredged or fill material covered by the Corps of Engineers regulations. A brief description of the scope of the four alternative proposals follows:

Alternative 1: Under this alternative, the broadest of the four alternatives, which is favored by the Environmental Protection Agency, the EPA definition of "waters of the United States" is used and the Federal jurisdiction over the disposal of dredged or fill material would extend to virtually every coastal and inland artificial or natural body of water as discussed above. The Federal authority would extend to the ordinary high water (mean monthly high tide mark in the case of coastal waters) or to the "aquatic vegetation line," whichever extends further shoreward. The aquatic vegetation line is the line beyond which plants which depend on periodic flooding to grow are unable to thrive.

Under Alternative 1, the Corps of Engineers would be required to regulate disposal of all dredged or fill material in virtually every wetland adjacent to coastal waters, rivers, estuaries, lakes, streams and artificial waters regardless of whether those wetlands are regularly or only periodically covered by salt water, brackish water or fresh water. This interpretation of the law would extend Federal authority to regulate dredge or fill operations in the thousands of square miles of land protected by levees. In those areas farmers may require a Federal permit before beginning plowing or land levelling operations.

The current Corps of Engineers procedures for issuing permits would be followed. State certification or authorization may also be required for many of the activities subject to Federal regulation. As a matter of policy, a Federal permit will not be issued when state authorizations or certifications have been denied. However, a Federal permit may be denied even if a state permit has been issued because of overriding national interest.

Alternative 2. This alternative includes a more limited definition of "water of the U.S." It includes only those coastal waters subject to tidal action to the mean high water mark or to the salt water vegetation line, whichever extends further shoreward. Jurisdiction over inland waters under this alternative is limited to navigable waters of the United States and their primary tributaries up to their headwaters. In most cases a permit would not be required for the disposal of less than 100 cubic yards of dredged or fill material.

Alternative 3. This alternative adopts the same broad definition of the "water of the United States" as contained in Alternative 1. However, current procedures for processing permit applications will be followed only for disposal of dredged or fill material in navigable waters of the United States. No applications for disposal of dredged or fill material other than in navigable waters of the U.S., will be processed unless there is no objection from an appropriate state agency. A favorable determination from the state will weigh heavily in the issuance of a permit unless there are overriding national interest to the contrary.

Alternative 4. This alternative, favored by the Department of the Army, adopts the limited definition of Alternative 2, and the initial state certification and authorization requirements of Alternative 3 prior to processing any application for the disposal of dredged or fill material in other than navigable waters.

Under any of the alternatives the Administrator of the Environmental Protection Agency can still overrule the Department of the Army's decision on a permit to discharge dredged or fill material in such cases if he concludes that the proposed water disposal in waters of the United States will have unacceptable adverse effects on municipal water supplies, shellfish beds, fishery areas, wildlife and recreational areas.

Some of the alternative proposals would require states to establish new procedures for evaluating the impact of placing dredged or fill material in waters of the United States and in effect to develop a state permit program of their own.

Under the broad interpretation of the 1972 FWPCA Amendments, millions of people may be presently violating the law. Convicted offenders may be subject to fines of up to $25,000 a day and one year imprisonment. These persons could also be required to remove any fill material or structures placed without a permit in or on waters of the United States.

Discharge of fill material in wetlands will not be permitted unless the applicant is able to demonstrate that the proposed activity is significantly dependent on the water resource and in the public interest.

Some of the new regulations would control the placing of dredged or fill material in intermittent streams, or those areas that are dry part of the year as well as lands that are subject to "periodic inundation" only.

The proposed changes in the Corps of Engineers permit regulation apply only to the water disposal of dredged or fill material but not to permits for construction of piers, wharfs, pilings, dikes and dams. Regulations for the latter are not affected by the proposed rules published in the Federal Register today.

All comments or suggestions on the four proposed alternative regulations received in writing by the Office of the Chief of Engineers, Department of the Army, ATTN: DAEN-CWO-N, Washington, D.C. 20314, on or before 6 June 1975 will be considered before publication of the final regulations.

National Wildlife Federation

1412 16th ST., N.W., WASHINGTON, D.C. 20036 Phone: 202 [illegible]

May 12, 1975

The Honorable Howard H. Calloway
Secretary of the Army
Pentagon
Washington, D.C. 20301

Dear Secretary Calloway:

The National Wildlife Federation has always tried to play fair with the Army Corps of Engineers, and we have always expected the same. Until recently, I thought we were doing pretty well.

I am in receipt of a news release issued May 6, 1975, by the Office of the Chief of Engineers and disseminated actively by that Office and its Washington, D.C. and field staff. This release comes as a result of a long standing but I hope gentlemanly controversy which conservationists have had with the Corps concerning the scope of the Corps' responsibilities under Section 404 of the Federal Water Pollution Control Act. The release concerns new Corps' regulations for dredge and fill operations under Section 404, proposed after court order earlier this spring, and states at the outset:

> "Under some of the proposed regulations, Federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wants to protect his land against stream erosion."

These statements, Mr. Secretary, are untrue. Even the broadest alternative in Corps' regulations nowhere proposes an extension of authority to cover stock ponds and plowed fields, and we have nowhere urged it. The use of the word "may" renders the statements more elusive, but no more accurate. The release is apparently a tactic to scare farmers and ranchers into support for the narrowest definition of the Corps' responsibility possible (which is of course the position the Corps favors). With the active assistance of Corps' staff, the scare is working; the untrue statements have been picked up verbatim [illegible] edited in lead stories by several major newspapers, including [illegible] and the Portland Oregonian.

The scare is apparently not limited to farmers and ranchers. As reported in the New York Times, May 9, 1975:

> "In addition to farmers and ranchers, a spokesman for the Corps said that the strongest proposal could also force some housewives and golf course greenskeepers to get Federal permission to fill a backyard swiming pool or construct a new sand trap."

Who is this "Corps spokesman," Mr. Secretary? Does he speak for your Office as well?

I am writing on behalf of the largest conservation organization in this country, an organization that has tried hard over the years to work closely with the Army Corps of Engineers to resolve our differences. In the case at hand, the facts concerning the Corps' proposed regulations are presented in a misleading and inflammatory fashion. Predictably, the press has seized upon the most inflammatory (and untrue) aspects of the release. I ask that the Corps issue a release at the earliest possible time which clarifies this matter before further damage is done.

Sincerely,

THOMAS L. KIMBALL
Executive Vice President

cc The Honorable Victor V. Veasey, Asst. Secretary of the Army for Civil Works
Lt. General W. C. Gribble, Jr., Chief, Army Corps of Engineers
Corps of Engineers Environmental Advisory Board
The Honorable Jennings Randolph, Chairman, Senate Public Works Comm.
The Honorable Robert E. Jones, Chairman, House Public Works and Transportation Comm.
The Honorable Russell E. Train, Administrator, EPA
The Honorable Russell W. Peterson, Chairman, CEQ
The Honorable Nathaniel P. Reed, Asst. Secretary of the Interior
Board of Directors, NWF
Trustees, NWF Endowment, Inc.



SECRETARY OF THE ARMY
WASHINGTON

11 JUN 1975

Mr. Thomas L. Kimball
Executive Vice President
National Wildlife Federation
1412 16th Street, N. W.
Washington, D. C. 20036

Dear Mr. Kimball:

This is in further reply to your letter of 12 May 1975 to me and 23 May 1975 to Mr. Veysey concerning the Corps of Engineers jurisdiction over navigable waters of the United States.

We regret the interpretations that are being drawn from the 6 May 1975 news release. Unfortunately, some people have interpreted the press release to mean that all farmers must obtain permits whenever they plow a field. That, of course, would not be required. However, the U. S. District Court order is very far-reaching. With this in mind, we solicited full public involvement in preparing the final regulation. As a member of a leading conservation organization, your comments are particularly valuable to us and most welcome.

The Corps has made some preliminary estimates of the shorelines of tidewaters, lakes, rivers, and streams bounding agricultural lands which would be embraced in the regulations. For Alternatives 1 and 3 the shoreline mileage is about 2,700,000 miles, and for Alternatives 2 and 4, about 700,000 miles. The difference, of course, is the shorelines on which jurisdiction would be retained by the states under Alternatives 2 and 4. Although Congress seemingly did not provide clearly for the Corps to limit its jurisdiction over waters of the United States, we are exploring all possibilities, and legislation may be required. In this regard, I am inclined to delegate as much of this program as possible to the states, and legislation would clearly be required to accomplish this.

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.. Thomas L. Kimball

The final time for receipt of comments was originally June 6, but we found that date too early for the preparation of many responses, so I and the other parties to this action requested that the court permit us to extend the deadline by 40 days. Judge Aubrey Robinson granted our request on 6 June. Our final revised regulations are to be published by 26 July.

Mr. Veysey and I sincerely appreciate your interest in this very important issue. We are attempting, as you suggested, to defuse the controversy that has received wide press coverage. Mr. Veysey was glad to get your offer to meet with him. Please call him (697-8986) at your convenience to arrange a meeting.

With best regards.

Sincerely,

Bo Calloway

Howard H. Callaway

[From the Seattle Post-Intelligencer, May 7, 1975]

U.S. Wants to Control All Ponds and Ditches

WASHINGTON — The Army Corps of Engineers, seeking to expand its jurisdiction over U.S. waters, has proposed a regulation which would give it authority over every lake, stream, stock pond, irrigation ditch and marsh in the nation.

It could require farmers to obtain a permit before plowing fields next to levees, dredging irrigation ditches or enlarging artificial stock ponds. It could force a mountain dweller to get federal approval to protect land against stream erosion.

The proposal, the strongest of four alternatives submitted by the agency for public comment, is supported by the Environmental Protection Agency. All four would greatly expand the engineers' authority to regulate the dredge or fill operations involving waters or wetlands.

The proposals stem from a recent federal court decision giving the corps jurisdiction over dumping or dredging on "waters of the United States," a phrase the corps says has never been legally defined. The proposals represent an attempt to define the phrase, the corps said.

The four proposals:

1. Grant the corps authority over every coastal and inland artificial or natural body of water in the nation, including wetlands. The corps said this would extend federal authority to regulate dredge or fill operations in the thousands of square miles of land protected by levees. In those areas farmers may require a federal permit before beginning plowing or land-leveling operations."

2. Limit corps authority over coastal waters to the mean high-water mark or salt-water vegetation line, whichever extends farther, and over inland waters to navigable waters and their primary tributaries up to their headwaters. In most cases, the corps said, a federal permit would not be required for operations involving less than 100 cubic yards of material.

3. Extend the engineers' authority as in proposal No. 1, but follow current procedures for issuing dredge or fill permits only in navigable waters. For other waters such as stock ponds and drainage ditches, permits would be issued unless appropriate state agencies object.

4. Extend corps authority as in No. 2 and the issuance regulations as in No. 3. This is the proposal preferred by the corps.

All corps permits would be subject to revocation by the administrator of the EPA.

All comments should be submitted to the corps by June 6.

Environmentalists and the corps have been at odds for some time over how much authority the corps should exercise under the federal Water Pollution Control Act of 1972. This the agency should regulate dredging and filling in "the waters of the United States."

A National Wildlife Federation spokesman said: "To a real-estate developer a coastal wetland is a watery wasteland—an area to be drained, filled and covered with homes or factories."

The federation and the National Resources Defense Council won a suit in U.S. District Court here March 27 to get the corps' jurisdiction extended farther inland than the tidal mean high-water mark.

Judge Aubrey E. Robinson Jr. did not say in his decision, however, exactly how far inland the corps' control should extend.

Environmentalists decry corps' tactics

Washington (AP)—Environmental organizations accused the Army Corps of Engineers yesterday of stirring up a nationwide scare campaign by asserting that a proposed regulation would force some farmers to get federal permission to plow fields.

"With the outrageous scare threat that they are going to strictly police the plowing of fields and construction of farm ponds across, the nation, corps officials are inciting an uninformed backlash from citizens," the organizations said in a joint statement. The controversy, they said, could be used to help officials escape the responsibility Congress has given them for protecting lakes, streams, rivers and wetlands.

"It has absolutely nothing to do with a farmer's spring plowing or the rancher's stock pond," they added. "The regulation will govern spoil disposal from dredging operations and also the filling of wetlands for commercial or other development."

On Tuesday, the Army Corps issued four alternative proposals expanding its authority over dredge and fill operations from navigable waters to "waters of the United States" to comply with a U.S. District Court order.

The corps asserted in a statement that the strongest proposal would give it jurisdiction over "virtually every coastal and inland artificial or natural body of water."

In addition to farmers and ranchers, a corps spokesman said the strongest proposal also could force some homeowners and golf course greenskeepers to get federal permission to fill a backyard swimming pool or construct a new sand trap.

However, a National Resources Defense Council spokesman said the corps' legal authority would not be that extensive. The corps' jurisdiction would be expanded only to include those waters already regulated for industrial and municipal pollution control by the Environmental Protection Agency, he said.

The corps' expansion would extend to such areas as marshes and sloughs bordering streams, intrastate lakes and marshes over which the corps previously had no jurisdiction and tidal or coastal marshes, he said.

[From the Detroit Free Press, May 15, 1975]

Army Engineers Deception

THE ASTOUNDING claim a few days ago that the Army Corps of Engineers was about to take over every backyard swimming pool and stock pond was a patently cynical interpretation of a court ruling that the Corps must comply with terms of the Federal Water Pollution Control Act.

The deception was all the more offensive because it was the Corps itself which promulgated the deceit.

In fact the U.S. District Court order only confirmed the Corps had expanded authority under the law for protecting the nation's lakes, rivers, streams, and wetlands from unwise dredging, filling, and soil disposal operations.

The Corps' new jurisdiction includes such areas as marshes and sloughs bordering streams, intrastate lakes and marshes, and tidal or coastal marshes. All these waters already are regulated for industrial and municipal pollution control by the Environmental Protection Agency.

The Corps, in a self-serving press release, unleashed a scare campaign expressly designed to stampede farmers and other affected citizens into demanding the law's non-enforcement. Such ridiculous assertions were made that farmers would be required to get a permit to plow their fields next to levees, and that mountain dwellers would have to get permission to protect their properties against erosion.

The Corps' shameful performance in this matter illustrates perfectly why the agency is held in such disrepute by a broad spectrum of the public. Environmental groups, in a joint statement reacting to the Corps' latest subterfuge, offered this succinct observation:

"Evidently the Corps is more interested in slaughtering streams, rivers and wetlands with their dams and channelization projects than in helping to protect them."

The Corps eventually will have to accept the fact its chief function no longer is to dam every free-flowing stream for which it can get congressional authorization. If it is to continue to exist, it must adapt to the new climate of environmental concern that makes stream and lake *protection* the paramount goal.

If the Corps doesn't feel it can accept its new responsibilities, the only remaining recourse is for Congress to disband an agency that has outlived its usefulness.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

16 MAY 1975

THE ADMINISTRATOR

Dear General Gribble:

It is becoming increasingly apparent that the recently proposed regulations and guidelines published by the Corps of Engineers and EPA governing the implementation of section 404 of the Federal Water Pollution Control Act are being misunderstood by the public and by Congress. Most of this confusion and misunderstanding is directly attributable to the seriously inaccurate and misleading press release issued by the Corps at the time the regulations were published. Because of the extreme importance of section 404 as the primary mechanism to protect America's valuable wetland resources, I consider it imperative that the Corps of Engineers take steps to remedy these impressions.

We are particularly concerned that the false impression that farmers must obtain permits whenever they plow a field be corrected. Since this was clearly not contemplated by either the Corps or EPA and is not required by the statute, we fail to understand how such a statement could appear in this press release. As you are well aware, the primary concern of section 404 is to address situations where dredged or fill material is discharged into wetland areas. By no stretch of the imagination can the simple act of plowing be considered to fall within that category.

The Corps has also stated to the public that "millions of people may be presently violating the law." Obviously, there are some discharges of dredged or fill material presently occurring which are not regulated due to the Corps' present restrictive definition. Such discharges should and would be regulated under a broader approach. To say, however, that this number approaches millions is totally without basis.

The illustrations contained in the press release have led to EPA receiving numerous inquiries about the types of activities covered by the program. The confusion about its applicability is apparent. For example, it has been suggested that section 404

applies to any area where there is a body of water which has the potential of flooding and that a rice farmer is violating the law if he puts any acreage into cultivation without a permit. Clearly this is not true. While there may be some rice growing operations which are located in wetland areas and which may involve the discharge of fill material for the building of dikes, it is unreasonable to assume that all rice operations fall within this category. Merely because an agricultural operation involves water does not mean that it is subject to section 404. As we indicated in our preamble to our guidelines, we believe that regulations can be developed which will provide effective administration of a permit program within the broader definition of "navigable waters", without involving the extreme and unwarranted extensions of federal jurisdiction mentioned in your letter.

Both EPA and the Corps have issued policy statements recognizing the need to protect wetland areas. It would be unfortunate indeed if, on the basis of these recent misconceptions, legislative changes were made to return the statutory definition of jurisdiction to traditional concepts of navigability. Such a change would leave vast areas of valuable wetlands without the protection of this regulatory mechanism and possibly subject them to uncontrolled development.

I strongly urge the Corps of Engineers to work with us in the development of our section 404 program within the spirit of the Federal Water Pollution Control Act and to take immediate action to correct the misunderstandings which your department's public statements have created.

Sincerely yours,

Russell E. Train

Lt. Gen. William C. Gribble, Jr.
Chief of Engineers
Room 4A-245
1000 Independence Avenue
Washington, D. C. 20314

[From the Congressional Record, June 5, 1975]

WATER POLLUTION CONTROL

Mr. MUSKIE. Mr. President, in 1972, the Congress comprehensively revised Federal water pollution control policy. The 1972 Clean Water Act established a minimum and uniform regulatory regime for the control of the discharge of effluents into the navigable waters of the United States.

Prior to the enactment of the 1972 amendments, Federal responsibility for water pollution control was limited to approval of State water quality standards and associated implementation plans for interstate streams. Interstate streams were defined administratively to include only a small portion of the Nation's surface waters. Few sources of pollution were actually subject to Federal abatement action. The result was an inadequate unsystematic water pollution program which was in no way responsive to the Nation's demand for clean water.

The only significant enforcement tool available to the Environmental Protection Agency was the little-known 1899 Refuse Act which barred the discharge of material into the Nation's navigable streams without a permit. The decision to use that statute, combined with the recognition of the inadequacy of the water quality standards approach to pollution control led the Congress to revise the basic national water pollution law.

The 1972 law prohibits any discharge into the Nation's navigable waters without a permit from the Environmental Protection Agency. The Environmental Protection Agency was given the authority to regulate all discharges into navigable waters except for the discharge of dredge or fill material which is regulated by the Secretary of the Army. Also, in 1972, the Congress broadened the traditional definition of navigable waters in recognition of the fact that pollutants migrated into the Nation's waters through water courses, swamps, creeks, and underground sources, many of which simply were not "navigable" in the traditional sense but the pollution impact was sufficient to merit regulation.

Thus, the term navigable waters was defined to mean "waters of the United States including the territorial seas." The Senate report on the 1972 act noted that—

> Water moves in hydrologic cycles . . . and therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries.

To complete the history on this issue, the 1972 act defines discharge of pollutant as "any addition of any pollutant to navigable waters to a point source"; and goes on the define point source as "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."

Thus, any discharge of any pollutant is subject to Federal regulation, if such discharge is from a point source into a navigable water, either by the Environmental Protection Agency—or a State—or the Corps of Engineers. The law did not authorize regulation of pollutants which migrate to the navigable waters from nonpoint sources. Pollutants which run from farmers fields, overflow from farmers stock ponds or otherwise enter the navigable waters from nonpoint sources are subject to State regulation and State regulation only.

Mr. President, I cite this extensive legislative history because of a controversy which has been provoked by a distorted and mischievous announcement of regulatory action by the U.S. Army Corps of Engineers relative to its responsibility to regulate the discharge of dredge or fill material into the navigable waters. The Corps, in what appears to be a deliberate attempt to distort Federal water pollution policy for purposes which I do not understand, publicly announced that a court decision which upheld the intent of Congress as regards the meaning of navigable waters would have the effect of placing thousands of farmers in violation of Federal law. Nothing could be further from the truth and the Corps knows it.

The Administrator of the Environmental Protection Agency, Russell Train, has castigated the Corps for what he describes as a "seriously inaccurate and misleading press release." I ask unanimous consent that Administrator Train's letter, as well as a Washington Post editorial be inserted in the RECORD at the end of my remarks. I also ask unanimous consent that a letter from me to Secretary of the Army Howard Callaway be printed in the RECORD as well.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. MUSKIE. Mr. President, I have called on the Secretary of the Army to publicly retract the press release which has already caused so much concern and confusion regarding this important issue. I have asked that the Secretary's announcement of retraction be circulated to the media and placed in the Federal Register and I have asked the Secretary to investigate carefully to determine how and why this unfortunate event came to pass.

I only hope that this matter can now be ended and we can get on with the job of regulating the discharge of dredge or fill materials in such a manner as to protect both the Nation's wetlands and the quality of all of the Nation's waters.

EXHIBIT 1

WASHINGTON, D.C.,
May 16, 1975.

LT. GEN. WILLIAM C. GRIBBLE, JR.,
Chief of Engineers,
Washington, D.C.

DEAR GENERAL GRIBBLE: It is becoming increasing apparent that the recently proposed regulations and guidelines published by the Corps of Engineers and EPA governing the implementation of section 404 of the Federal

Water Pollution Control Act are being misunderstood by the public and by Congress. Most of this confusion and misunderstanding is directly attributable to the seriously inaccurate and misleading press release issued by the Corps at the time the regulations were published because of the extreme importance of section 404 as the primary mechanism to protect America's valuable wetland resources, I consider it imperative that the Corps of Engineers take steps to remedy these impressions.

We are particularly concerned that the false impression that farmers must obtain permits whenever they plow a field be corrected. Since this was clearly not contemplated by either the Corps or EPA and is not required by the statute, we fail to understand how such a statement could appear in this press release. As you are well aware, the primary concern of section 404 is to address situations where dredged or fill material is discharged into wetland areas. By no stretch of the imagination can the simple act of plowing be considered to fall within that category.

The Corps has also stated to the public that "millions of people may be presently violating the law." Obviously, there are some discharges of dredged or fill material presently occurring which are not regulated due to the Corps' present restrictive definition. Such discharges should and would be regulated under a broader approach. To say, however, that this number approaches millions is totally without basis.

The illustrations contained in the press release have led to EPA receiving numerous inquires about the types of activities covered by the program. The confusion about its applicability is apparent. For example, it has been suggested that section 404 applies to any area where there is a body of water which has the potential of flooding and that a rice farmer is violating the law if he puts any acreage into cultivation without a permit. Clearly this is not true. While there may be some rice growing operations which are located in wetland areas and which may involve the discharge of fill material for the building of dikes, it is unreasonable to assume that all rice operations fall within this category. Merely because an agricultural operation involves water does not mean that it is subject to section 404. As we indicated in our example to our guidelines, we believe that regulations can be developed which will provide effective administration of a permit program within the broader definition of "navigable waters", without involving the extreme and unwarranted extensions of federal jurisdiction mentioned in your letter.

Both EPA and the Corps have issued policy statements recognizing the need to protect wetland areas. It would be unfortunate indeed if, on the basis of these recent misconceptions, legislative changes were made to return the statutory definition of jurisdiction to traditional concepts of navigability. Such a change would leave vast areas of valuable wetlands without the protection of this regulatory mechanism and possibly subject them to uncontrolled development.

I strongly urge the Corps of Engineers to work with us in the development of our section 404 program within the spirit of the Federal Water Pollution Control Act and to take immediate action to correct the misunderstandings which your department's public statements have created.

Sincerely yours,

RUSSELL E. TRAIN

WETLANDS AND THE CORPS OF ENGINEERS

Over the years, the Army Corps of Engineers has earned a reputation for its often high-handed disregard of the environment. From time to time, one citizens' group or another would try to stop the Corps when a given project was blatantly ill-conceived, but usually these groups were plowed under as easily as a tree stump by a Corps bulldozer. But then an awareness of the nation's fragile ecology began to spread, and the Corps was forced to adopt a measure of responsibility. It did so—however reluctantly. An indication of just how deep that reluctance has been is seen in a current campaign of the Corps in response to a court order for the engineers to expand their responsibilities under the Federal Water Pollution Act.

Following the March decision of a U.S. District Court judge in Washington—a decision intended to enlist the Corps to prevent developers and builders from destroying ecologically useful wetlands—the Corps responded by announcing that "federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wants to protect his land against steam erosion." Such a tactic—rousing farmers and others to think they may need the government's permission to plow a field, dig a ditch or whatever—may have been useful to the Corps in rallying the support of those who think they see a federal big brother behind every tree. Others, with better vision, immediately saw what the Corps was doing. Russell E. Train, director of the Environmental Protection Agency, said in a letter to the Corps that "confusion and misunderstanding" were spreading because of the "seriously inaccurate and misleading" presentation the Corps made following the court order.

A week before Mr. Train's letter, which asked the Corps to end its misleading campaign, a number of environmental groups—including the Natural Resources Defense Council, one of the winning plaintiffs in the original suit, issued a statement alleging that "with the outrageous threat that they are going to strictly police the plowing of fields and construction of farm ponds across the nation, Corps officials are attempting to incite a uniformed backlash from citizens to help the Corps escape the environmental responsibilities Congress has given it.

It is doubtful that many farmers, ranchers or mountaineers are being persuaded by the Corps' presentation. More likely, they would prefer, that the engineers get on with the work that the courts, EPA and Congress are asking them to do, and which the Corps knows how to do well. According to the National Wildlife Federation, America has already lost 40 per cent—45 million acres—of its wetland resources. An effort is being made to hold the line at that figure. But unless the Corps of Engineers chooses to make a positive contribution, the destruction will go on. If there is any difference this time, it is that the courts, EPA and environmental groups will be watching closely to see that the Corps is held accountable.

JUNE 5, 1975.

Hon. HOWARD H. CALLAWAY,
Secretary of the Army,
The Pentagon, Washington, D.C.

DEAR MR. SECRETARY: I am deeply concerned by the recent press release of the Corps of Engineers regarding options for the regulation of the discharge of dredge or fill materials into the nation's navigable waters. This press statement is mischievous and distorts an important issue. It demands public retraction.

I would hope you will announce such a retraction in the same manner and with the same vigor which obviously accompanied the original release. Also, I would hope you would investigate the source of the release to determine why it came about in the first place so that any necessary remedial action can be taken.

I am enclosing a copy of the statement which I made on this issue on the floor of the Senate today. I hope that you share my sense of urgency in responding to this issue.

Sincerely,

EDMUND S. MUSKIE,
Chairman, Subcommittee on Environmental Pollution.

[From the Cumberland News, May 17, 1975]

EPA Says Corps Statements False

WASHINGTON (UPI) — The Environmental Protection Agency accused the the Army Corps of Engineers Friday of falsely claiming it would have to regulate farm plowing and other activities under a proposed rule to safeguard America's wetlands.

In a sharply worded letter, EPA administrator Russell E. Train demanded that Lt. Gen. William C. Gribble of the Corps to "take immediate action to correct the misunderstandings which your department's public statements have created."

Statements by the Corps about the impact of the proposed regulation also drew fire from the Natural Resources Defense Council, a private environmental group that charged the Corps was conducting a deliberate "national scare campaign."

The council said the engineers were trying "to arouse farmers and ranchers against the new environmental regulations," which the Corps opposes, and thus get the rules relaxed. Train implied much the same thing in his letter.

The controversy stems from four alternative regulations proposed by the Corps May 6 to protect swamps from the dredging and filling that has turned many of the nation's wetlands into housing developments or industrial complexes.

Corps officials said the most stringent of the four alternatives, the one favored by the EPA, would force farmers to get federal permits before plowing riverside fields or filling in farm ponds. They said any area subject to flooding was covered and suggested rice farmers would have to get permits before putting acreage into cultivation.

[From the St. Louis Post-Dispatch, June 5, 1975]

Inciting A Backlash

The Army Corps of Engineers, not known as an ardent protector of the environment, is being forced into that role by Congress and the courts. Traditionally the Corps's jurisdiction, under the 1899 Refuse Act, extended to dredge and fill operations in "navigable waters." But under 1972 amendments to the Federal Water Pollution Control Act, its authority was broadened to include all "waters of the United States"—lakes, rivers, streams, wetlands, riverine marshes and swamps—the objective being to protect environmental values and human health.

Still reflecting its accustomed interest in dam-building and dredging, the Corps, in April 1974, issued new regulations under the 1972 act dealing only with "navigable waters." As a result of a suit by the Natural Resources Defense Council and National Wildlife Federation, however, a federal district court in Washington in March ordered the Corps to revise its regulations to fully implement the broader definition of the 1972 law. In response to a court order, the Engineers then proposed final regulations which, they said in a press release, could require farmers to obtain permits before plowing fields adjacent to levees, digging irrigation ditches or enlarging artificial stock ponds.

The controversial press release was obviously designed to influence popular reaction to the proposed regulations during the period for public comment which expires at the end of this week. Environmentalists characterized it as an attempt to incite an uninformed backlash from citizens to help the Corps escape its environmental responsibilities. Russell Train, the head of the Environmental Protection Agency, called it "seriously inaccurate and misleading." One theory was that the Corps was trying to undermine the 1972 law because it would put under review many of its favorite dredging and dumping sites.

When the final regulations go into effect, however, the Corps should not be allowed to avoid the real congressional objective, which is not to interfere with farmers' spring plowing but, as the NRDC put it, to protect ecologically valuable wetlands that "provide vital wildlife habitat, absorb and blunt the force of floods, and serve as recharge areas for our dwindling groundwater supplies."

[From the New York Times, June 16, 1975]

True to the Corps

The Army Corps of Engineers has cooked up a scheme to evade a provision of law that it doesn't like by reducing a court order to such absurdity that it hopes thereby to force a change in the law. The strategy should be as unsuccessful as it is unconscionable.

Until this year, the Corps—which has always been more interested in building projects than in preserving the environment—narrowly interpreted its function of controlling dredging and filling operations affecting the country's waterways. However, in the Water Pollution Control Act of 1972, Congress had made it clear that the Corps' protective program was to apply not only to "navigable" waters, as heretofore, but also to the country's lakes, streams, rivers and wetlands as well. The Corps chose to ignore that extremely significant change in wording from previous law, continuing to confine its attentions to navigable waters only, to the grave detriment of tributaries and wetlands.

The upshot of a suit brought by the Natural Resources Defense Council and the National Wildlife Federation was a United States District Court decision three months ago that Congress meant just what it said, whereupon the Corps deliberately proceeded to stretch its newly accepted jurisdiction beyond reason. Federal permits, the Corps announced, might now be required of the "farmer who wants to deepen an irrigation ditch or plow a field" or "the rancher who wants to enlarge his stock pond." "Millions of people," the Corps solemnly warned, "may be presently violating the law" and subject to severe penalties.

If such inflammatory nonsense was intended to raise a hue and cry, it succeeded. Congressmen are being pressed by the farm bloc and other lobbies to re-establish "navigable waters" as the only area of the Corps' jurisdiction. This would leave at the mercy of the developers the 60 per cent of the nation's economically and environmentally invaluable wetland resources still intact.

Public pressure should be directed not at Congress to tamper with the Water Pollution Control Act but at the Corps of Engineers, the Army and the Administration itself to execute, not sabotage, the law of the land as interpreted by the courts.

[From the Fort Myers News-Press, April 21, 1975]

Engineers Corps Has No Excuse

A federal court judge in Washington, D. C. finally has forced the U. S. Army Corps of Engineers to end a three-year stall and start working to protect the environment. The three-year delay has been unconscionable and inexcusable but is typical of this die-hard foe of environmentalists.

Judge Aubrey E. Robinson has ruled that the corps must greatly expand its authority to grant or deny permits for private developments along our coasts, rivers, lakes and marshes.

Robinson's edict is bad news for shorefront condominium builders and other waterfront developers who have destroyed much of the nation's wetlands by dredging, filling and pollution — much of it aided and abetted by the corps' do-nothing stand.

During most of this century, the corps sought to protect only the "navigability" of waterways. It clung to this narrow mandate after a public outcry arose in the 1960s against reckless development, and it continued to sit on its hands even after Congress in 1972 declared that all U. S. waters were "navigable" for purposes of pollution control.

Congress knew what it was doing when it declared all U. S. waterways navigable: it tore away the legal shield behind which the corps had long been hiding. Henceforth, said Congress, the corps should not limit its permit-granting powers to the zones below the mean high tide of coasts or the normal high watermark of rivers. It should take jurisdiction over all wetlands intimately linked with navigable waters.

Yet in the three years since Congress demolished the shield of navigability, the corps still refused to budge. Florida conservation groups tried in vain to halt ruinous coastal dredging. The corps continued to refuse to grant or deny permits for developments above mean high tide. The National Wildlife Federation and the Natural Resources Defense Council finally sued the corps in the landmark case which Judge Robinson has just decided.

The victory will bring most wetlands developments under a permit review that includes public hearings and potential vetoes by the Environmental Protection Agency. The EPA is already drafting permit guidelines for the corps. The guidelines will enable the corps to control developments below the line of dryland vegetation along our coasts and on lands that could feed pollutants directly into lakes, rivers or their tributaries.

Our wetlands are an economic heritage that must be preserved. They support waterfowl, marsh animals and two-thirds of our fish and shellfish harvests.

The corps will need to be watched closely to see how well it performs under the court order that should never have had to be issued.

June 3, 1975

Office of the Chief of Engineers
Forrestal Building
Washington, D.C. 20314

Dear Sir:

As a professional ecologist and as a citizen for many years actively interested in maintaining the quality of our environment and in the conservation of our natural resources, I am writing to urge that the U.S. Army Corps of Engineers expand its jurisdiction over the nation's waterways according to the order of U.S. District Court Judge Anbrey E. Robinson Jr. on March 27, 1975. This was a ruling that could curb coastal and inland waterside development by regulating dredge and fill development in non-navigable waters.

In other words, I am requesting that all wetlands and non-navigable waters be protected under the new Army Corps of Engineers regulations. In particular, I urge the implementation of Alternative 1, as supported by the EPA, the Justice Department, the National Wildlife Federation and the National Resources Defense Council. The wetlands developers must be regulated if we are to save our most biologically productive ecosystems, and it seems to me that on the basis of hydrography and biology, this is presently the most objective and reasonable way to accomplish these ends.

Sincerely yours,

Donald J. Zinn
Professor Emeritus

DJZ/sla
cc: Mr. Kenneth MacKenthum

[From the New Orleans States-Item, September 25, 1975]

Wetlands row

Louisiana Congressmen John Breaux and David Treen are vexed over new regulations extending the U.S. Army Corps of Engineers' permit authority into wetlands adjoining navigable water bodies.

Until July 25, 1975, the Corps' authority over dredge and fill operations under Section 404 of the federal Water Pollution Control Act amendments of 1972 extended only to navigable waters of the United States.

The Corps' revised regulations were published in the Federal Register last July 25 in compliance with a federal court order. In three phases over the next three years, the new regulations ultimately would extend the Corps' authority up to the very head waters of navigable streams.

There may be a need for a clearer definition of navigable waters, as Rep. Treen suggested through an assistant at the public hearing in Baton Rouge last Wednesday. Yet the basic purpose of the revised regulations is clear enough. The purpose is to discourage public and private developments either in or adjoining navigable water bodies which could adversely affect entire ecosystems. For instance, a dam at the head waters of the Tangipahoa River could render the stream unnavigable and cause serious damage to the ecosystem of Lake Pontchartrain, into which the river normally flows.

Man-made canals, such as those connecting the former wetlands on which the Eden Isles subdivision is constructed to Lake Pontchartrain, may, as studies have demonstrated, have a serious impact on the water quality and recreational value of a public lake. There is an obvious need for strict regulation of such activities if wetlands are to survive as productive ecosystems.

Unfortunately, there is little evidence that either the Corps or Louisiana state agencies have been effective in controlling indiscriminate development in Louisiana's wetlands. A state Coastal Zone Management program, in keeping with the federal Coastal Zone Management Act of 1972, offers some hope of effective state control of wetlands development. But the experience in Louisiana argues for a strong federal presence, in any case, if ecological havoc is not to prevail in the state's vast and productive wetlands.

[From the Washington Post, May 8, 1975]

Watching Over the Wetlands

THE HOUSE PUBLIC WORKS Committee may have done environmental groups a favor, in a backhanded way, by voting to block federal regulation of dredging and filling in most of the nation's wetlands. The committee's precipitate action has not only focused more public attention on the threats to valuable marshes, bogs and swamps. It has also compelled the advocates of a broad wetlands protection program to appeal for congressional and public support. The resulting debate may help to clear away some of the confusion and misinformation that have clouded the subject for the past few years.

The current controversy goes back to 1972, when Congress, in the clean water law, extended the Army Corps of Engineers' regulatory powers from navigable waters to "waters of the United States." Apparently some legislators failed to recognize that this change gave the Corps power to regulate dredging and filling operations in all wetlands areas, small creeks, lakes and recreational canals, as well as along commercial waterways. The Corps itself did not accept this enlarged jurisdiction readily, and did not move to carry out its new authority until ordered to do so by a federal district court here last year.

The second and most damaging element of misunderstanding was injected at that point. In its initial response to the court decision, the Corps declared that an expansive reading of the law would require every farmer to get a federal permit to enlarge a stock pond or shore up a drainage ditch. Predictably, this brought a storm of protest from farm groups and others who did not want to see the Corps marching up every stream and patrolling every damp field across the continent. Such fears appear to be greatly exaggerated, because the Corps and the Environmental Protection Agency have worked out careful plans for phasing in the new system of review and minimizing interference with minor projects such as farm maintenance. Even so, the subject came to be widely viewed as another example of overregulation from Washington. This feeling played a major role in the House panel's approval of a proposal, sponsored by Rep. John B. Breaux (D-La.), to limit the Corps' authority to navigable waters to the mean high-water mark, a jurisdiction slightly more restricted than that which the Army exercised before 1972.

The House committee's brusque approach would undo years of increasingly perceptive efforts to safeguard the nation's dwindling store of wetlands, along the coasts as well as in upland and inland areas. These irreplaceable resources are most generally appreciated as breeding and feeding grounds for wildlife. They also function, however, as natural cleansers for polluted waters and as buffer zones for flood control. These benefits are not always apparent until the wetlands have been destroyed. In North Dakota, for instance, many wetlands have been filled for farming purposes; one result has been to turn the Souris River into a raging torrent in 5 of the past 7 years.

The Breaux amendment thus reflects a short-sighted, insensitive attitude toward resources protection. While rightly protesting that move, however, some environmental groups have fostered yet another misconception that ought to be dispelled. This is the notion that regulation of wetlands by the Corps is the only alternative to no control at all. Despite its new environmental consciousness, the Corps of Engineers is not the ideal agency—and certainly not the only qualified one—to make delicate judgments about the future of these areas. Moreover, state and local governments should be encouraged to assume far more responsibility than most have asserted until now. EPA Administrator Russell E. Train and some members of the House committee have indicated interest in working out a cooperative approach that might win broader public acceptance than a federally dominated plan, and thus prove even more effective in the long run. If the Breaux amendment becomes a catalyst for this kind of re-thinking, the House committee's retreat could turn out to be advantageous after all.



Associated Press

[From the Baton Rouge, La. Advocate, May 26, 1976]

Wetlands: A Case Of Overreaction

The latest move in the controversy over control of the Louisiana wetlands appears to be a case of action-overreaction.

There was considerable concern, and rightly so, when the U.S. Corps of Engineers acquired, under federal court order, jurisdiction over dredge and fill operations in "waters of the United States." Previously, the Corps had largely confined its control to navigable streams.

There were fears that under its vast new juridsiction, the Corps would have the power to prevent a farmer from digging a drainage canal across his land.

The Corps seemed to take the position that it had its hands full with more important things, but the controversy did not go away.

Now, Rep. John B. Breaux of Crowley has introduced a measure in Congress that would severely restrict the Corps' authority to regulate dredge and fill operations in wetlands, creating an even bigger furor over the possibility that this would open the wetlands for exploitation.

Breaux' contention is that the tidal wetlands can best be protected through the Coastal Zone Management Act, which permits local and state governments to adopt protective regulations.

However, Louisiana does not yet have a coastal management plan, and the federal act he would rely upon does not affect inland marshes.

Breaux has now drawn the ire of officials of the Interior Department, the National Wildlife Federation, the U.S. Fish and Wildlife Service and environmentalists.

And, there is contention that the Breaux bill would be "flagrantly in conflict" with the federal Water Pollution Control Act, which is supposed to protect the biological integrity of the nation's waters.

The Corps of Engineers does not need, and probably does not want, complete jurisdiction over all waters in this nation, including farm drainage ditches and small non-navigable streams. Local control will suffice.

But neither is it necessary to overreact to its newfound jurisdiction by setting up this country's valuable wetlands for destruction through private exploration.

[From the Morrison, N.J. Daily Record, May 26, 1976]

Our Opinion

Endangered Species

When many people think of swamps and marshes, they think of foul-smelling, mosquito-infested quagmires that ought to be drained.

But coastal marshes purify the water. Estuaries provide spawning grounds for important commercial shellfish and fish such as striped bass.

Inland swamps are homes for fur-bearing animals and nesting sites for waterfowl and wading birds.

Wetlands capture water during rains, preventing flooding of rivers swollen with run-off water.

Despite their enormous importance, there is legislation pending in Congress that could doom the wetlands.

This ecological nightmare comes to us in the form of an amendment by Rep. John B. Breaux, D-La. Under it, millions of acres of wetlands would lose federal protection, including swamps in the Passaic River Basin.

The amendment seeks to overturn a 1975 court order expanding the Army Corps of Engineers' jurisdiction over dredge and fill operations to "waters of the United States."

This would restrict the Corps to its traditional jurisdiction running to the tidal mean high water mark in coastal regions and the ordinary high water mark in navigable inland lakes, rivers and streams.

Mr. Breaux contends that coastal marshes could best be protected by the Coastal Zone Management Act, which gives state and local governments a voice in adopting regulations. But this act applies only to coastal areas. It doesn't cover inland wetlands.

Many environmentalists, who recognize the potentially disastrous consequences of the Breaux amendment, have lined up in opposition to it.

The National Wildlife Federation estimated Breaux's amendment would exempt up to 90 per cent of the nation's wetlands in the contiguous 48 states from federal regulation.

A high-ranking Interior Department official has painted a bleak picture for the future of the wetlands if the amendment becomes law. Nathaniel P. Reed, assistant secretary for fish, wildlife and parks, says the amendment would make the wetlands "vulnerable to wholesale obliteration through filling and soil disposal."

We share the grave concern Mr. Reed and other environmentalists have voiced. What is really needed is a federal land use policy that would uniformly protect one of our most valuable natural resources. The court order in 1975 giving control of the wetlands to the Army Corps was a step in the right direction. We had hoped that it would be followed up by tough legislation that would protect for all time our wetlands.

Instead Congress is offering us the Breaux Amendment, which is a step backwards, a step toward ruination of an irreplaceable resource.

National Wildlife Federation

1412 16TH ST., N.W., WASHINGTON, D.C. 20036 Phone 202—797-6800

July 20, 1976

Maj. General John W. Morris, Chief
Army Corps of Engineers
Office of the Chief of Engineers
Forrestal Building
Washington, D.C. 20314

Dear General Morris:

The National Wildlife Federation has been asked by Robert Baugher, President of the Turkey Creek Conservation Club (at Lake Wawasee, Indiana) and Jim Rice, Executive Secretary of the Indiana Conservation Council, Inc., to transmit the accompanying petitions directly to you. The signees, approximately 500, reside and/or own property on or surrounding Lake Wawasee, a natural inland lake with approximately 26 miles of shoreline. They wish to alert you to the Lake Wawasee situation while expressing their support of actions of the Corps' Detroit District Office thus far.

At the request of Region V of the Environmental Protection Agency, the Corps' Detroit Office assumed jurisdiction over the discharge of fill materials into the lake and its adjacent wetlands on June 15, 1976. At that time two developers were depositing fill in the lake's wetlands. A previous attempt by the State of Indiana to stop the discharge of fill material failed when a court found state law inadequate to halt the fill activities.

The Corps exercised its authority under regulations promulgated to implement Section 404 of the Federal Water Pollution Control Act of 1972. Though the inland lake falls under Phase II of the regulations, the Corps took action because the discharge may have serious impact on the lake's water quality. The Federal District Court in South Bend, Indiana issued a temporary restraining order to stop the discharge of fill material upon request of U.S. attorneys. Oral arguments on the case are scheduled for July 20.

National Wildlife Federation

The Lake Wawasee case may be the first brought by the Justice Department and the Corps concerning an inland lake. The 500 petitioners fear that the present atmosphere in Washington (i.e., the President's 60-day delay order in the general implementation of Phase II, and House action that supports removing lakes such as Lake Wawasee from dredged and fill material disposal regulation) may impact upon the case. It is the desire and/or legal requirement of the State of Indiana, EPA Region V, and the Detroit Office of the Corps to prevent further discharge of fill material into the lake and its adjacent wetlands. The Federation urges you to actively support their endeavors.

In closing, we would point out that aside from the Chief Executive's questionable authority to delay the general implementation of Phase II of the Section 404 regulations the decision to do so allows the Corps to "continue to take action to stop discharges which will have serious impact on water quality". In our judgment, the Lake Wawasee case clearly represents a need for such action.

Sincerely,

K. C. Hamilton

for LOUIS S. CLAPPER
Director of Conservation

cc: Martin Hoffman, Secretary of the Army
Victor Veysey, Asst. Secretary of the Army
Jim Rice, Indiana Conservation Council, Inc.
Robert Baugher

Enclosure

NEWS RELEASE

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314

FOR IMMEDIATE RELEASE: 25 June 1976

Edward A. Greene
202-693-6346

SECOND PHASE OF FEDERAL REGULATION OF DREDGE AND FILL DISCHARGES BEGINS NEXT WEEK

The U. S. Army Corps of Engineers today confirmed that implementation of the second phase of a three-phase program to protect the quality of the waters of the United States against harmful discharges of dredged or fill materials will proceed as scheduled on July 1, 1976.

Phase II extends the jurisdiction of the Army Engineers to regulate disposal of dredged or fill materials to lakes with more than five surface acres, primary tributaries of inland navigable waters of the U. S., and nearby wetlands.

In today's announcement the Corps of Engineers emphasized that it will continue to use moderation and a reasonable approach in the administration and enforcement of the program. General permits which provide blanket authorization for comparable activities with no significant adverse environmental impact in designated areas will be issued as much as possible to make the program more manageable and practical by reducing the number of permits required.

The first phase began last July 25th when the jurisdiction of the Corps of Engineers in this matter was limited to coastal waters, inland navigable waters of the United States and nearby wetlands. Last July the Corps also announced the schedule for the second and

third phases. The third phase, scheduled to start next year on the first of July, will further expand the jurisdiction of the Corps of Engineers to regulate discharges of dredged or fill material into other waters generally up to the headwaters.

The Corps' permit program is being conducted as directed by the Congress under Section 404 of the Federal Water Pollution Control Act Amendments of 1972 and in accordance with the March 27, 1975, decision of the U. S. District Court for the District of Columbia.

Honorable James L. Oberstar
House of Representatives
Washington, D. C. 20515

Dear Mr. Oberstar:

I am replying to your recent letter concerning Section 404 of P.L. 92-500 in which you asked several questions regarding the Corps' permit program.

You made note of the Committee Report of 7 May 1976 on the Federal Water Pollution Control Act Amendments of 1976 and the cited figures regarding numbers of permits. I feel further clarification and amplification is required on those numbers. Specifically, the discussion on page 22 could lead one to believe that the 404 program would cause a fourfold increase by 1978 in the permit workload of the Corps of Engineers.

Frankly, I just don't believe we are going to see that kind of an effect. Although the Corps has made a strong effort to assess the impact of the program, we are dealing with so many unknowns that a firm project of permits is not possible. Very recently the Corps has compiled their experience data thru the first nine months of FY 76; the direct impact of Section 404 has been 561 additional permit applications deriving from the expanded jurisdiction. The inclosure shows the new Section 404 workload compared to that of Section 10.

I think we should resist legislative courses of action premised on hugh projections of permit applications and be patient in seeing how the actual workload develops. My own belief is that the General Permit concept will reduce the numbers of permits processed substantially.

Although we will be moving into Phase II of the program next month, and this will undoubtedly increase our workload significantly, we also are moving toward the use of General Permits. Although we are still in the formulative stages of General Permits, the Corps has approximately sixty in various stages of active development. Of the 13 issued as of 1 June 1976, most are for construction and are applicable to the Section 10 program. A short status report is inclosed. As we gain additional experience with General Permits we will be expanding into more of the dredge and fill activities applicable to Section 404.

With regard to General Permits, there has been occasional misunderstanding of how the system would work. Basically, the General Permit allows the Corps to consider a great number of permit applications for similar type work at one time. There still is a requirement for a public interest review, an environmental impact assessment, the issuance of a public notice, preparation of a statement of findings, and even public hearings and an environmental impact statement if warranted. But all of this is done once for each General Permit, rather than for each application. This greatly simplifies the administrative procedures and also reduces the inconvenience to the public for work meeting the requirements of the General Permit once it is issued. I am inclosing a copy of a General Permit issued by the Buffalo District. You will note by condition (n) that an application is required and work may not be performed until a determination is made by the District Engineer that the proposed work complies with the terms of the General Permit. This normally would be accomplished with a few days, as opposed to two months for a normal individual permit application. Other General Permits might only require the applicant to notify the District that he is accomplishing work under the General Permit.

Although a simple permit application might be processed in two months, or even less time, the average for all permits is approximately four months. This average includes those permits that are large in scope, are very controversial and where there are significant objections raised. Processing of these type of permits may take two or three years, particularly when an extensive Environmental Impact Statement is prepared and where resolution cannot be achieved at the District level.

I hope that this information is of interest to you. Thank you for your interest in the permit program.

Sincerely,

/s/

Victor V. Veysey
Assistant Secretary of the Army
(Civil Works)

3 Incl
As stated

3 June 1976

Number of Permit Applications

Fiscal Year	Section 10 *	Section 404
1969	7,400	-
1970	7,500	-
1971	8,200	-
1972	9,600	-
1973	12,600	-
1974	13,692	-
1975	14,692	-
1976**	13,049	561

* Includes some applications which also require permits under Section 404 jurisdiction or Section 103 jurisdiction (Ocean Dumping Act)

** First nine months only

1 June 1976

1. PUBLIC NOTICE ISSUED 32

2. DRAFT IN PREPARATION 18

3. GENERAL PERMITS ISSUED ..... 13 now 66

   a. Shore Protection Riprap, Bulkheads, Timber Cribs, etc. 2

   b. Small Boat Docks & Piers (Fill type) 2

   c. Culverts 1

   d. Open Pile Docks (Small Boat) 5

   e. Bridge Construction 1

   f. Mooring Buoys & Stakes 1

   g. Aids to Navigation 1

INFORMATION PAPER

DATA SUPPLIED BY U.S. ARMY CORPS OF ENGINEERS

SUBJECT: Public Response to 25 July 1975 Federal Register (Section 404, FWPCA)

FACTS:

1. During the 134 days that followed publication of the 25 July 1975 Federal Register, the Corps actively sought public input to its Interim Final Section 404 Regulation. Four (4) nationally sponsored Public Hearings and 243 local Public Meetings were conducted. The public responded by providing the Corps 2084 letters and oral statements for the Official Section 404 Record which closed on 5 December 1975.

2. Contained within the 2084 publicly submitted letters were 2816 individual suggested changes to the interim final 404 regulation. Each suggestion has adminstratively been matched to its applicable paragraph within the regulation to produce thirteen volumes of cataloged public response.

3. Public response to Section 404 was approximately split: 50% favoring, 43% disapproving and 7% not stating an opinion. Inclosed is the final summary of the 2084 public comments shown by 23 categories of respondents. These figures, of course, represent public response, not total public opinion. Quite obviously, various special interests, both favoring and disapproving the regulation, encouraged their membership to comment.

TOTAL PUBLIC RESPONSE TO SEC. 404, FWPCA, JULY 25, 1975 INTERIM FINAL REGULATION

Categories of respondents	Favors Federal action			No position stated			Disapproves Federal action			Subtotals		Grand total
	Written	Oral	Subtotal	Written	Oral	Subtotal	Written	Oral	Subtotal	Written	Oral	
1. Private individual (nonfarmer)	663	23	686	41	2	43	129	8	137	833	33	566
2. Private individual (farmer, rancher)	5	0	5	0	0	0	36	0	36	41	0	41
3. U.S. Senator	1	0	1	0	0	0	4	0	4	5	0	5
4. U.S. Congressman	1	1	2	1	1	2	3	2	10	10	4	14
5. Federal agency	2	4	6	3	0	3	4	0	4	0	4	13
6. Corps field office	0	0	0	6	0	6	0	0	0	6	0	6
7. Federal, other	1	1	2	3	0	3	2	0	2	6	1	7
8. Governor	2	0	2	0	0	0	17	5	22	19	5	24
9. State agency	24	2	26	7	2	9	61	22	83	92	26	118
10. Elected State official	1	0	1	2	2	4	14	6	20	17	8	25
11. State, other	3	0	3	7	1	8	6	0	8	16	1	17
12. City or county official	6	1	7	6	0	8	55	4	39	49	5	54
13. Port authority	6	0	6	1	0	1	1	2	3	8	2	10
14. Conservation district	24	2	26	4	1	5	101	19	129	120	22	151
15. Local government, other	9	0	9	3	0	3	16	5	51	58	5	63
16. Trade association	6	0	6	5	4	9	54	21	75	65	25	90
17. Environmental group	125	26	152	6	1	7	7	2	9	139	29	168
18. Chamber of commerce	2	0	2	0	0	0	7	0	7	0	0	9
19. Special interest group	61	6	67	9	1	10	69	6	75	139	13	152
20. Large corporation	10	0	10	16	1	17	95	15	110	121	16	137
21. Small business	13	0	13	5	1	6	60	2	62	78	3	81
22. Law firm	6	0	6	6	0	6	7	0	7	19	0	19
23. Petition	2	0	2	1	0	1	11	0	11	14	0	14
Total	974	66	1,040	134	17	151	774	119	893	1,882	202	2,084
Percentage			49.9			7.3			42.8			100.0

Note.—This summary includes all testimony from public hearings and oral testimony from public meetings where it was specifically stated that it would become a part of the official public response record.

Senator RANDOLPH. The final witness is Bruce Hawley of the American Farm Bureau Federation.

STATEMENT OF BRUCE HAWLEY, ASSISTANT DIRECTOR, NATIONAL AFFAIRS, NATIONAL FARM BUREAU

Mr. HAWLEY. Thank you, Mr. Chairman.

We appreciate the opportunity to present Farm Bureau's views on section 404 of the Federal Water Pollution Control Act. Farm Bureau is the Nation's largest general farm organization with 2½ million member families in over 2,800 counties in 49 States and Puerto Rico.

Farmers and ranchers have been, and continue to be, concerned about the expanded regulatory program that has been developed by the Corps of Engineers under section 404 as many of the requirements of this program directly impact them.

The Corps' expanded program, initiated July 25, 1975, is a far-reaching and comprehensive regulatory program which, in our opinion, grossly distorts the purposes of section 404.

As you know, the objective of the Federal Water Pollution Control Act is to restore and maintain the integrity of the Nation's waters. However, section 404 of that act, as described by former Senator Allen Ellender,

> . . . simply retains the authority of the Secretary of the Army to issue permits for the disposal of dredged materials. This is essential since the Secretary of the Army is responsible for maintaining and improving the navigable waters of the United States.

Section 404 was intended as a narrow exception to the overall pollution abatement program of Public Law 92–500 for the express purposes of continuing to allow for the maintenance and improvement of channels of navigation for the purpose of transporting interstate and foreign commerce.

At the time the Federal Water Pollution Control Act was passed, the Corps of Engineers was regulating about 50,000 river centerline miles and 50,000 lake shoreline miles under its permit program.

The Corps' expanded regulatory program, when fully implemented, will extend the Corps' jurisdiction over 3.5 million river centerline miles and 4.7 million lake shoreline miles, according to the Corps' estimates. These expansions represent 70- and 90-fold increases in the jurisdiction of the Corps' regulatory program.

We believe this expanded Corps' regulatory program exceeds the congressional authorization. We have mentioned Senator Ellender's comments. We note that, when suit was filed against the Corps, the Corps of Engineers legal department, assisted by the Justice Department, opposed such a regulatory expansion.

We note that Congress never authorized funding or manpower increases for the Corps to administer such an expansion of regulatory capability although the Corps estimated additional requirements of 1,750 employees and $5.3 million.

Such an expanded program is unnecessary. The Department of Agriculture estimates that continued implementation of normal conservation programs, as mandated by Congress, would require 60,000 additional permits per year under the Corps' expanded regulatory program.

These permits cost both time and money. It seems counterproductive to the purposes of the Federal Water Pollution Control Act that each Department of Agriculture conservation program activity should be delayed from 6 months to 2 years while a Corps permit is being processed and issued.

Throughout that period the very pollution problem that conservation programs should have abated would be continued unchecked in the name of complying with bureaucratic regulations.

The charge is made that if the Corps does not protect all waterways nothing will be done. Yet there are many and varied Federal programs specifically designed to protect our environment. These include programs authorized by the Coastal Zone Management Act, the Fish and Wildlife Act of 1956, the Migratory Marine Game-Fish Act, the National Environmental Policy Act, and the Federal Water Pollution Control Act.

The observation was made earlier that people come here simply looking to get out from under regulations. Agriculture is totally dependent upon environment of both the land and the water.

We do not seek an exemption from regulation. We seek reasonable regulation. We remind the committee that section 208 of the law talks specifically about "controlling to the extent feasible." And "to the extent feasible" means we can be reasonable, which I think is our objective.

If it is the sense of Congress that additional legislation should be enacted in this area, hearings should be held, testimony from interested parties received, and a single coordinated legislative effort initiated, we do not believe that the Federal court system ought to be empowered to write such laws by default of the Congress.

Section 404, as defined and implemented by the Corps regulations, places a substantial cloud over the property rights of private landowners. There are 240 million acres of privately owned agricultural land having "excess water" problems, and no one knows how much of that land is included in the Corps court-ordered overregulation.

Last year over 55,000 "earth moving" activities, such as dike construction, fishstream improvement, floodwater diversion, ponds, pumping plants for water control, and streambank protection, were implemented.

Let me interrupt myself for a moment. There has been a lot of discussion this evening about ponds and what ponds are subject to regulation. I think a misconception has happened. I would like to attempt to clarify it.

The existing regulations of the Corps talk about interstate lakes utilized in the production of agricultural commodities sold and transported in interstate commerce. They define lakes:

> Lakes means natural bodies of water greater than five acres in surface and all bodies of standing water created by the impoundment of navigable waters identified in paragraphs (a) through (h).
>
> Natural bodies of five acres or more are subject to Corps regulation and all bodies impounded in waters with a flow of 5 cubic feet per second or greater, or in waters defined as wetlands—that is essentially all farm stock ponds—"are included and subject to Corps regulations."

As long as the Corps regulatory authority is allowed to extend to the back fields of his farm, a farmer faces the very real prospect of being denied the productive use of his land—without compensation and without recourse.

As an example of the regulations now imposed on farmers and ranchers, we cite the case of a potato farmer in the State of Washington, who decided to take some desertland which he owned, couple it with some water rights which he also owned, and through the use of irrigation to turn that desertland into food.

Hank Thompson, working with experts, developed a plan for completing this irrigation project. Upon completion of that plan, he was required to obtain 47 permits and to spend $87,000 of his own money to comply with insatiable bureaucratic appetites at the various levels of government in this country.

We do not believe that the Congress of the United States ever intended to tell Hank Thompson that he needs still another permit to do that which 47 permits already have authorized him to do. We do not believe that Congress intended to requrire that farmers pay $100 per permit for each of tens of thousands of permits per year to comply with section 404. We do not believe that the Congress ever intended section 404 to infringe upon the property rights of private landowners.

We note that the House of Representatives, by a 2-to-1 margin, has said that it did not intend the Corps to be in every farmer's field. We hope that the Senate will concur.

Thank you.

The National Grange, the American National Cattlemen's Association, the National Association of Conservation Districts, and the National Water Resources Association have requested that I mention their endorsement of this statement.

Thank you.

Senator RANDOLPH. Thank you very much, Mr. Hawley.

Is there any comment that you have, Senator Burdick?

Senator BURDICK. I want to thank the gentleman for his testimony. It has been proposed that language which indicates that normal farming operations should not be covered by the act.

You mentioned the irrigation system. Were the parties required to get their permits, because that was not normal farming operations?

Mr. HAWLEY. The Corps has not clearly defined what normal farming practices are. They say "activities such as plowing, planting, and harvesting."

As you know, a normal farming activity also includes such things as streambank protection, drainage ditches, construction of new drainage ditches, a laying of new tiles, impounding of waters for the express purpose of having something for livestock to drink later in the summer, and so on.

As near as we have been able to determine, these activities are not exempted by the Corps regulations.

Senator BURDICK. Nor do you think there is some question whether that falls within the so-called definition of ordinary farming operations?

Mr. HAWLEY. As defined by the Corps, yes, sir, I would.

Senator BURDICK. Thank you, Mr. Chairman.

Senator RANDOLPH. Thank you very much.

Mr. CLAPPER. If I am not mistaken, sir, I think the Cleveland-Harsha-Hart bill would specifically exempt irrigation practices.

Senator RANDOLPH. Thank you, Mr. Clapper.

Mr. Speth?

Mr. SPETH. Yes, that is correct; it would.

Senator, one thing just to emphasize—our concern, and I don't think it is the concern of anybody here, is not with these extremely small activities carried on in a routine way on farms and in ranches.

Our concern is with big things, such as the conservation of hundreds and thousands of acres along the Mississippi River, for example, the conversion of swamplands that are a vital part of the aquatic ecosystem to other types of uses, and things like this.

I think former Congressman Veysey mentioned that last night. The rate of destruction of the wetlands in lower Mississippi is phenomenal.

Senator RANDOLPH. Earlier tonight you said that we had to have the integrity of the natural waters. Is that correct?

Mr. SPETH. Yes.

Senator RANDOLPH. I think we can all agree. I appreciate the nine witnesses who testified tonight. We will keep the record open for further statements until Friday evening this week. Additional statements will be received until then. Is there some further comment?

Mr. RITCHIE. In listening to the testimony here this evening, Mr. Chairman, it has become quite obvious to me—being from West Virginia, where we are not within 400 or 500 miles of wetlands—that there are concerns for wetlands. I can understand the concern over the wetlands very much.

But I have tried to keep track of the number of permits that were estimated maybe that we would have. I am sure we don't have anywhere near the volume that will occur overall, but 165,000 new permits in agriculture, forestry, and highways, plus the mining permits, seems to me to create a tremendous workload for whoever does it.

The issuance of a Corps of Engineers permit, if I understand, will have to take place for the placing of a pipe in any stream in our State.

We ran into it already in our State where we had an emergency bridge repair job that had to have a pipe in the creek, to put a road across it to keep the traffic moving until we repaired the bridge, and we were ordered to cease and desist by the Corps because we didn't have a permit to do that. Although the Corps' regulations exempt emergency repairs, this temporary crossing was at a different location before the deficient existing bridge collapsed.

Senator RANDOLPH. What stream was that?

Mr. RITCHIE. It was in the Guiandot River region. But it is, I think, an additional permit requirement that is covered sufficiently elsewhere. I can see a tremendous problem with just the volume of permits. They cannot grant these permits unless they look at the site.

If they don't do that, they are not doing their job and that is what we all want them to do.

Just our department in the State that I live in would require a volume someplace in the 5,000 to 10,000 area. And it just seems to me like a tremendous problem in the issue of the volume of the permits, if they are issued as they should be by an onsite inspection.

Senator BURDICK. Do you think section 404 triggers the necessity of getting NEPA clearance too?

Mr. RITCHIE. I think it is a good question. I think, yes, sir, it is a NEPA question. I think it would.

Senator BURDICK. That would add an additional layer of administration.

Mr. RITCHIE. Yes; the Senator brought up a question about the bridge across the Rio Grande River. We have the same problem with the bridges we are building across the High River.

The Coast Guard is the lead agency for permission to build the structure. Now we have to go back to the Corps and also get a permit for the same structure under section 404.

Senator RANDOLPH. Any comment?

Mr. BARTHAUER. Senator, I think there is another aspect of this that we should look at closely too. The gentleman here has pointed out that the Corps really should look at every situation. I think all of us have to be very conservative in approaching the Corps and getting clearance with the Corps.

We wouldn't be allowed to use very much judgment in terms of our activities. The reason for that would be that if we carried out an activity which we thought did not fall within the Corps' jurisdiction and the Corps concluded otherwise, that triggers a mechanism whereby a cease-and-desist order is immediately issued.

Until all of the legal aspects are cleared up with respect to that so-called violation, a permit cannot be even processed for that particular application. In other words, the Corps cannot do any further work on a permit application for that particular activity. This is in the the regulations, if you look at them carefully.

Senator RANDOLPH. Is there further comment?

Mr. HAWLEY. It would seem, as I have listened to the other witnesses tonight, that there is a tremendous variety in the nature of activities that are going to be subject to permit requirements.

I would hope the committee would not attempt to identify each of those specific activities and exclude them, but say, "However, we retain authority," but would rather realistically look at the areas subject to regulation.

It seems there is very little rationale for retaining authority to regulate if we are going to exclude all activities that happen within that retained authority area.

There has been tremendous debate about what areas are subject to regulations tonight and in the past, and I am sure will continue in the future until such time as Congress clearly addresses that area, both with respect to section 404 and other areas as they become obvious.

Senator RANDOLPH. Thank you very much.

We appreciate the testimony of our witnesses tonight. We are also appreciative of our audience, because these people are intensely interested.

And in the spirit of this committee in always attempting to provide a forum for an exchange of viewpoints, the hearings last night and tonight, provided opportunities for those of you who testified and for the members who questioned you and made comments to add to our knowledge of the subject so that we can come to grips with these problems as quickly as possible.

The 14 formal witnesses who have been heard last night and tonight have certainly helped us.

I am told that the correspondence is constantly rising on this subject. We are not going to delay on the matter but we are not going to be rushed into a quick decision.

A pleasant night to you all.

[Whereupon, at 10 p.m., the committee recessed, to reconvene subject to the call of the Chair.]

76-161 O—76——36

Statements and Communications Supplied for the Record

Testimony of Senator James Abourezk

Mr. Chairman: I am very pleased to have this opportunity to appear before you today to testify on Section 404 of the Federal Water Pollution Control Act. In particular, I am here to support the enactment of S. 3663, which I have co-sponsored. This bill represents an exceptionally good balance between the need to protect our nation's wetlands and to insure that in the process farmers, ranchers and foresters are not overwhelmed with needless, burdensome, and unproductive federal regulations.

I was one of many Senators who reacted strongly to the issuance of proposed federal regulations over dredge and fill operations. Initially, it appeared to me that these new regulations would be disastrous for farmers; that they would subject normal farming operations to extremely time-consuming and burdensome procedures. In part, I must say, this impression was created by the Corps' own misleading press release. In order to prevent what I saw as the greater evil of overregulation, I cosponsored a bill offered by Senator Dole which would have deleted much of the Corps' authority to protect the wetlands. I can no longer support that bill.

Now that I have had time to reflect on the situation, and to consider other alternatives, I find that there is a much better way to solve the problem, namely, S. 3663. This bill would speak directly to the concerns of farmers and other agricultural producers by simply exempting most of their normal activities, and requiring only a general permit for most of the remainder. Only in rare extreme cases would an individual permit be required. The farmer, in other words, would not have the burden of preserving the environment thrust onto his shoulders. This point cannot be stressed too strongly, especially given all the confusion that has existed on this matter.

The real merit of this approach is that it does not seek to solve one problem by avoiding another: simply exempting most wetlands from Corps jurisdiction would mean, of course, that most farmers would not have to comply with federal regulations, but it would also not protect the wetlands, which have been disappearing at an alarming rate. Wetlands provide vital environmental benefits, including the provision of wildlife habitat, the purification of polluted waters, the recharging of acquifers, and other vital functions. Millions of acres have disappeared in recent years, and once the wetlands are gone, they are gone forever. To reduce federal authority over the wetlands to navigable waters, or navigable waters and their tributaries, makes neither good ecological nor legal sense. Federal programs are required where national interests are at stake, and clearly the benefits provided by wetlands are national, not statewide, in scope. While we want to provide every opportunity for the state to act on the problems first, it is undeniably true that some states do not live up to this responsibility, and that when they do not, we, as a nation, must act to preserve our interests.

In conclusion, then, S. 3663 will provide wetlands protection, but will not do it at the excessive cost of overregulation of our farmers. It is understandable why this approach has received such broad support from farm and environmental groups. It deserves the support of the Congress as well.

Statement by Senator Dewey F. Bartlett

Mr. Chairman: The Public Works Committee, and you particularly, are to be congratulated for moving forward with these oversight hearings on the effects of Section 404 of the Water Pollution Control Act, and more particularly the effect of the Act's expanded application under federal court decision.

The House has acted on this matter, and it is now the Senate's responsibility to expedite the consideration of the several bills now in the Public Works Committee which seek to clarify the position of Congress on what waters are to be federally controlled under the Water Pollution Control Act.

My own bill, S. 3224, provides specific exemptions from federal control for bodies of water owned and controlled by either state and local governments or private citizens.

These oversight hearings should clarify the problems that have been created, and I hope that the hearings will focus the Senate's attention on the need to adopt legislation before the end of this session. It is imperative that Congress clearly express its intent so that the Corps and other federal agencies will have clear and specific guidelines within which to operate. Also, it is necessary that Congress define the parameters of the Water Pollution Control Act for federal courts, thereby precluding any opportunity for the court to misinterpret the intention of Congress.

My concern is the implication of this section if the court's interpretation is allowed to stand. The decision provides that the Corps should regulate all bodies of water, even if there is no evidence that the particular body would ever be navigable.

Not only is this a staggering expansion of federal authority, not to mention the staffing that would be required, but it is another major extension of federal interference into private lives, private business, and local control.

The Corps has published its "interim final" regulations requiring a "general permit." This seems to lead to the acceptance of the premise that all agricultural activities are "point sources" of pollution. Under P.L. 92-500, the Water Pollution Control Act, Congress clearly stated that only certain activities would be considered "point sources" requiring treatment. The cost of this permit is $100, but this expense is misleading because it does not reflect the cost to the farmer in time, effort, and delay to secure the permit.

An analysis by several farm organizations shows that the following steps would be necessary to meet the requirements being established under Section 404:

1. *Permit application.*—The application will include a complete description of proposed activities; location; purpose; use; schedules; names and addresses of adjoining property owners; all other federal, state, and local agency approvals required; the type, source, composition, quality and transportation method of materials involved; and other information requested by the District Engineer.

2. *Public notice, comments and hearing.*—Notice must be given by the District Engineer of the application allowing opportunities for and consideration of public comments to include public hearings.

3. *Section 401 certification.*—The applicant must obtain certification from the state, when an activity would discharge into a navigable water, that the discharge will comply with the acceptable effluent limitations and standards for that particular watershed.

4. *Coastal zone management certification.*—An applicant in a coastal zone area must obtain a certification from his respective state where the activity would affect land or water in the coastal zone.

5. *Environmental impact statement.*—The District Engineer must determine whether an EIS is necessary for the particular permit application, and if necessary, must complete prior to the hearing on the application.

6. *Corps decisionmaking.*—The Corps must apply a complex and lengthy series of general and specific policies including factors and criteria mentioned in their own regulations, those of the Environmental Protection Agency and policies under numerous other statutes. The Corps must also engage in substantial interagency consultation.

7. *EPA Review.*—The EPA must consult with the Corps of Engineers and has final veto power if it determines the discharge will have an unacceptable adverse effect.

These requirements are in addition to applicable state and local requirements, which include compliance with state environmental policy acts, state forest acts, and state and local land use laws. Also, there are other federal requirements from specific agencies such as the Department of Agriculture which already must be complied with. It has been estimated by certain agricultural organizations that Section 404 permit requirements would take between six and twenty-four months for completion, depending on the specific project undertaken by the farmer.

This type of delay can be ill afforded by the agricultural community or any other type of business. A decision is made on the basis of a number of tangible and intangible considerations but particularly depends on immediate need, anticipated need, availability of capital, and present costs. Lengthy delays can do nothing but detrimentally affect the business planning that has become increasingly imperative in complex agribusiness.

The U.S. Department of Agriculture has estimated that 60,000 additional permits per year would be required if the normal conservation practices now being carried on by USDA and farmers are continued. Each of these conservation practices would be delayed, thus perpetuating the environmental problem that the "practice" is seeking to solve.

1. If the court decision to expand the jurisdiction of the Corps to all bodies of water, both public and private, in excess of five acres is an accurate reflection of legislative intent, then it should stand.

However, if the Congress should decide that it was not their intention to extend such jurisdiction, then it should immediately act to correct this error, by adopting legislation such as I have introduced.

2. If Congress is serious about eliminating unnecessary paperwork, redtape, and bureaucratic interference, this is the specific place to begin.

The problem is apparent, and these hearings stand to draw attention to the need for remedial legislation. This legislation is already in the hands of the Committee, and I would again like to congratulate Senator Randolph for this effort to move the Senate toward language that will specifically express the original congressional intent. I urge the rest of the Public Works Committee to consider the presentations made at these oversight hearings and report a bill such as mine to the floor of the Senate before the end of this session.

STATEMENT BY SENATOR LLOYD BENTSEN

Mr. BENTSEN. Mr. Chairman, I want to thank you for calling these hearings to examine the problems which can be expected with implementation of the Corps of Engineers' dredge and fill permit program under Section 404 of the Federal Water Pollution Control Act of 1972.

Mr. Chairman, I do not believe I have to tell you or this Committee of the degree of concern or the extent of the opposition to the Corps' proposed regulations. Since the courts ordered the Corps to expand its regulatory activity to include dredge and fill operations on nearly every body of water in this country, I have been contacted by scores of farm organizations, forest management officials, soil conservation district managers, water resources boards, our state water authority and private landowners. They have expressed alarm over the sweeping nature of the proposed regulations, the long delays to be anticipated with their implementation, and broad intrusion of federal involvement in what traditionally have been state and local decisions. I believe we have a responsibility to respond to that concern, to examine this issue, and find a workable solution to the problem. I am hopeful that these hearings represent the first step toward doing just that.

The heart of this problem, as I see it, Mr. Chairman, is obviously with the definition of "navigable waters". We must clarify which dredge and fill activities are to be regulated under Section 404. We cannot permit this matter to be left to the courts or to the regulatory body itself. We have the responsibility to clarify what the Congress intends by Section 404 of the Act.

After meeting with many of my constituents and carefully reviewing this matter, I have concluded that the currently proposed set of regulations, when fully implemented, are simply unacceptable. They will constitute only one more example of bureaucratic overkill; they will result in a tremendous growth of bureaucratic redtape; and they will actually be counterproductive to our goal of protecting this nation's wetlands.

We must acknowledge the mounting resentment of the American people to what they perceive as an ever-growing intrusion of the federal government into their lives. We can all cite examples of good programs which have been overadministered, to the overall detriment of Congress' good intentions. Implementation of the current 404 regulations would be only one more example.

We have already had several experiences in Texas which I think should be brought to the Committee's attention. One is the Lake Limestone water conservation and water supply project under construction by the Brazos River Authority, a governmental agency of the State of Texas. After having received all of the required federal and state approvals, permits, and licenses, the Authority began construction of this project on July 25, 1975. The Authority determined, however, that it would probably need a Section 404 permit under the Corps' Phase II regulations. It filed an application in October 1975, and the Corps then circulated it to other federal agencies for their review and comment. In March 1976, the U.S.

Fish and Wildlife Service recommended that the Corps deny the permit unless the Brazos River Authority purchased 15,800 acres of land (in addition to the 15,000 acres of land required for the dam and lake) and turn the land over to the Texas Parks and Wildlife Department for management as a wildlife preserve. The dam and lake project, which is needed to meet the water requirements of the lower Brazos Basin and coastal areas downstream now faces potentially serious delays and possible complete stoppage because of the current 404 program for a reason which has nothing to do with water pollution control.

Another example is equally instructful, I believe. A small Texas city needing a new sanitary sewer line recently applied for a Section 404 permit for each of five crossings by the sewer line over a small creek, winding through the city. Some indication of the amount of paper, time and effort involved in preparation of the application is given by the fact that the public notice alone contained nine pages, including plans and profiles, names of adjacent property owners and the amount of earth (a total of 284.5 cubic yards for all the crossings) to be excavated at each crossing. Hundreds of copies of this public notice were distributed by the Corps, which invites review and comments by numerous federal, state and local governmental agencies and by private individuals, companies, organizations and associations of all kinds who might want to comment. Think if this example is to be replicated every time a sewer system addition is proposed in the cities and towns across this country.

If Phase II were to be implemented September 1, permits will be required for dredge and fill operations on tributaries of navigable waterways and on inland "lakes" of five acres or more. In the flat topography of the west, many stock tanks and farm ponds cover 5 acres or more when there's rain. Dredge and fill operations on them could well be regulated under Phase II, and on July 1st of next year, the program will be extended to an even larger number of inland waters.

A very substantial probability exists that thousands of well-intentioned, law-abiding citizens simply will not know that they must apply for a permit from the Army to carry out certain heretofore routine activities in areas considerably removed from what we normally think of as "navigable waters". And failure to apply for permits can subject a citizen to a substantial fine.

Given the Congress' recent experience with a number of regulatory agencies, I do not believe we can be satisfied with assurances that certain bodies of water—for example, farm ponds—will be exempted from the 404 regulations. I urge that we restrict this program to a well-defined, manageable jurisdiction and that we define precisely those waters which we want to see protected.

If we do not, we can expect a mushrooming of permit requirements and the delays and frustrations which will accompany them. In fiscal year 1974, the Corps issued a total of 13,000 permits, 2,900 of them under Section 404. In fiscal year 1976, the numbers were up to 20,000 and 9,200, respectively. If Phase III as now proposed were ever to be implemented, the Corps estimates that it will be processing 30,000 to 50,000 permit applications annually, the vast majority of which will be filed under Section 404. During the last four years, the number of persons needed to do this processing work has risen from 186 to 613, a more than threefold increase. The Corps has estimated that to meet the requirements of a fully implemented Section 404 program, it will need about 1,000 persons. Given the projected number of applications, I think that may well be a reasonable estimate. And the Corps estimates a more than fourfold increase in expense, up from $8.1 million in permit processing costs in 1972 to an estimated $35.8 million annually when Phase III is implemented.

One consequence should be readily apparent: with the rapid escalation of the number of activities requiring permits, the quality of the review must understandably decline. By trying to do too much, we will be doing too little well, and the result will be an irate citizenry and wetlands which are not being adequately protected.

The House of Representatives has already indicated its wish to reduce the scope of the 404 program. On June 4th, it approved a floor amendment offered by my colleague from Texas, Jim Wright. The Wright amendment would focus the program to protect waters which the Corps has historically defined as navigable, to coastal wetlands, and to those wetlands lying adjacent and contiguous to navigable streams. The Wright amendment would explicitly exempt normal farming operations and would allow states with the desire and capability to administer the

permit program within their own borders. It would also establish a mechanism for the states and the federal government to identify and agree upon any additional wetlands of sufficient ecological importance to warrant dredge and fill permits.

I believe the real merit of the Wright approach is the focusing of the effort on those waters and wetlands which we have the first obligation to protect. State authority to administer the program would seem highly advisable and exempting normal farm operations would also seem highly desirable.

Mr. Chairman, let me thank you again for calling these hearings, and let me express my hope that they will be soon followed by a conference with the House on the measure it has already passed.

STATEMENT OF SENATOR CLIFF HANSEN

Mr. Chairman: I am pleased to be before this Committee today to offer my views and those of my constituents on Section 404 of the Federal Water Pollution Control Act. This Section was, as you know, adopted in 1972 to establish a permit program administered by the Corps of Engineers to regulate the dumping of dredged and fill material into navigable waters.

Subsequent court decisions have broadened the Corps' authority to the extent that it now has jurisdiction over almost all waters of the United States. Under this new definition of navigable waters, the Corps' regulatory authority has been expanded almost beyond comprehension. According to some of its own estimates, the Corps' jurisdiction on rivers will expand from the present 50,000 miles to over 3.5 million miles; for lake shorelines, from 50,000 miles to 4.7 million miles.

My major concern, and the concern of many of the people in Wyoming and the West, is the impact of such an expanded program on agriculture. Many everyday farming and ranching activities, including those which are conservation practices to reduce soil erosion and improve water quality, will now require Federal permits.

Under the present interpretation of Section 404, farmers and ranchers would need permits from the Corps of Engineers for, among other things, construction and maintenance of stockwater and irrigation ponds, cleaning irrigation laterals and developing irrigation and drainage systems. Millions of agricultural landowners will be subject to burdensome, costly and time-consuming procedural permit requirements, including public hearings, public interest reviews and environmental impact statements.

Recently, there have been several significant developments regarding Section 404. The State of Wyoming has just initiated proceedings against the Army Corps of Engineers, attacking the regulations promulgated pursuant to Section 404. The basic objection set forth in the lawsuit is that the regulations constitute an onerous and unnecessary regulatory burden upon the State of Wyoming and its citizens by extending the definition of navigable waters far beyond the traditional concept associated with that term.

In addition, on June 10 I joined with eighteen of my colleagues in requesting the President to delay implementation of Section 404 regulations which were to become effective July 1. President Ford subsequently directed the Secretary of the Army to authorize a 60-day delay to give Congress time to examine this issue.

Of great importance to this Committee, Mr. Chairman, is, of course, the legislation that is presently before Congress. At this time, the most important piece of legislation dealing with this problem is S. 2710. This bill, which includes the Wright amendment, is significant in that it does define navigable waters and includes contiguous or adjacent wetlands in that definition. It exempts, however, agricultural and silvicultural operations, and importantly, the repair, replacement and maintenance of existing structures.

Mr. Chairman, I believe this to be a sensible solution to the problem. Because contiguous and adjacent wetlands are included in the definition of navigable waters; because this deals only with the permit authority of the Corps of Engineers; because it deals only with dredge and fill operations and not other discharge of pollutants into navigable waters; and because it is intended to be a limited exemption from Section 404 requirements, I believe the Wright amendment is in the spirit of the Water Pollution Control Act of 1972.

I would urge, therefore, that this Committee report favorably on S. 2710, as it now reads.

U.S. SENATE,
COMMITTEE ON COMMERCE,
Washington, D.C., July 27, 1976.

Hon. JENNINGS RANDOLPH, *Chairman*,
Hon. HOWARD H. BAKER, Jr., *Ranking Minority Member*,
Committee on Public Works, U.S. Senate,
Washington, D.C.

DEAR SENATORS RANDOLPH AND BAKER: The House amendment to S. 2710 contains a number of substantive changes to the Federal Water Pollution Control Act. We would like to bring to your attention one particular provision which is of considerable concern as it relates to matters within the jurisdiction of the Committee on Commerce. We refer to the potential effects of section 16 on the protection of the nation's wetlands.

Many of the programs which have been developed by the Commerce Committee to preserve the wetlands of this country depend in large measure on Federal agencies properly protecting these areas where they discharge their duties. For example, the Fish and Wildlife Coordination Act requires the Corps of Engineers and other federal agencies to coordinate their water projects with the U.S. Fish and Wildlife Service and to mitigate damages to fish and wildlife and their habitat which result from these activities. In addition, section 7 of the Endangered Species Act of 1973 requires Federal agencies, in carrying out their duties, to protect endangered species and their habitat. Both requirements directly affect the Corps of Engineers' program under section 404 of the Federal Water Pollution Control Act.

As you know, the current Corps of Engineers' permitting authority provides broad authority to protect wetlands throughout the country from physical destruction and pollution contamination associated with dredge and fill operations. Section 16 of the House amendment, however, would restrict the Corps' authority to only those waters which are presently used or are susceptible to use for transportation of interstate and foreign commerce. This would clearly undermine the effectiveness of the aforementioned laws. The "Wright Amendment" on the House floor improved the original language as reported by the Committee to provide protection for wetlands adjacent to navigable waters. Nonetheless, approximately 80% of the wetlands which are protected under existing law by the Corps' permitting authority for dredge and fill discharge would lose that protection under the House amendment. Included would be the vast system of marshes, potholes, and other waterfowl nesting areas of the prairies states and elsewhere. At a time when the Fish and Wildlife Service under its accelerated wetlands acquisition program is in a race with development interests to preserve the nation's valuable waterfowl nesting areas through purchase and acquisition, this makes little sense.

Other problems exist with section 16 of the House amendment. For example, the general permit authority which authorizes numerous discharges of a specified type or category lacks criteria as to how this authority is to be exercised. In addition, the authority to delegate the permitting authority concerning adjacent wetlands to the States contains no standards or criteria for State program adequacy, for input from other affected States or interested parties, or for other measures to ensure that the permitting authority will be carried out appropriately.

Some provisions of the amendment appear not to have a negative impact on wetlands programs and would eliminate some problems that may exist under the 404 program. These include the general permitting authority (with appropriate guidelines) and the elimination of problems associated with permits for agricultural and construction purposes. It does, however, seem inappropriate to alter other provisions of the section 404 program at this point. We urge you to resist any such efforts.

It is our understanding that the Senate Committee on Public Works will be taking testimony on this issue during hearings today and tomorrow (July 27 and 28). We urge that the views set forth in this letter be taken into consideration at that time.

With best wishes.

Sincerely,

PHILIP A. HART,
Chairman,
Subcommittee on the Environment.
FRANK E. MOSS,
Vice Chairman,
Subcommittee on the Environment.
LOWELL P. WEICKER, Jr.,
Ranking Minority Member,
Subcommittee on the Environment.

STATEMENT OF SENATOR RUSSELL B. LONG

Mr. Chairman and members of the Public Works Committee, I thank you for the opportunity to express my views on needed modifications and clarification of Section 404 of the Water Pollution Control Act.

Since 1972, when we passed amendments to the Water Pollution Control Act, we have had four years to test the adequacy or inadequacy of this act. During this time, federal agencies have written, revised, revoked, and promulgated new rules and regulations. The courts have interpreted and reinterpreted the law, and as far as I am concerned, they have wrongly interpreted, among other things, "navigable waters" to include almost everything that is wet.

Gentlemen, when we passed this law it was not, in my judgement, our intent for some of these provisions to be as all-encompassing as they now are after court interpretation. I refer particularly to Section 404. I do not believe that the proposed expansion of authority was the intent of Congress when we passed the Federal Water Pollution Control Act Amendments of 1972. This new authority is neither practical nor realistic considering the economic framework which we face in this country today. Rather, it is an ill-conceived, judge-made extension of the law reminiscent of so many overzealous and misdirected environmental causes on which the Congress has legislated in broad terms and on which the bureaucracy has expanded far beyond the Congressional intent.

If Congress in 1972 had been asked to vote on the Section 404 regulations as they have since been interpreted by the courts, would they have passed? In my opinion, the answer to that question is an emphatic NO.

On June 10, thirty members of this Senate, including myself and some of you, wrote a letter to the President urging him to delay implementation of Phase II of the Corps of Engineers' regulations which were scheduled to go into effect on July 1. The President heeded our request and delayed implementation of Phase II for 60 days, to give us time to evaluate Section 404 after four years of experience and interpretation, and to enact needed amendments.

Almost half of these 60 days have passed. We must now take action or many members of the Senate and the House, who up until now have had few inquiries about 404 from their constituents, will find themselves in the unenviable position that I and my colleague from Louisiana, Senator Johnston, have found ourselves in since the current regulations went into effect. You will discover very quickly that your constituents do not want their rights to use their property tampered with in unnecessary and meaningless ways as they will be when Phase II goes into effect.

All states would be seriously affected by Phase II. However, my state would be devastated because of its unique position at the foot of the national watershed. Louisiana has thousands of square miles of land protected by levees and vast areas subject to periodic inundation. The entire state and all of the activities therein are virtually at water's edge, which means that a great many programs and endeavors would be severely disrupted because of the lengthy permit procedures and environmental studies. It is entirely possible and indeed likely that progress in Louisiana would come to a grinding halt.

As most of you already know, I come from the hills of North Louisiana. Practically all of the permits issued by the Corps in Louisiana have been in the coastal wetlands. Since July 1, 1975, citizens of Louisiana have had to apply for almost 2,000 permits from the Corps. Of these 2,000, the only ones not in the coastal wetlands were in actual navigable waterways such as the Mississippi, Red, and Ouachita Rivers.

If Phase II goes into effect, many small creeks and bayous in Winn Parish, where I come from, will come under permitting requirements since they discharge into the Red River. Conceivably, a bunch of boys who might build a dam across Rock Creek will be in violation of the law. They will be discharging fill material into a "primary tributary" without a permit, as Rock Creek flows into the Potomac, which is, without question, a navigable waterway. Moreover, permits will be needed for lakes over five acres in area even if they are completely landlocked and privately owned by a single person. We are not fulfilling our responsibility as elected officials if we permit such unreasonable, unrealistic, unnecessary, and unenforceable regulations to go into effect on September 1.

At this point, so that I will not be misunderstood by my many friends in the Corps, I wish to say that I am not accusing the Corps of Engineers of an attempt to overextend its jurisdiction. The Corps is only abiding by the directives of the courts. I am convinced that the rational officials in the Corps did not seek and do not want this expanded authority which is being forced upon them as a result of a suit brought by environmental groups and inter-agency agreements.

The House has passed a bill, H.R. 9560, containing amendments to Section 404. This bill was passed by a very large margin. Within the time available to us we should consider these amendments, and I believe that we should adopt them so that they will become law. This would reduce the present burden on our citizens, bring about a more balanced distribution of authority between the Federal and state governments, and obviate the implementation of Phase II.

My colleague from the 7th District of Louisiana, Congressman John Breaux, obtained committee approval of a redefinition of "navigable waterways." His definition would restrict the meaning of the term to essentially what it is under Phase I. On the floor of the House Congressman Wright had additional amendments adopted, including exemptions for agriculture, forestry, maintenance of existing structures, and provides for general permits. The Wright amendments also provide for delegation of 404 regulatory authority to states, if they request it, and the exemption from permitting requirements of federally funded or assisted projects if environmental impact statements are submitted to Congress in conjunction with the authorization or funding of the projects.

I strongly support these amendments to the Water Pollution Control Act. They will place the regulatory provisions of Section 404 back into the perspective we intended. I do, however, wish to suggest several clarifications and additions which will strengthen the amendments.

It is my understanding that under Subsection (j) it was the intent of the amendments to permit delegation of regulatory authority over all wetlands to the states provided they have adequate authority and capability. I have been advised that because of the wording of the definitions of the terms "navigable waters" and "adjacent wetlands" in Subsection (d), this cannot be achieved.

This must be corrected. In Louisiana our coastal marshes are 50 miles wide in places, and according to Subsection (d)(1), 90 percent of them are defined as "navigable waters" because they are subject to the ebb and flow of the tide and lie below the mean high water mark. Subsection (j) provides for delegation of functions related only to adjacent wetlands.

It is true that navigable channels that are actually used for commerce must be regulated by the federal government because of the national interest involved. However, there is no reason whatsoever for the federal government to get involved in the construction of a pirogue ditch remotely removed from a navigation channel. We need language that will clearly spell out that functions related to wetlands other than actual navigation channels, both above and below mean high water, may be delegated to states which meet the necessary requirements.

We should also seriously consider the delegation of regulatory authority of Sections 9 and 10 of the Rivers and Harbors Act of 1899 to states. Most coastal states are in the same situation as Louisiana in that most of the permits which are required are in the coastal wetlands and waterways. We should consider automatic delegation of all Corps of Engineer regulatory authority except over actual navigable waters to coastal states which are receiving administrative grants under Section 306 of the Coastal Zone Management Act of 1972. The Coastal Zone Management Act requires that states have the capability and authority for managing their coastal areas. This is the best evidence we have that states will be able to adequately handle a regulatory program and will not allow abuse of our wetlands.

With regard to the exemption of certain activities, particularly maintenance, from regulation under Section 404, I am extremely pleased that we are looking to statutorially exempting farming and forestry. I strongly support putting back into the amendments a provision exempting the maintenance of drainage ditches, a measure originally proposed in the House by Congressmen Cleveland and Harsha.

Mr. Chairman, during the deliberations of this Committee you have heard many times about the wisdom of enlarging channels by starting at the bottom and working toward the headwaters. This is sound procedure and must be adhered to in maintenance of drainage channels. We have many drainage channels in upland areas of Louisiana which discharge into streams located in wetlands, both coastal and freshwater. The portions of these channels in the uplands need no permits for maintenance, but the lower portions do. If one of these permits is denied or delayed, unnecessary flooding may occur because the lower portion of the channel in question cannot accommodate the flow. This situation needs to be corrected.

It is not our intention in Louisiana to permit unlimited dredging, filling, and channelization. We only wish to maintain a proper balance between what needs to be preserved and what can be developed. Also, we need to maintain a proper balance between what needs to be regulated by government and what can best be regulated through the common sense of responsible landowners. Moreover, we need to be absolutely sure that we are regulating for the majority of our citizens.

As each day passes, I become increasingly convinced that we are legislating and regulating for the few and not the majority of our citizens who are daily concerned about making a decent living for their families. Millions of these good citizens live in our cities. This majority also includes our farmers who produce the food and fiber which we need for our own consumption and for export. Our ethnic minorities are a part of this majority.

Mr. Chairman, because of our position we are among the favored minority which can visit the sights of the deserts and mountains, enjoy the serenity of a deserted beach, canoe in the Boundary Waters, or hunt ducks in our wonderful Louisiana marshes. I am happy that I am in a position to do these things. But I feel a need to do more for those whose environmental needs are clean water to drink, enough nourishing food to eat, and a secure place to live. Their aesthetic and recreational needs may be satisfied by a nearby playground, a clean, vacant lot in which to play stickball, or a sluggish, muddy bayou to sit by, pole in hand, waiting for the biggest catfish in the world to come along. These are the people who deserve our help. We can take care of ourselves.

It is my feeling that we need to balance our ecological goals with our other critical needs and approach proper solutions with reasonable attitudes and reasonable actions, and I would sincerely hope that you share this view to the extent of amending the law so as to make it clear that the excesses described herein were not the intent of Congress.

Mr. Chairman, for your information and for the use of your Committee staff I am attaching the testimony which the Director of the Louisiana Coastal Commission presented on behalf of the State of Louisiana to the Water Resources Subcommittee of the House Public Works and Transportation Committee on July 16, 1975. It gives some detail of our problems in Louisiana and sheds additional light on matters you are considering at this hearing. I know that Mr. Behrhorst will be most happy to share his knowledge and experience with your Committee staff in providing additional information.

STATEMENT OF VERNON BEHRHORST

Mr. Chairman and Members of the Water Resources Subcommittee, I wish to thank you for the opportunity to appear before you to express our views concerning proposed permitting regulations of the U.S. Army Corps of Engineers. Also, I wish to thank Congressman Breaux for his most generous introduction.

First of all, I wish to introduce into the record the letter which Governor Edwin Edwards of Louisiana wrote to the Chief of Engineers and the Environmental Protection Agency on their proposed guidelines published in the Federal Register on May 6, 1975 (Attachment A). Governor Edwards also wishes to extend his best wishes to this committee. He served on this distinguished committee while a member of the Congress.

In 1968, while Governor Edwards was a member of the Public Works Committee you authorized the Louisiana Coastal Area Study. This study was the first comprehensive study of the needs of our coastal wetlands in Louisiana. Our Coastal Commission requested this study. It serves as the information base for our coastal zone management program which we are now developing in accordance with the Coastal Zone Management Act of 1972. On behalf of the Board of Commissioners of the Louisiana Coastal Commission, I wish to express our appreciation to the Public Works Committee for authorizing this important study.

For the record, I am also submitting a resolution passed by the Coastal States Organization at its meeting here in Washington on June 4th (Attachment B). I serve on the Executive Committee of Coastal States Organization representing the Gulf Coast States. This resolution, which was adopted unanimously, strongly opposed further incursion of federal permitting authority into an area of jurisdiction which we believe rightfully belonged to the states.

For those of you who are not familiar with the extent and problems of Louisiana's wetlands, I wish to give you a few brief statistics to provide some perspective. The State of Louisiana contains approximately one-fourth of our nation's coastal wetlands. Moreover, approximately one-fourth of the state is covered by wetlands. These seven million acres are about equally divided between fresh water and saline wetlands. You can therefore appreciate the concern of our citizens for permit regulations. Most of these wetlands are already covered by Corps of Engineers permitting activities. If the least restrictive of the four proposed permitting procedures is adopted, I repeat least restrictive, it is estimated that more than 60% of the state's area will be subject to the Corps of Engineers permitting requirements.

I must emphasize that we are not opposed to permitting in legitimate wetlands. Both Governor Edwards and the Coastal Commission believe that some type of regulatory mechanism is needed to protect the public interest in our wetlands. We are however opposed to expansion into areas which are only vaguely related to our wetlands.

Data developed in the Louisiana Coastal Area Study shows that Louisiana is losing an average of over 16 square miles of its coastal wetlands each year through man's activities, erosion, subsidence and salt water intrusion. Obviously, some type of regulation is needed to reduce and if possible eliminate this massive loss of land. However, I wish to stress that a regulatory program for preserving our wetlands alone is inadequate. We need an active coastal zone program which includes the physical management of water to arrest this loss and restore and enhance our wetlands. Regulation and management must go hand and hand. The attached article entitled "Shaping and Reshaping a Delta" by Mr. Fred Chatry and Sherwood Gagliano succinctly yet vividly points out the problems and possible water management solutions for coastal Louisiana (Attachment C).

Last month after the proposed Corps of Engineers and EPA regulations were published in the Federal Register, Dr. Walter Peevy, a recognized agronomist from Louisiana State University and I were asked to come to Washington and meet with EPA officials. The purpose of this meeting was to express our concern over the proposed guidelines and to provide EPA with information on Louisiana's unique problems associated with our wetlands. I wish to express our appreciation to EPA for taking time to listen to our point of view. Among the matters discussed included the extent to which permits would be required for agricultural activities, particularly rice farming. A real question does exist as rice farming requires the construction of levees a few inches high for the retention of water. Incidentally, our rice farms are not located in the coastal marshes as some may believe but primarily in the prairie section of our state.

We also discussed the matter of marshland management. In Louisiana over one million acres of our marshland are under active water management programs which involve construction of levees and water control structures. Part of this area is included in federal and state wildlife refuges as well as one private refuge operated by the National Audubon Society. Additional acreage is managed by private companies to provide optimum habitat for migratory waterfowl furbearing animals and alligators. Our concern is that the management of these areas may be hampered by burdensome permitting requirements for day-to-day maintenance of existing levees and control structures.

Additionally we discussed the permitting requirements for maintenance of existing drainage ditches and irrigation canals. Also, as much of Louisiana was subject to periodic overflow prior to the construction of the extensive flood control system, we were concerned about the necessity for permits in areas of Louisiana which are protected by levees and no longer subject to periodic inundation.

We also pointed out some of the problems associated with using the aquatic vegetation line in delimiting the shoreward limits of the waters of the United States. They are indicators which may be used in making this determination. However, due to rapid changes in the hydrology of Louisiana's streams and wetlands, the presence of aquatic vegetation may not be a positive indicator that an area is currently subject to periodic overflow. Cypress which started as saplings in a swamp hundreds of years ago may be on totally dry land today due to sedimentation.

At the present time, Louisiana along with the other coastal and Great Lakes states is developing a coastal zone management program in accordance with the Coastal Zone Management Act of 1972. From Louisiana's point of view the Court decision requiring expansion of Corps permitting jurisdiction has come at a very inopportune time. The reason for this is that in Louisiana practically all Corps permits that are issued are for activities in what we define as our coastal zone. During the first year of permitting under the guidelines issued by the Corps on

April 3, 1974 only 27 of the approximately 1200 permit applications were for activities outside the coastal zone. In essence we have come to equate the Corps permitting program with coastal zone management. We envision a coastal zone management program as a means of transferring permitting authority to the state. The expansion of Corps permitting jurisdiction by the Court, which many of our citizens consider to be most arbitrary, has dealt a severe blow to our coastal zone program. It will now be very difficult to convince our Legislature that the Federal Government is really sincere in delegating authority back to the states. This question also arises, if the states are to regain permitting authority, must we have one permitting system for the coastal zone and another for the remainder of the state?

To facilitate permitting under the new guidelines which will be published on July 26 and to demonstrate good faith on the part of the Federal Government, consideration should be given to some arrangement whereby states have a greater say so in the issuance of permits. We recognize that there is no specific provision for this in section 404 as there is in 402. However, an agreement could possibly be reached whereby what I call a "clearinghouse permit" could be used. Our Commission recommended that this procedure be considered last year. Under such a procedure, a designated state agency would secure the necessary review and comments from state agencies concurrently with the Corps obtaining review and comments from the federal agencies. The state agency would then recommend to the Corps whether or not the permit should be issued. Although not legally bound to do so, the Corps would give serious consideration to the recommendations of the state. This system would involve the state and also reduce the amount of time needed for the processing of permits.

This past April I was privileged to be one of the invited speakers at the National Conference of Water called by the President. My topic was the role of Federal, State and Local Government in Water Resources Management. I made the point that the Coastal Zone Management Act is the best example of legislation whereby the Federal Government relinquishes jurisdiction to states and should be used as a pattern for other programs. Many other speakers echoed the same sentiments. The consensus of conference participants was that the federal establishment already has involved itself in too many things that are state and local prerogatives. The Court decision is another intrusion.

In looking at the Water Pollution Control Act and pending bills that would amend it, we must not lose sight of the purpose of this legislation. Yesterday, both Mr. Veysey and Mr. Alm quoted the principle objective of the Act which is "to restore and maintain the chemical, physical, and biological integrity of the nation's water". We ask, for whom have we established this objective? It is for our people, or is it for protection of the natural environment, including wetlands, per se? Protecting and enhancing our natural environment is essential. However, let us not forget the majority of our people most of whom live far removed from the natural environment in our urban areas. Millions of these people because of economic or cultural restraints or for other reasons are not able to visit and enjoy our mountains, wetlands, and sea shores. Our efforts, under the Act must be directed to them. Their day-to-day need for clean water and air and food and clothing from our farms and factories at a reasonable price must be given first consideration. We should not be overly swayed by the minority who are fortunate in being able to enjoy the great diversity of this nation's natural endowment as they may desire.

In reviewing the four alternatives which the Corps of Engineers published at the Court's direction our immediate inclination was to ask Congress to enact legislation clarifying Corps of Engineers jurisdiction. A number of bills covering this subject are pending before this committee. Yesterday, Mr. Veysey, Assistant Secretary of the Army for Civil Works, testified that major variations from all four of the proposals might possibly be incorporated into the new guidelines. If we can assume Mr. Veysey's "possibly's" and "maybe's" to mean "will" there may not be an immediate need for legislative action by the Congress. We recognize that you are able to provide guidance through oversite hearings, such as the one we are having today, and through the appropriation process as well. Additionally, the judicial process of appeal has not been completed. Therefore, Congress possibly should wait to review the new guidelines and for results of an appeal before taking legislative action. Also, Mr. Veysey stated that the new guidelines will be put into effect in phrases over a three year period. This should be taken into consideration.

Although I do not recommend hasty action by the Congress, I put you on notice that the instant, next month or next yea , we see that administrative action is out of line with what we believe the intent of Congress to be we will be

back requesting appropriate corrective legislation. At that time we trust you will take immediate and necessary action.

In the meantime, the Public Works Committee should have its staff monitor consistently the implementation of the new guidelines and study and research possible corrective legislation particularly that which will more precisely define "navigable water" and "waters of the United States". Moreover, consideration should be given to legislation which will transfer permitting authority to state and local governments.

In closing I wish to make the following personal comment. The Corps of Engineers has been much maligned for what is being called overkill in publ cizing the proposed guidelines. Be that as it may, we must however recognize that a valuable public service has been rendered. The Corps has brought to the attention of the people a situation which we believe was not intended by Congress.

Mr. Chairman, and members of the Water Resources Subcommittee, you are to be commended for calling hearings to receive the diverse views of all concerned with this matter. This is the appropriate forum for resolving matters such as this. I wish to again thank you for the privilege of presenting our point of view to you.

STATE OF LOUISIANA,
EXECUTIVE DEPARTMENT,
Baton Rouge, May 28, 1975.

Lt. Gen. W. C. GRIBBLE, JR.,
Chief of Engineers, Office of the Chief of Engineers,
Department of the Army, Washington, D.C.

DEAR GENERAL GRIBBLE: As requested in your letter of May 3, 1975, comments are herein submitted on proposed regulations of the Corps of Engineers and the Environmental Protection Agency published in the Federal Register on May 6, 1975.

As Governor of the State of Louisiana, I am faced with frequent decisions which affect the daily lives of our citizens. Occasionally, a proposal for which I must consider and issue a decision or recommendation is of overbearing importance and has a tremendous impact on the present and future of our state. The regulations as published constitute one of the more serious proposals with which I have been confronted.

You must realize that Louisiana is perhaps the most unusual and water-rich state of the United States. Louisiana has a dramatic history inseparably tied to water and our future is completely dependent upon good management and utilization of our water supplies within constraints now existing from the federal to the local levels and in a manner which is environmentally safe. This is a unique part of the nation since we in this state exist under threats of the extremes of floods as well as droughts and at the same time are blessed with a network of rivers and streams providing more than 7,500 miles of commercially navigable waterways. Our coastal area includes areas extending from 35 to 50 miles inland from the Gulf and contains some of the most important resources of the state; namely, oil, gas, sulphur, salt, fish and wildlife. Consequently, there are many improvements and activities in this area including industrial locations, port and harbor facilities, navigation canals, major cities, transcontinental pipelines, interstate highways, agriculture and forestry areas, small towns and many other related developments. This coastal area is constantly being threatened by hurricanes, floods, high tides, and salt water intrusions, but yet has a substantial population with daily activities. Other extremes or contrasting parts of the state are the alluvial flood plains and major rivers traversing Louisiana covering approximately ⅓ of the state. In this same ⅓ area, 78 percent of our citizens live and work; practically all of the major industries are located; at least 80 percent of the state's disposable income is found; more than 60 percent of the state's agricultural production is contained; and fishing, wildlife, and recreational activities exist in abundance.

This brief overview describes a dynamic area, the State of Louisiana, where day to day activities are intimately involved in water and related land resources and where future water related activities will have to be increased if we are to meet the demands placed on our state. Louisiana is also willing and anxious to develop a major offshore oil port which will require many associated developments and alterations inland. Management and control of such changed conditions have largely resided with the local and state governments throughout our history. This pattern absolutely must be continued to prevent lengthy delays, shutdowns, denials, frustration and economic chaos. The same needs exist in our agricultural

industry where state agencies, local governments, and/or special districts also regulate drainage, irrigation, water uses, levee construction, impoundments, and other activities. Louisiana would probably be the state most affected by the proposal in requiring permits for every project throughout the state—for the farmer on almost any activity including irrigation, cultivation, pond construction, and clearing; for the private property owner from timber harvesting to building a swimming pool; for building homes in reclaimed areas such as the New Orleans vicinity; for industrial development along our many rivers; for constructing and maintaining indispensable flood control and hurricane protection systems; for drainage improvements; and for any undertaking to improve, grow and advance. Every square mile of Louisiana would fall under the broad permit system with the court's definition of "Waters of the United States." I do not believe we can be successful under such a federally controlled system with no recourse for appeals.

Therefore, I must emphatically oppose the proposed guidelines as published in the May 6, 1975, Federal Register. If federal controls are imposed to take away our remaining ability as a state to make our own decisions, it is a sad day in American history. I do not believe that Congress intended for the control of state and local developments to be domineered by federal agencies. Another major concern is that no satisfactory procedures are allowed in the proposed regulations for amending, negotiating or considering repeal of decisions issued by the Corps of Engineers and the Environmental Protection Agency, when overriding benefits are obvious and sanctioned by the state or states concerned. This state cannot agree to the proposed regulations for broadening and extending federal authority into areas that must remain a state and local responsibility. There is no reason to expand the permit authority now existing in Section 404 of the Federal Water Pollution Control Act Amendments of 1972 and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. Louisiana cannot continue to exist and move forward under regulations as proposed.

As Governor of the State of Louisiana, I strongly urge:

(1) That the Corps of Engineers and the Environmental Protection Agency obtain clearly defined Congressional intent in defining navigable waters and waters of the United States;

(2) That the Corps of Engineers request an extension of time from the Court to obtain Congressional guidance prior to publishing final regulations as required by the Court;

(3) That the United States Department of Justice immediately file a notice of intent to appeal the District Court's ruling on behalf of the defendants, and further, that the appeal process is duly completed.

If these recommended actions are not taken, it will be inexcusable and the State of Louisiana and the nation will suffer through implementation of the proposed guidelines; however, if no other option is available and it is unavoidable that one of the four alternatives must be carried out, then Louisiana would prefer Alternative 4 as the least damaging and having less problems.

On behalf of the State of Louisiana, I appreciate the opportunity to comment on the proposed regulations.

Sincerely,

EDWIN EDWARDS,
Governor.

ADOPTED AT COASTAL STATES ORGANIZATION MEETING IN WASHINGTON ON JUNE 4, 1975

RESOLUTION

Whereas, the Coastal States Organization, as an arm of the National Governors' Conference, has as its principal purpose the representation of the collective views of the coastal states in the formulation of national coastal and marine policy, and

Whereas, the proposals to greatly increase the United States Army Corps of Engineers' permitting authority to cover many additional activities and much more area would have a profound impact on state coastal zone management programs, and

Whereas, such proposed changes could greatly lengthen the time involved in achieving activities and would be costly to both government and private parties involved in such activities, and

Whereas, many persons doubt the need for such increased regulations, therefore be it

Resolved, that the Coastal States Organization opposes the imposition of additional permitting requirements by the United States Army Corps of Engineers at this time, recommends that current procedures and practices be continued, and requests that before any substantial changes are made a thorough assessment of all aspects and implications of such changes be done by the Congress of the United States, and the results of such study be publicized, and further be it

Resolved, that copies of this resolution be forwarded to all appropriate officials in the Legislative and Executive branches of the government.

(By Frederic M. Chatry and Sherwood M. Gagliano[1])

In 1717, Jean Baptiste LeMoyne, Sieru de Bienville, sent his engineer, Blond de LaTour, with a party of workmen to lay out a settlement on the banks of the Mississippi. The site—selected by Bienville despite the heated opposition of de LaTour, who believed it to be hopelessly flood-prone—is now the city of New Orleans. In recognition of the flood threat, de LaTour took steps to ensure that embankments would be constructed against it. Unknowingly, he thus intervened in a contest between the Mississippi River and the Gulf of Mexico, and initiated a sequence of events which was to alter decisively the course of that contest.

For a thousand years prior to de LaTour, the area which is now coastal Louisiana had been building by deltaic action. The building process was a gradual one, for the forces of the river and the sea were very nearly in balance. The river did, however, hold a tenuous initiative, and this initiative manifested itself in grudging surrender by the sea of part of its domain, through the building of new land by river-borne sediments.

The process set in motion by de LaTour was to weaken and ultimately to reverse the river's advantage. A quarter of a millennium later, the sea is clearly ascendant, and the Corps of Engineers finds itself involved in five important studies relating to Louisiana's coastal area. Because of the character of problems in that area, these studies involve major implications as to what the nature of man's response to a threatened environment should be.

In the current explosion of environmental concern, one is tempted to believe that the environmental problem was discovered only yesterday. The rhetoric of crisis holds full sway, and the mind boggles in a baffling barrage of editorials, articles, speeches, and television shows. Now, it may be that this barrage is necessary to mobilize the man in the street. But unfortunately, it tends to impede an understanding of something crucial: Irrespective of the future efficacy of some radical proposals for population control, the aspirations of people are likely to generate resources development needs which will go unmet only at catastrophic cost.

Viewed in this light, solutions to the environmental problem must be worked out largely in the realm of technology. It follows that those of us who work with water resources can be most responsive to the environmental threat by demonstrating that the relationship between development to meet the demands of a highly industrialized and urbanized society, and a viable environment, need not be one of the inevitable conflict. In short, we must strive to meet essential needs within a framework of minimum ecological change of a deleterious nature.

It was mentioned previously that the Corps is currently involved in five studies, the environmental implications of which are of special significance. These studies include four which are part of the regular Corps program of water resources investigations, and one which is being conducted under the aegis of the Water Resources Council. For ease of reference the studies and their basic purposes are shown in the accompanying tabulation (see Chart 1). In all, the coastal area is an important element of concern.

The aspects of these studies which this article seeks to illuminate are those which relate to the nature of ecological change in the area, with particular reference at this time to the area as a habitat for fish and wildlife. The investigations involved, which will produce essential input to the five studies, are collectively referred to as the *Fish and Wildlife Study of the Louisiana Coast and Atchafalaya Basin Floodway*. For our purposes, the Atchafalaya Basin Floodway may be thought of as an integral part of the Louisiana coastal area.

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[1] Mr. Chatry is Chief, Basin Planning Branch, U.S. Army Engineer District, New Orleans. Dr. Gagliano is Associate Professor, Coastal Studies Institute, Louisiana State University, Baton Rouge, La.

With the above as prologue, let us take a broad look at the Louisiana coastal zone inclusive of the Atchafalaya Basin Floodway. Mostly marshes, swamps, and lakes, it presents, in gross aspect, a rather desolate appearance. This desolation tends to obscure its value to the State and the Nation. Yet, the more than 5.5 million acres of wetlands in the coastal zone comprise nearly 20 percent of the State. Within or immediately adjacent to the coastal zone resides nearly half of the State's inhabitants. Louisiana ranks second in the Nation in the production of crude oil, natural gas and sulphur, and the coastal and adjacent offshore areas account for nearly all of this production. Louisiana leads the Nation in salt production, more than two-thirds of it coming from the coastal zone. Twenty percent of the State's agricultural production is derived within or immediately contiguous to the zone. The Nation's second largest port—New Orleans—is located within the coastal zone, and two others—Baton Rouge and Lake Charles—are nearby.

The important place occupied by commercial fisheries and wildlife in the overall economic framework of the State is a matter of common knowledge, and nearly all of the harvest of commercially imported species of fish and wildlife, which aggregates some $45 million annually, is reaped within the coastal zone. The coastal marshes are located at the southern terminus of the Mississippi Flyway and up to 50 percent of the waterfowl using the flyway winter there. The coastal zone currently supports an estimated 9 million man-days of sports fishing annually, and nearly 2 million man-days of hunting.

The emphasis on economics in the foregoing is not intended to imply that the total intrinsic worth of the study area is measurable in purely economic terms. The coastal zone embraces much which is of scenic, cultural, and historical value. Unique botanical specimens, and unusual plant communities are found in many locations in the area. The zone is marked by its history, and many features of great cultural value survive, including early village sites, plantations, churches, and fortifications. It contains unique topographic and geologic features, such as barrier beaches, natural swamps and marshes, salt domes, mud lumps, and the meander belts of the Mississippi River. The coastal zone is, beyond question, an important part of our dwindling natural heritage, and the philosophical arguments advanced in support of preserving wild rivers and scenic canyons apply to it with equal force.

It has been apparent for some time that Louisiana's coastal zone is threatened. Even a casual observer notes great and continuing change. Erosion and subsidence are converting land areas to open water. Canals to service the offshore oil and fishing industries, and to move a variety of commerce, weave a labyrinthine lacework through the marshes. All of these are evident, but beyond them more subtle changes are taking place: in salinity, both in the water and the soil; in the vegetation; in currents and flow patterns; changes in fact, in nearly all of the important parameters from which the zone derives it unique character.

From the foregoing it is apparent that the coastal zone is indeed a threatened environmental asset worth preserving. It is equally apparent that the environmental question involved goes beyond the usual dimensions of the development-preservation dichotomy common to resources explotitation, such as that epitomized in the case of, say, the Salmon River of Idaho, or other "wild" western rivers. In such cases, the means of preservation is inaction, and its costs are measured in terms of what might have been, i.e., in developmental benefits foregone. Furthermore, inaction in the case of a wild river basin offers some prospect that the objective—preservation—will be at least partly achieved. In the Louisiana coastal zone, inaction will likely mean a continuation of present trends, and its costs may well include the loss of an existing and thoroughly palpable asset.

It was in the context of increasing awareness of and concern over the environmental threat that the study was initiated in 1968. Because of the highly interdisciplinary nature of the investigations involved, the Corps, at the outset, established an ad hoc interagency group to conduct them. This study group, which is chaired by the New Orleans District of the Corps of Engineers, includes representation from the Louisiana Department of Public Works, the Louisiana Wild Life and Fisheries Commission, the Louisiana Stream Control Commission, the Federal Bureau of Sport Fisheries and Wildlife, the Federal Bureau of Commercial Fisheries, the Federal Water Quality Administration, the Bureau of Outdoor Recreation, and the United States Geological Survey.

As depicted in Chart 2, five work units are responsible for work in five areas of study. Key participants in the study are the Coastal Studies Institute of Louisiana State University in Baton Rouge, which is supporting the study effort

in the areas of hydrology and geology, and the Louisiana Wild Life and Fisheries Commission, whose professional staff includes biologists with an intimate knowledge of the coastal zone.

The objectives of the study are several. Briefly, we seek: (1) to identify the nature and extent of ecological change in the coastal area; (2) to quantitatively relate productivity in the fish and wildlife resource to the physical and chemical parameters which, in their totality, comprise the estuarine environment; (3) to determine the parametric changes required to optimize the estuarine habitat; and (4) to suggest broad approaches through which these parametric changes may be accomplished.

In June, the Coastal Studies Institute completed a comprehensive report on the hydrology and geology of the coastal area. This report will serve as an essential data base for further studies, and is pregnant with insights into the nature of the threat to the estuarine environment. The remainder of this article is devoted to a brief description of the report and its more salient findings.

Louisiana's coastal zone is an integral part of the delta of the Mississippi River—it is, in fact, not too much to say that coastal Louisiana *is* the Mississippi Delta. Like all deltas, that of the Mississippi is a zone of the interactions between fluvial and marine processes and constitutes one of the most dynamic situations in nature. The interaction of these processes over time results in a dynamically changing complex of environments within delta regions.

Deposition of sediments vies with subsidence and erosion in a never-ending exchange of land and water areas. The balance between deposition and the combined effects of subsidence and erosion cause shorelines of deltas alternately to advance seaward and then retreat. Seaward growth occurs at the mouths of active streams, whereas erosion results near the mouths of inactive streams which no longer transport sufficient sediment to sustain their seaward advance. This is the reason that delta building is so often depicted as a contest between the river and the sea.

If the river deposits sediment faster than the sea is able to remove it, new land is added to the shore, and the delta is said to prograde. As a delta is extended, it gradually builds upward or aggrades by processes associated with lateral shifting of channels, by sediment deposition during overbank flooding, and by accumulation of plant and animal remains. Deterioration of a delta occurs if all or part of it is deprived of the necessary supply of river-borne sediment for replenishing losses due to erosion and subsidence. This results in the reworking and/or removal of the seaward edge by wave attack and the settling and subsiding of the surface below sea level.

It follows that three basic conditions may exist in a delta: (1) that of seaward building, or progradation; (2) that of building up, or aggradation; or (3) that of transgression, or retreat. A fourth condition, that of near-stability, may also exist, but this condition is not of particular interest here.

If the deltaic plain of the Mississippi is considered as one integrated, dynamic system with riverine and marine inputs, it is only necessary to inspect a map or aerial photo mosaic of this system to appreciate its complexity and to understand that it is made up of a number of subsystems. Keeping in mind that four conditions may exist, it is possible to identify and examine the subsystems that occur in the Mississippi Delta at a given instant in geologic time. This is not to say that we are losing sight of the dimension of time, but rather we are looking at the deltaic plain as it exists today, appreciating the fact that it does and will change with the passage of time.

Our examination reveals that all four of the conditions noted coexist within the delta. For example, the interdistributary basin lying between the active channel-levee system of the modern Mississippi and the abandoned channel-levee system of Bayou Lafourche, a former distributary of the Mississippi, functions as a large estuary. Its seaward end is in a condition of deterioration or retreat, while its fresher landward end is in a condition of aggradation. Geomorphic forms and sedimentary environments reflect these conditions. In comparison, many parts of the active birdfoot delta at the river's mouth are clearly prograding, or building seaward, and the distinctive assemblage of geomorphic forms and sedimentary environments found in this part of the delta reflects this condition.

To be sure, conditions can and do change in the subsystem from time to time. Most often the framework of a subsystem has been imposed on it by conditions which prevailed in the past. For example, an abandoned distributary system may presently be undergoing transgression or retreat. Today, the system functions as an estuary, but its framework has been imposed on it by a distributary system that was active during an interval of progradation which took place at some time in the past.

In the Mississippi Delta, this habit of shifting sites of progradation has produced a deltaic plain that is lobate in surface configuration and cyclic in vertical section. South Louisiana as we see it today has been built up by a series of sediment pods, each of which is associated with an interval of delta progradation. Viewed from above they are lollipop-shaped masses of sediment.

From the above discussion it might be concluded that, when viewed through geologic time, a delta system is always in delicate balance—that is, on one side of the fulcrum is the supply in the form of transported sediment, and on the other is loss in the form of erosion and subsidence. The very existence of south Louisiana bears witness to the fact that there has been net progradation over a very long period.

The same pressures which impelled de LaTour to erect his first levee persisted and intensified through the years. For various reasons, alluvial lands are more amenable to development than others, and one of the consequences of such development in the Mississippi Delta has been alteration of the deltaic processes previously described. The protection of the alluvial valley from floods has virtually eliminated overbank overflow of the coastal lands. Furthermore, the modern birdfoot delta is now at the edge of the continental shelf and most transported sediments in the Mississippi are disappearing into the deeper bathyal zone. A fundamental question posed in the investigations was therefore "Is the delta, or for that matter, is the coastal area on the whole, building or retreating?"

The question had been approached by a number of investigators. The Corps, since its involvement in the construction of the Atchafalaya Basin Floodway, has documented topographic and hydrographic changes therein. Fisk (1952) indicated filling rates in the Floodway. Morgan and Larrimore (1957), in a careful comparison of historic maps, measured rates of progradation and retreat of the outer shoreline for the entire Louisiana coast. Saucier (1963) determined rates of shoreline retreat around the Lake Pontchartrain embayment. Finally, Coleman, Morgan, and Gagliano (1969) determined rates of subdelta growth in the active area of the Mississippi Delta.

We have attempted to quantify the total land loss picture by using the ratio of land to water in a given sample area as an index of net gain or loss. Fortunately, systematic planimetric mapping of coastal Louisiana was initiated in the 1890's by the U.S. Geological Survey. In the 1930's, this area was remapped, and use was made of controlled aerial photo mosaics. Mapping and remapping have continued since the 1940's, so that at present most of the areas have been covered at least twice.

Careful periodic remapping of the region has made it possible to determine the change in ratio of land to water for a particular area and mapping interval; these values in turn can easily be converted into land loss or gain in acres per year. In the present study a point-counting technique was used to determine changes in land-water ratios for each 7½-minute quadrangle map for the interval between the mapping of the 1930's and the most recent remapping.



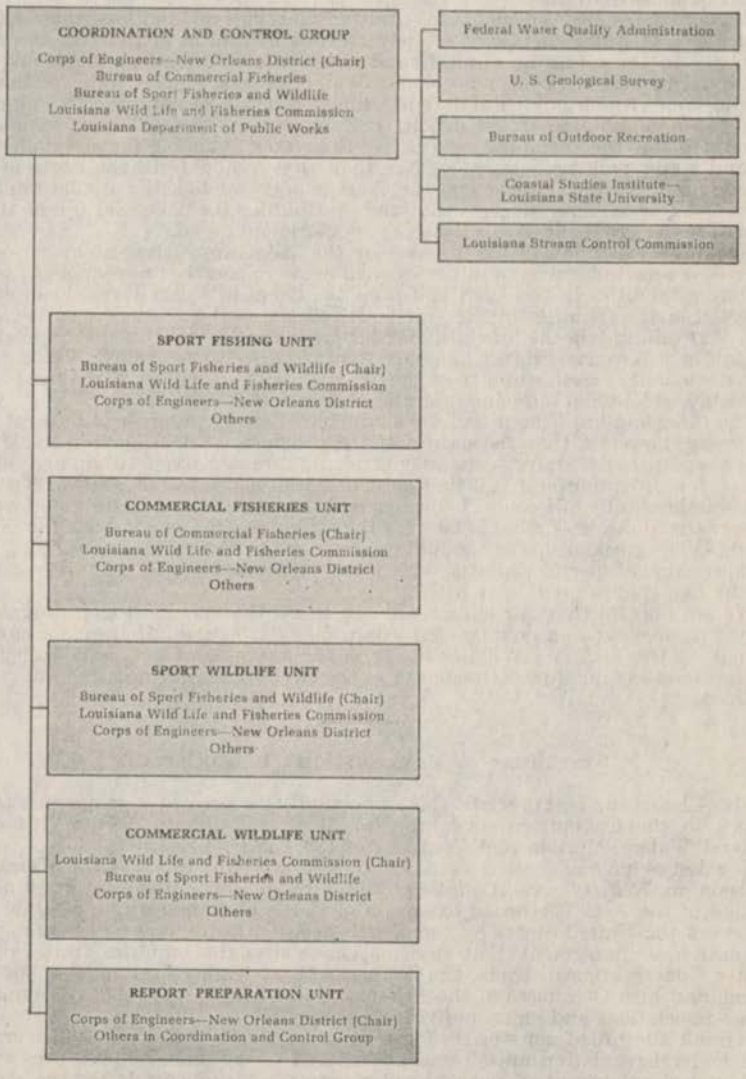
CHART ONE: FIVE STUDIES OF SPECIAL ENVIRONMENTAL SIGNIFICANCE	
Study Title	**Purpose**
Lower Mississippi Region Comprehensive Study (Type I)	Identify and quantify the water and related land resources development needs of the region, outline broad plans for meeting these needs, and indicate the magnitude of the investment required for effectuating such plans.
Old and Atchafalaya Rivers Control Study	Determine whether any modifications, extensions or additions to the existing Old River Control System or its operation are warranted.
Louisiana Coastal Area	Determine the advisability of improvements or modifications to existing improvements in the coastal area in the interest of hurricane protection, prevention of salt water intrusion, preservation of fish and wildlife, prevention of erosion, and related water resources purposes.
West Texas and Eastern New Mexico Water Import Study	In conjunction with the Bureau of Reclamation, evaluate the feasibility of a proposal to import up to 12 million acre-feet of water per year to the "High Plains" area of Texas and New Mexico.
National Shoreline Study	Appraise erosion problems along the coasts of the Atlantic and Pacific Oceans, the Gulf of Mexico, Puerto Rico and the Virgin Islands, with peripheral consideration of possible remedial measures in the context of alternative land and water uses and the total natural environment.

WATER SPECTRUM

The map of coastal Louisiana, on page 26, graphically depicts the results of the land loss studies. The map demonstrates that most of the deltaic plain is in a serious condition of deterioration. During the last 30 to 40 years significant land gain has occurred in only a few areas, notably in the Atchafalaya Basin. Areas of maximum land loss coincide with areas of maximum subsidence rates, as determined by radiocarbon dating of marsh peats. The computations indicated maximum loss rates in excess of 300 acres per year per 7½-minute quadrangle. For the coastal Louisiana wetlands as a whole, the land loss amounts to approximately 16½ square miles per year—that is, 495 square miles in a 30-year period. On the basis of these figures, it is safe to say that Louisiana has the distinction of having the highest rate of land loss of any State in the Union.

If, as is surely true, land loss in the coastal areas may be considered a pernicious disease, what are the prospects of a cure? The key is to be found in those areas where land gain is occurring. For example, the Atchafalaya River—the Mississippi's only major distributary—is actively building a lacustrine delta. During the past 50 years Atchafalaya sediments have filled a series of large lakes, and the river will soon construct a delta lobe into the gulf.

CHART TWO: FISH AND WILDLIFE STUDY OF COASTAL LOUISIANA AND THE ATCHAFALAYA BASIN FLOODWAY



An extensive coring program in the West Bay area has enabled us to determine the thickness of the sedimentary pod deposited there in a period of about 80 years through subdelta activity. During this interval approximately 80 square miles of land was constructed by the subdelta and the sediment pod exceeded 24 feet in maximum thickness.

The nature of the solution to the problem of coastal land loss emerges: we must learn to control and direct the natural processes of sedimentation. Without minimizing the formidable problems—technical, institutional, legal, and economic—which would be involved in making controlled diversions of sediment-laden waters in deteriorated areas, the suggestion that widespread benefits would likely be realized from such diversions is inescapable. Nor would the benefits necessarily be limited to reversing land loss trends; extension of the land mass would provide a hurricane buffer, and extend the length of land-sea interface and the length of major estuaries. This, from the standpoint of fisheries and wildlife, would be most desirable.

While perhaps not as dramatic as the study findings on land loss, those relating to the area of water chemistry are nevertheless helpful in defining the nature of problems in the estuarine habitat, and suggestive of measures which might be employed to deal with such problems. Water balance studies indicate that the coastal zone, which enjoys abundant annual rainfall, is nevertheless subject to frequent periods of moisture deficit. In fact, when climatic energy demand is accounted for, the precipitation excess—the water available for streamflow and ground water recharge—is no greater than that available in the State of New Jersey, an area which receives on the average only one-half the annual rainfall of the coastal area. This suggests that the possibilities for beneficial use of supplemental water are likely greater than is popularly supposed.

Since direct overflow of the marshes by the Mississippi River no longer occurs, river flow now influences salinities in such areas in a rather roundabout fashion: It lowers salinities in the open gulf, and the effect of these lowered salinities is reflected in the salinities in the marsh. It follows, and the study results confirm this, that salinities in the brackish marsh zone tend to be much more responsive to rainfall, which exerts a direct influence than they are to river flow. This suggests, that diversions of fresh water from the Mississippi to specific points of need should be highly effective in inducing desirable changes in salinity.

The foregoing has been a sketchy summary of study progress to date. It bears repeating, however, that the nature of the problem, as developed in the studies, does suggest that we must learn to control and direct sedimentation, and develop means for providing and utilizing supplemental water where needed. The Fish and Wildlife Study of Coastal Louisiana and the Atchafalaya Basin Floodway will answer the question of what is best for the estuarine area as a habitat for fish and wildlife. The mechanism for conducting the investigations which could lead to the authorization of specific projects or measures for improving the habitat is provided by the five studies previously listed.

We are hopeful that our efforts will constitute the vanguard to a program designed to preserve and enhance the estuarine environment. If they do, our hope of making the Fish and Wildlife Study of the Louisiana Coast and Atchafalaya Basin Floodway an apposite response to the environmental threat will have been realized.

STATEMENT OF SENATOR JOHN L. MCCLELLAN

Mr. Chairman, I appreciate this opportunity to present a statement for the record to the Committee concerning problems relating to Section 404 of the Federal Water Pollution and Control Act (33 U.S.C. 1344).

Few issues have generated as many contacts with my office as the March 1975 decision in *N.R.D.C.* vs. *Callaway* (392 F.Supp. 687, 1975) interpreting this section of the Act. The broad extension of Corps of Engineers jurisdiction to all waters of the United States by the court's decision in that case, and attempts by regulation to implement that decision, have brought inquiries from Soil and Water Conservation districts, the Arkansas River Valley Commission, the State Game and Fish Commission, the Arkansas Industrial Development Commission, other associations and many individual farmers.

I think the broad consensus of my constituents is that Federal Government and Federal regulation must remain restricted in the management, preservation and wise development of our natural resources. A proper role for the states is desirable and should be preserved in this area. The expanded jurisdiction of the Corps in administering its dredge and fill permit program is a good example, I believe, of excessive Federal governmental involvement in state affairs with great potential effect on the agricultural and silvicultural industries of our country. This involvement does not preserve and protect appropriate state interests in

water resource management. Practical aspects, the foremost of which is the burden of administering a permit program of this magnitude, should also receive due consideration.

Based on these and other factors, I joined in cosponsorship of S.1878, introduced by Senator Tower on June 5, 1975, which would limit the Corps jurisdiction to waters actually navigable and tidal waters. Since that time, however, by a vote of 234–121 on June 3 this year the House passed the so-called Wright amendment which will do much to solve some of the administrative, jurisdictional and practical problems resulting from the court decision to which I have referred. This amendment with its agricultural exemption should help to further resolve this controversy.

Because the House has already strongly endorsed the Wright amendment, I urge the Committee's careful review of this proposal.

Adoption of this amendment or similar language is required to maintain a significant role for the states in water quality preservation and to prevent the inevitable bureaucratic tangle resulting from the court's interpretation of section 404 in *N.R.D.C.* vs. *Callaway*.

U.S. SENATE,
COMMITTEE ON APPROPRIATIONS,
Washington, D.C., July 27, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
U.S. Senate, Washington, D.C.

DEAR JENNINGS: Enclosed is a prepared statement which I would like to have included in the Hearing Record for the Section 404 Water Pollution Control Act Hearings.

I am most appreciative of your conducting these hearings at this time and am hopeful that your Committee can reach a reasonable compromise on this issue which is of great importance to the future of energy development in Wyoming and the Western states in general.

Sincerely,

GALE MCGEE,
U.S. Senator.

Enclosure.

STATEMENT OF SENATOR GALE W. MCGEE

Mr. Chairman: As you know, the expansion of Section 404 of the Water Pollution Control Act has serious implications for every state's ability to control and administer its own water. You have clearly recognized this and I wish to thank you and the Committee for scheduling these important hearings.

The District Court's decision in *NRDC* v. *Callaway* in 1975 has established an extremely broad definition of "navigable waters". In my view the Court has erred in interpreting the statute which defined such waters. Furthermore, the ultimate effect of this decision would establish Corps of Engineers' jurisdiction over practically every body of water in my State of Wyoming. The State would have no control over its own water resources.

Waters in the State of Wyoming are not "navigable" in the traditional sense. The State of Wyoming has been extremely diligent and responsible in its administering of these waters and there is no justifiable reason for the Corps to extend Federal Government authority to this area which is properly the domain of State jurisdiction. We in Wyoming draw different conclusions about this extension of Corps power than those of environmentalists outside our State. Those concerned about wetlands protection believe that the Corps of Engineers has changed its philosophy away from water and power development. They perceive that the Corps is now the great protector of our wetlands. However, Wyoming citizens apprehensively see the power which remains in the hands of the Corps to divert the precious water resources of our State to purposes which are not of our choosing. The people of Wyoming do not dispute the fine work that the Corps has done to protect our wetlands. Indeed the Wyoming Game and Fish Department has commended the wetlands conservation program of the Corps and is concerned that it continue this effort. But what about the Corps' traditional and all encompassing role in water resource development? There is no disputing the fact that Wyoming and other Western states are under enormous pressures to develop their energy resources. Nor is there any dispute that water is the key to this development. Can anyone sincerely believe that the Corps of Engineers will resist the pressures

of an Administration clearly committed to converting the Western states into power plants and energy production centers for the rest of the nation? We in Wyoming fear not.

This is the dilemma we face as a result of the all embracing decision of the District Court. I do not insist that we sacrifice the preservation of our wetlands for retention of our State's control of its water resources. This appears to be the best time to reach a reasonable solution to this problem and it comes at a time when the Corps has been ordered to delay implementation of the Court's decision. I do not believe that those concerned with wetlands conservation advocate the cruel choice between wetlands and Western lands. But if we can reach no compromise on this issue which choice shall we make in the interests of all? I believe that the solution can be found through these hearings and subsequent legislation.

We in Wyoming are not oblivious to the conservation issue involved. But we must insist on controlling our own destiny; and our destiny is inextricably linked to our water. If we are to be called upon to produce significant amounts of energy for the nation at the expense of serious disruption of our way of life, it is only reasonable and fair that we be afforded the opportunity to control as much as possible the forces that are shaping our lives. Water is the key to that control and I urge the Committee to adopt measures which will restore the states' traditional authority over their own water resources.

U.S. SENATE,
Washington, D.C., July 26, 1976.

DEAR COLLEAGUE: On July 27 and 28, the Senate Committee on Public Works will hold hearings on the implementation of regulations promulgated under Section 404 of the Federal Water Pollution Control Act. This is a matter of vital concern to us all, and I would hope these hearings will convince skeptics of the need to amend the original act to reduce the authority of the Corps of Engineers.

I believe the best way to reduce the interference which derives from the Corps' extensive jurisdiction under this section of the Act is to adopt the proposal offered—and accepted by almost a two-to-one margin—in the House by Mr. Wright.

Many of you, I know, agree with that sentiment. Almost a third of the Senate expressed displeasure at the present situation with the Corps in our letter to President Ford asking for a delay of Phase II of the regulations.

I think the best arguments for supporting the "Wright Amendment" are contained in the enclosed issue paper prepared by the National Association of Realtors. I hope this material will be of use to you in making your decision, and I would draw your attention to the long and impressive list of national, regional, and state organizations which support this position.

We have an opportunity here to truly reduce the burden of government in this country. I honestly feel we cannot pass it up.

If you have further questions, please have your staff contact Joe Winkelmann, X-42934, in my office.

Sincerely,

JOHN TOWER.

DREDGE AND FILL PERMIT REGULATIONS—ARMY CORPS OF ENGINEERS

(Sec. 404—Federal Water Pollution Control Act)

Issue

Army Corps of Engineers' control over "navigable waters" and their adjacent wetlands.

Background

Section 404 of the 1972 Federal Water Pollution Control Act requires a Federal permit be obtained from the Army Corps of Engineers before any dredge or fill activity can take place in navigable waters and their adjacent wetlands. Pursuant to Section 404, the Corps published regulations only to have them struck down by a subsequent court decision, N.D.R.C. vs. Calloway (392 F. Supp. 687 1975). The U.S. District Court for the District of Columbia significantly expanded the definition of navigable waters, and consequently, the scope of the Corps' permit program.

On June 3, 1976, the U.S. House of Representatives passed the "Wright Amendment" by a vote of 234 to 121, which redefined the term "navigable waters"

as it applies to Section 404 of the Federal Water Pollution Control Act. If passed by the Senate and enacted into law, the new definition would bring back into line the Army Corps of Engineers' regulatory authority.

What the Wright amendment will do

(1) Redefine the term "navigable waters" to include those waters presently used or susceptible for use, through reasonable improvement, in the transport of goods in interstate and foreign commerce.

(2) Mandate the implementation of a dredge and fill permit program for those wetlands adjacent to "navigable waters".

(3) Allow the Secretary of the Army to delegate permit authority to a State if it is determined that the State has sufficient authority to effectively protect those wetlands adjacent to "navigable waters".

(4) Exempt normal farming, ranching, and silviculture practices from regulation under the Section 404 dredge and fill permit program.

(5) Allow additional wetlands to be added to the Army Corps of Engineers' permit jurisdiction if agreed to by the governor of a State and Secretary of the Army.

Previous to passage of the "Wright Amendment", the definition of "navigable waters" had come to mean "virtually every coastal and inland artificial or natural water body." [1] This translates into extensive Federal involvement in land use related decisions which traditionally had been the province of state and local governments.

Action needed by the Senate

Passage of S. 2710, as amended by the House, with the Wright Amendment intact.

Reason why action is needed now

In order to enable Congress to act on this important issue, the President has suspended for 60 days the implementation of Phase II of the Dredge and Fill Permit Program. Phase II was to become effective July 1, 1976, which would have expanded the Corps' jurisdiction to include:

Primary tributaries of navigable waters;
Natural lakes greater than five acres or more; and
Adjacent wetlands to both primary tributaries and lakes.

The third phase of the program will be implemented *July 1, 1977*, and will further expand the Corps' jurisdiction to virtually all waters of the United States.

A delay in Senate action on S. 2710 and the Wright Amendment would result in the implementation of the Corps' program and more Federal regulations at a time when the public is demanding less, not more, Federal control.

Why the Wright amendment is necessary

The protection of the nation's wetlands should be done in a comprehensive and balanced manner with proper involvement by State and local governments. The Army Corps of Engineers' Dredge and Fill Permit program, however, calls for excessive Federal intervention and excludes State or local government involvement.

The Wright Amendment in S. 2710, to limit the scope of the Corps' dredge and fill permit program, should be supported for the following reasons:

1. The Present 404 Dredge and Fill Permit Program Mandates Excessive Federal Involvement.
2. The Present 440 Dredge and Fill Permit Program is too Single-Purpose in Nature to Adequately Protect Wetlands.
3. The Present 404 Dredge and Fill Permit Program Will Require a Large and Costly Federal Bureaucracy.
4. The Present 404 Dredge and Fill Permit Program Will Prove Unmanageable.
5. The Present 404 Dredge and Fill Permit Program was Mandated by the Courts and May Exceed the Original Intent of Congress.
6. The Present Dredge and Fill Permit Program Could Have an Adverse Impact on Normal Agricultural and Ranching Water Conservation Practices.

REASONS TO SUPPORT THE "WRIGHT AMENDMENT"

1. The Present 404 Dredge and Fill Permit Program Mandates Excessive Federal Involvement—

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[1] Federal Water Pollution Control Act of 1976, Report 94–1107, Apr. 30, 1976, p. 20.

Under the current dredge and fill program States and localities do not have the opportunity to be involved in the protection of their wetlands. The program is administered solely by the U.S. Army Corps of Engineers. Yet, several States now have, or are developing programs to deal with these ecologically important areas. In these States the Federal program would *duplicate* State efforts.

The Wright Amendment addresses this issue by allowing states an opporunity to become directly involved in the Dredge and Fill Permit Program.

The House Public Works Committee's Report stated, "*The Federal government cannot and should not be expected to assume the entire responsibility for environmental protection.*" [2]

2. The Present 404 Dredge and Fill Permit Program is too single-purpose in nature to adequately protect wetlands—

Any program to protect the nation's wetlands should balance economic, environmental and energy considerations. The case by case permit approach, only dealing with dredge and fill activity, represents too narrow a focus to effectively protect valuable wetlands. Wetland protection should come through a comprehensive resource management approach rather than a piecemeal permit approach.

As the House Committee Report points out, the Coastal Zone Management Program ". . . *is the type of comprehensive planning and regulatory program which is needed for the protection of wetland areas, not the limited project by project approach under the expanded Section 404 program.*" [3]

The Wright Amendment addresses this problem by giving states an opportunity to integrate the dredge and fill program with other wetland protection programs in those wetlands not adjacent to navigable waters.

3. The Present 404 Dredge and Fill Permit Program will require a large and costly Federal bureaucracy—

The Army Corps of Engineers estimates that an additional 600 employees will be necessary to process permit applications alone. The Committee Report points out, "*This does not include enforcement activities which will become increasingly difficult.*" . . . (emphasis added).

At a time when the Federal deficit soars, it is highly unlikely that neither Congress nor the Executive Branch will permit the additional large number of personnel required to manage the present Section 404 permit program, which some have estimated will be in the thousands.

The number of permit applications under the current Corps' program . . . "is expected to rise from close to 20,000 to at least 40,000 and more likely 50,000 by 1978." [4]

The Wright Amendment addresses this concern by restricting the jurisdiction of the Army Corps' permit program (under the definition of navigable waters), while at the same time placing more responsibility for wetland protection with the states, thus reducing the need for large expansion of the Federal bureaucracy.

4. The Present 404 Dredge and Fill Permit Program may prove unmanageable—

The scope of the present program will likely be impossible to manage effectively. In the case of Minnesota, for example, over 10,000 bodies of water will come under the Corps' jurisdiction.[5]

"*The [House Public Works] Committee is concerned that the program will prove impossible of effective administration and that more will be lost than gained in the protection of the Nation's waters.*" [6]

Because of the numerous amount of permit applications, *lengthy delays will be inherent in the program.* This will add to the already spiraling costs in the housing and real estate development industry.

The smaller permit program mandated by the Wright Amendment, through the redefinition of navigable waters, will restrict the program to a manageable scope.

5. The Present 404 Dredge and Fill Permit Program was mandated by the courts and may exceed the original intent of Congress—

The Corps did not expand its jurisdiction under Section 404 to "all waters of the United States" until ordered to do so by a Federal district court last year. Some Federal officials maintain that the 1972 Federal Water Pollution Control Act never intended that Section 404 be a vehicle to protect the wetlands.[7]

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[2] Ibid., p. 22.
[3] Ibid., p. 22.
[4] Ibid., p. 22.
[5] Congressional Record, Apr. 30, 1976, E2256.
[6] Federal Water Pollution Control Act of 1976, op. cit., p. 22.
[7] Comments by Paul A. Vander Myde, Deputy Assistant, Secretary for Conservation, Research and Education, Columbia, S.C., Nov. 21, 1975.

The Wright Amendment clearly defines Congressional intent of Section 404 of the Federal Water Pollution Control Act through the redefinition of navigable waters.

6. The Present Dredge and Fill Permit Program could have an adverse impact on normal agricultural and ranching water conservation practices—

Although the Corps has stated that it has no intention of regulating normal farming and ranching activities, there is no assurance that future court action will not force the Corps to become active in this area. Such development activities as pond construction, sod waterways, diversion ditches, stream bank improvements, and other water management practices will come under the jurisdiction of the Corps' regulatory program.

"In addition, under the existing Section 404 program given its broadest reach, all matters of small agricultural and forestry activities could be subject to Federal permit regulation." [8]

Eventually, virtually all construction and development activity would be subject to the Corps' permit program if it is to be conducted adjacent or contiguous to surface waters.

As previously mentioned, the Wright Amendment specifically excludes normal farming, ranching, and silviculture practices from the Corps' Permit Program.

ORGANIZATIONS SUPPORTING THE "WRIGHT AMENDMENT"

1. American Association of State Highway Transportation Officials.
2. American Concrete Paving Association.
3. American Consulting Engineers Council.
4. American Farm Bureau.
5. American Hotel and Motel Association.
6. American Institute of Architects.
7. American Institute of Steel Construction, Inc.
8. American Land Development Association.
9. American National Cattlemen's Association.
10. American Paper Institute.
11. American Petroleum Institute.
12. American Road Builders Association.
13. American Society of Civil Engineers.
14. American Society of Landscape Architects.
15. American Subcontractors Association.
16. Associated Builders and Contractors, Inc.
17. Associated Equipment Distributors.
18. Associated General Contractors of America, Inc.
19. Associated Landscape Contractors of America, Inc.
20. Building Owners and Managers Association International.
21. Canal Authority of Florida.
22. Ceilings and Interior Systems Contractors Association.
23. Concrete Reinforcing Steel Institute.
24. Council of Construction Employers, Inc.
25. Council of State Legislatures.
26. High Plains Underground Water Conservation District No. 1.
27. International Council of Shopping Centers.
28. Miami Conservation District.
29. Mechanical Contractors Association of America, Inc.
30. National Asphalt Pavement Association.
31. National Association of Conservation Districts.
32. National Association of Home Builders.
33. National Association of Manufacturers.
34. National Association of Plumbing-Heating-Cooling Contractors.
35. National Association of Property Owners.
36. National Association of Realtors.
37. National Construction Industry Council.
38. National Constructors Association.
39. National Cotton Council.
40. National Council of Erectors, Fabricators, and Riggers.
41. National Crushed Stone Association.
42. National Electrical Contractors Association.
43. National Environmental Development Association.
44. National Forest Products Association.

[8] Federal Water Pollution Control Act of 1976, op. cit., p. 23.

45. National Governor's Conference.
46. National Grange.
47. National Parking Association.
48. National Realty Committee.
49. National Society of Professional Engineers.
50. National Solid Wastes Management Association.
51. National Utility Contractors Association, Inc.
52. National Water Resources Association.
53. North Dakota Water Users Association.
54. North Plains Water Conservation District No. 2.
55. Pacific Northwest Waterways Association.
56. Portland Cement Association.
57. Power and Communications Contractors Association.
58. Prestressed Concrete Institute.
59. Producer's Council, Inc.
60. River Authorities (Brazos, Guadalupe-Blanco, Lavaca-Navidad, Lower Colorado, Lower Neches Valley, Nueces, Sabine, San Antonio, and Trinity).
61. Sheet Metal and Air Conditioning Contractors National Association.
62. Society of American Registered Architects.
63. Southeast Colorado Water Conservation District.
64. Texas Water Conservation Association.
65. Texas Water Development Board.
66. Upper Colorado River Commission.
67. U.S. Chamber of Commerce.
68. Water Resources Congress.

STATEMENT OF JAMES C. CLEVELAND, M.C.

Mr. Chairman and Members of the Committee, as principal co-author of an amendment to resolve the conflict over wetlands protection and the proper exercise of Federal regulatory power, I welcome this opportunity to share my views with you.

This issue represents a classic challenge. How can we protect our wetlands without subjecting perhaps millions of Americans to excessive or burdensome intrusion of government into their lawful and legitimate pursuits?

The stakes are high. The issue concerns no less than the future of a vital and irreplaceable environmental resource, perhaps three-fourths of the wetlands in this country.

This is a priority objective and one we all share, but that fact is no way diminishes the difficulty of devising suitable means. These must represent a balanced, workable, practical and common-sense approach that takes into account the impact on other interests. And they must achieve acceptability and credibility to sustain support for our environmental protection efforts.

At the best of times this would be a difficult task. And these are not the best of times. Not with the climate of misinformation and emotion that has been generated over this and other areas of Federal regulatory activity. I understand it. I sympathize with it. And given the track record of the Federal bureaucracy I've been arm-wrestling with it for nearly 14 years, to some extent I share it.

No citizen in his right mind can be blamed for concern when told that the United States Army Corps of Engineers is going to occupy his back 40, treating earth turned over by his plough as a dredge deposit, regulating any stream he can't jump across, requiring a permit to put in a stock pond.

No Member of Congress—least of all this one—is about to let that happen.

Now you and I know this is a myth. This was never intended by the Congress, it was never intended by the Administration and it was never intended by the environmental groups pressing for the broadest interpretation of section 404 of Public Law 92–500. But look how far that myth has brought us. It has brought us to the point where legislation is before us to chop back Federal authority and possibly leave extensive areas of wetlands at the mercy of the developers. Legislation is before us which could conceivably prevent Federal regulation of activities creating a health hazard for sources of the public's drinking water.

Those myths were slow to grow, in terms of translating initial propaganda against a Federal court decision into legislative proposals. They'll be even slower in dying.

But our basic responsibility is to deal not with myths but with facts, devising a reasonable compromise and then exercising our responsibility for political leadership by providing the public assurances that we've done the job and protected their interests.

In the process, we must assure that regulation does not go too far. But we must also make sure we don't cut back too far.

On this basis, I authored, with the support of William H. Harsha, Ranking Minority Member of your counterpart Committee in the House, an amendment to meet the legitimate concerns raised with respect to farming, forestry and other interests facing at least the threat if not the reality of over-regulation, excessive or burdensome regulation.

First, it would meet head-on many of the concerns raised by exempting by statute a number of routine, normal farming and forestry practices from any regulation whatsoever. Significantly, it picked up certain safeguards built into the Corps' regulations specifically and expressly to put to rest the concerns of the agricultural community. But we didn't stop there. We added to the enumerated statutory exemptions the construction and maintenance of farm and stock ponds and irrigation ditches. We also exempted the maintenance, although not new construction or extension, of irrigation ditches. The truth of the matter is that these statutory exemptions in themselves would go far toward meeting the concerns of farming and forestry interests. By virtue of being built into statutory law, they would be immune from court challenge or administrative reversal. So much for the spectre of the Feds in the farm yard.

Our amendment recognized too that other activities—in addition to those exempted flat-out by statute—should not be subjected to the burdensome requirement of individual permits issued by the Corps. Accordingly, we provide statutory authority for issuance of general permits to provide blanket coverage for activities constituting minimal environmental impact. We thus met the problem cited by the Majority of the House Committee, in its discussion of the Breaux amendment, to the effect that general permits now provided by regulation might not withstand court challenge.

At this juncture, I doubt whether anyone can identify with precision the reach of the Corps' regulatory jurisdiction contemplated by the regulations, particularly when Phase III goes into effect. But I submit that the Cleveland-Harsha approach counters this uncertainty by exempting—before the fact—a broad range of

activities which are known, normal and routine. Plus which, the device of the general permit will have increasing applicability to activities of minimal environmental impact as Phase III goes into effect.

These benefits are not limited to activities covered either by statutory exemptions or general permits. While reducing the scope of individual permit activity, we would free the Corps from expense and diversion of manpower so that resources could be devoted to processing of individual permits for more environmentally significant practices and reducing the delays to the individual applicant.

So what happened to our amendment?

It was published in the Record and highlighted by letter to all House Members a full week before the matter came to the floor for debate and action. Thus it was made public and available for scrutiny and challenge. It was supported by all major environmental organizations and the White House, the latter after exhaustive review of the options.

During debate, floor opposition was virtually negligible. To the distinct credit of my friend Jim Wright and Committee colleagues supporting his substitute, they did not denigrate our amendment but instead focused on the court decision in question and the Corps' regulations. Indeed, in the Wright amendment they picked up the principles of statutory exemptions and general permits—though in excessively broad terms. And the problems specifically addressed by the Cleveland-Harsha amendment were cited in support of the Wright amendment.

Accordingly, the fact that the Wright amendment—with its surface similarities to Cleveland-Harsha and promotion as a remedy to the same problems—was adopted as a substitute presented first in no way discredits our amendment.

Today as on the day it was offered, it represents a responsible and reasonable compromise, avoiding the pitfalls of over reaction to a problem. It does not redefine the definition of navigable water. Specifically, it thus rejects the approach of curbing the jurisdiction of the Corps and creating an inconsistency of statutory scope within the total framework of P.L. 92–500. And it does not rely for its appeal on any illusory notions with respect to State Capability to assume responsibility for the program.

Just one final point on State delegation. As a matter of practicality as well as philosophy, I am personally committed to the principle of encouraging and enabling the states to assert the maximum authority and responsibility of which they are capable in the achievement of public policy objectives.

As Members of this Committee are well aware, that's not just a line I came up with for this occasion, in that I authored the State Certification amendment to the Title II construction grants program. That experience has demonstrated as nothing else could the fact that when we get into the field of Federal-State relations we can't legislate by label. In this particular case, that provision had the benefit of exhaustive scrutiny by the Public Works Investigations Subcommittee, and extensive consultation with the Environmental Protection Agency and—most important—with the water pollution control administrators in the various states themselves. Drafts and re-drafts were considered, to the point where the final product specifically enumerated the functions to be delegated, provided funding to do the job, and assured judicial review with respect to the Administrator's determination of state capability to assume delegated powers and responsibilities.

Similarly, I would have no objection to having this principle embodied in the Cleveland-Harsha amendment, with the caveat that standards and criteria be spelled out and Federal oversight assured. That, I submit, would be a far cry from the Wright amendment in its current form. Rather than the Wright amendment, a delegation modeled on the 402 discharge permit system would be far preferable.

In urging your consideration of the Cleveland-Harsha approach, I would suggest that I have some credentials in addition to authorship of State Certification. And I'm not talking about membership on the National Commission on Water Quality. What I am talking about is the fact that as much as any Member of the House, I have been outspoken in my opposition to the excesses of the Federal bureaucracy—both the reach of regulation and the manner of its exercise.

STATE OF VERMONT,
DEPARTMENT OF HIGHWAYS,
OFFICE OF THE COMMISSIONER,
Montpelier, Vt., June 22, 1976.

Hon. PATRICK J. LEAHY,
U.S. Senate,
Senate Building,
Washington, D.C.

DEAR SENATOR LEAHY: We are in favor of the passage of the Wright Amendment to H.R. 9560 which the House has redesignated as S. 2710. This bill would define "navigable waters" in part as "all waters which are presently used or are susceptible to use in their natural conditions or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark" and would be a great improvement over the existing three phase program which leads to unnecessary duplication of State and Federal permit procedures. We are already required by State Statute to coordinate all highway involvement with lakes, streams, or rivers with the Vermont Department of Water Resources and Vermont Department of Fish and Game. This bill would also provide flexibility since the Secretary of the Army and the Governor of this State could enter into a joint agreement concerning the regulation of discharges on those projects of extreme ecological and environmental importance (Sec. 17(f)) which are not on navigable waters, while at the same time not unnecessarily delaying other projects which are already subject to state controls.

We also feel that a more definitive state-by-state definition of "navigable waters" should be presented to eliminate any possible misunderstanding. We would recommend that in Vermont the "navigable waters" referred to in S. 2710 be defined as the Connecticut River, Lake Champlain, and Lake Memphremagog and their major tributaries up to their first dams.

The impact of section 404 of the Federal Water Pollution Control Act will be serious to our state and town road building program. It unnecessarily delays the advertising of projects for bid which is a critical factor in Vermont due to our short construction season. It has also added unnecessarily to our engineering and administrative costs.

For your information we are enclosing a copy of a letter with attachments that we are sending to Mr. Henrick Stafseth, Executive Director of the American Association of State Highway and Transportation Officials.

Very truly yours,

ARTHUR A. RISTAU, *Acting Commissioner.*

STATE OF VERMONT,
DEPARTMENT OF HIGHWAYS,
Montpelier, Vt., June 22, 1976.

HENRICK STAFSETH,
Executive Director, American Association of State Highway and Transportation Officials, Washington, D.C.

DEAR MR. STAFSETH: As requested, we are enclosing a copy of the questionnaire on permits for section 404 of the Federal Water Pollution Control Act as distributed in your mailing of June 11, 1976. We feel that S. 2710 which incorporates the Wright Amendment to H.R. 9560 and defines "navigable waters" in part as "all waters which are presently used or are susceptible to use in their natural conditions or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark," would be a great improvement over the existing three phase program, which leads to unnecessary duplication of State and Federal permit procedures. In Vermont, we are already required by State Statute to coordinate all highway involvement with lakes, streams, or rivers with the Vermont Department of Water Resources and Vermont Department of Fish and Game. This bill would also provide flexibility since the Secretary of the Army and the Governor of this State could enter into a joint agreement concerning the regulation of discharges on these projects of extreme ecological and environmental importance (Sec. 17(f)) which are not on navigable waters, while at the same time not unnecessarily delaying other projects which are already subject to state controls.

We also feel that a more definitive state-by-state definition of "navigable waters" should be presented to eliminate any possible misunderstanding. We would recommend that in Vermont the "navigable waters" referred to in S. 2710 be defined as the Connecticut River, Lake Champlain, and Lake Memphremagog and their major tributaries up to their first dams.

We have been working with the Corps of Engineers on a general permit for minor roadway modification projects for the existing three phase program. However, the general permit program will still require notification and approval by the Corps of Engineers before work can be initiated.

For your information, we are enclosing a copy of a letter that we are sending to Senator Leahy and Senator Stafford.

Thank you for your invitation to comment on this bill.

Very truly yours,

ARTHUR A. RISTAU, *Acting Commissioner.*

Enclosure.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

QUESTIONNAIRE ON PERMITS FOR DISCHARGE OF DREDGED OR FILL MATERIAL UNDER SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. Please list the number of permits under sec. 404 of the FWPCA which you anticipate will be required for highway projects under Phase II of the Corps' regulations, which covers primary tributaries of navigable waters, wetlands adjacent to primary tributaries, and lakes of 5 acres or more.

Eighty four—This is an estimate based on the following:

(1) Status Report, applications to the Corps of Engineers and Coast Guard (attached).

(2) Town Highway Bridge Program.

(3) State System Bridge Improvement Program.

Since Phase II applicability determinations for projects in 2 and 3 have not been completed, this is an estimate.

2. Please describe, briefly, any activities for which you have sought general permits.

Minor Roadway Modification Projects.

(1) Culverts—Fills less than 25cy to ordinary high water.

(2) Small Bridges—Fills less than 500cy to ordinary high water and also with less than 400 feet of shoreline alteration.

(3) Shoulder Widening—Less than 3cy of fill per linear foot of existing roadway.

See Attachments: (1) General Permit Clarifications; (2) Jurisdictional Map; (3) Proposed General Permit.

3. Please relate the status of all applications for general permits.

(1) The Corps of Engineers prepared Proposed General Permit #GP-76-002.

(2) On May 24, 1976, the Proposed General Permit was discussed with responsible state agencies.

(3) Pending approval, the Proposed General Permit is to be revised.

(4) Prior to issuance of the General Permit, there is to be an additional commenting period for the Revised Proposed General Permit.

To: All district engineers via R. O. Munn, Assistant Chief Engineer.
From: E. R. Waibel, Acting Hydraulics Engineer.
Date: May 25, 1976.
Subject: General permit for activities in navigable waters.

On May 24, 1976 R. O. Munn, W. M. Smith, A. D. Aldrich and I attended a meeting concerning the above subject. This meeting was conducted by Bill Lawless of the New England Division of the Corps of Engineers. A copy of the General Permit, including recommended changes, is enclosed. A description of the proposed work, including location map and quantities, would still have to be forwarded to the Corps of Engineers. Work will not be allowed to begin until authorized by the Corps. Although the criterion for issuance of the General Permit was prepared by the New England Division, the same criterion will apply for issuance of permits by both divisions. General permit applications will still have to be made to either the New England or New York Division of the Corps of Engineers (See enclosed jurisdictional map). The Corps also plans to prepare a check list which will simplify General Permit applications. Before this revised General Permit may be issued, there must be an additional commenting period.

The following clarifications are also a result of this meeting:

1. Clean fill refers to granular material which does not contain organics, rubber, or rubbish.

2. The general limit measurement referred to for (1) Culverts; (2) Small Bridges and (3) Shoulder Widening, refers to ordinary high water.

3. The applicant will contact the District Highway Engineer. The District Highway Engineer will have the added responsibility of notifying the Department of Water Resources and Fish and Game Department of all individuals applying for General Permits for minor roadway modifications.

4. We will retain our present definition of a bridge (a structure with a span over 6'); i.e., a 78" CGMPP would be covered under the Corps of Engineers' requirement No. 2 for small bridges.

5. The 400 feet of shoreline referred to under 2, Small Bridges, also refers to lakes, ponds, rivers, brooks, and streams and does not include bridge width, (i.e. a project with 100' of channel work above and below a bridge on both sides of a brook would be the limit for application for a General Permit.)

6. Channel relocations are not covered under a General Permit, however, minor straightening of channels is covered.

7. Special condition 'C' refers to each wetland in addition to the other requirements (i.e. if there were three wetland infringements on a project, each would have to meet this requirement).

I have consistently advocated elimination or reduction of red tape, citing damage to vital, job-creating programs in housing, water pollution control and highways. Particularly with respect to highways and I were the scars to prove it. In the same vein, I have been leery of Federal land-use controls, particularly any provision that would encourage states to override local land-use determinations. And I have consistently supported the legitimate interests of the forestry industry in my state, a large portion of which is accounted for by the White Mountain National Forest, by opposing ill-considered wilderness proposals.

Against this background, I urge you to consider the approach authored by Bill Harsha and myslef, and hope you will share the conviction that this approach—the principles it embodies—goes far enough but not too far, and will do the job.

EXECUTIVE OFFICE OF THE PRESIDENT,
COUNCIL ON ENVIRONMENTAL QUALITY,
Washington, D.C., June 18, 1976.

Hon. EDMUND MUSKIE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MUSKIE: The recently passed amendments to the Federal Water Pollution Control Act (FWPCA) regarding the extent of Corps of Engineer's regulatory authority under Section 404 raise serious environmental policy issues of concern to the Council on Environmental Quality. I want to take this opportunity to bring these concerns to your attention.

As stated in two letters of mine to Congressmen Leggett and Forsythe, enclosed, the Council strongly opposed the amendment to H.R. 9560 offered by Congressman Breaux which redefined the term "navigable waters." We did so on the grounds that it would undermine many of the goals and policies declared in the FWPCA, that the amendment was unnecessary and the the Breaux amendment itself was not subjected to hearings or other public review by Congress. The amendment was, of course, not supported by the administration. Instead the Council, in accordance with the administration's position, has supported the Cleveland-Harsha amendment to H.R. 9560 that would have established clear permit exemption for a range of normal farming and silvicultural activities while retaining federal regulatory authority over those activities that would most significantly affect the nation's water quality and water resources.

Unfortunately the House has accepted Congressman Wrright's amendment to H.R. 9560 that would substantially curtail this essential federal regulatory authority. This new amendment would restrict the federal Section 404 permit program to coastal wetlands and to waters that are or might be used to transport interstate or foreign commerce.

We strongly believe that such an amendment, if accepted by the Senate, would constitute a drastic step backwards in the federal efforts under the FWPCA "to restore and maintain the chemical, physical and biological integrity of the nation's waters." Many hundreds of miles of small waterways, and the vast inland wetland resources of this nation that provide natural pollution control, will be unregulated and unprotected.

The Council is of the opinion that the Section 404 Program should be given a reasonable chance to develop as presently constituted without creating new and possibly more onerous problems. We ask the Senate carefully to consider the value of this existing program, particularly when such important ecological and economic resources are at stake.

Please let me know if the Council can be of further assistance in this matter.

Sincerely,

RUSSELL W. PETERSON, *Chairman.*

EXECUTIVE OFFICE OF THE PRESIDENT,
COUNCIL ON ENVIRONMENTAL QUALITY,
Washington, D.C., May 19, 1976.

Hon. ROBERT L. LEGGETT,
Chairman, Subcommittee on Fisheries and Wildlife Conservation and the Environment, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR BOB: The Council appreciates the opportunity to comment on H.R. 9560 and the amendment offered by Congressman John Breaux which redefines the term "navigable waters" in section 404 of the Federal Water Pollution Control Act. The Council strongly opposes the Breaux amendment, for several reasons.

First, the amendment would undermine many of the goals and policies declared in the Federal Water Pollution Control Act. Section 101(a) states, "the objective of this act is to restore and maintain the chemical, physical and biological integrity of the nation's waters." The proposed amendment, however, would remove existing federal control over an estimated 85% of the nation's water and wetland resources. It would permit unrestricted dumping of contaminated dredge spoils and fill materials into any waters except the few which are currently used for commercial transportation. At the same time the amendment would drastically reduce federal authority to manage the wetland resources that have critical ecological and economic importance to the nation. In short, the amendment would eliminate an effective program of regulating new environmental insults to the quality of the nation's waters and wetlands.

Second, the amendment is unnecessary. The Corps of Engineers has adequate authority both to prescribe regulations which reasonably regulate dredge and fill activities in waters and wetlands, and to amend its regulations if they appear overly broad or administratively cumbersome. In fact, the Corps' July 25, 1975 regulations are stated to be *interim* regulations pending development of a final program with reasonable scope that can be implemented in an orderly manner. In the development of its dredge and fill program, the Corps has made considerable efforts to obtain public review of, and comments on its program proposals. In view of these substantial and ongoing efforts to elicit and respond to public comment, we believe that congressional redefinition of the program is not needed and would, in fact, be premature.

Third, the Breaux amendment itself has not been subject to hearings or other public review by Congress. Such a drastic change in the scope of the Corps' 404 program should not be undertaken so abruptly and with so little opportunity for public comment.

In summary, the Council believes that the section 404 program as presently constituted should be given a chance to prove its capability to meet the needs on which it is focused without creating new problems. There should not be precipitous action when important ecological and economic resources are at stake.

Please let me know if the Council can be of further assistance.

Sincerely,

RUSSELL W. PETERSON,
Chairman.

DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D.C., August 17, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
U.S. Senate.

DEAR MR. CHAIRMAN: As requested in your letter of July 15, 1976, we are pleased to provide the views of the Department of Agriculture on the interpretations and implementation of section 404 of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500).

The Department has expressed many concerns with the Corps of Engineers' July 25, 1975, regulations including the Federal land-use control aspects and the potential for adverse impacts on the sustained production of food, fiber, and forest products.

The Administration's proposed legislative change to section 404, which was transmitted to the President of the Senate and Speaker of the House of Representatives by the Secretary of the Army, Martin R. Hoffmann, on August 11, 1976, recognizes this Department's concerns about the adverse impacts on the production of food, fiber, and forest products. Proposed subsection (o) would exempt normal farming, ranching, and forestry activities from the discharge permit requirements of section 404. Although the proposal retains the broad definition of navigable waters, subsection (p) would eliminate the need for permits for the discharge of dredged and fill materials on lands currently used for farming, ranching, and forestry if the discharge is directly related to the production of food, fiber, or forest products.

The Administration's proposal does not address all concerns that have been expressed by this Department. Nevertheless, in our view the proposal strikes a reasonable balance between the Nation's efforts toward water quality improvement and its need for sustained production of food, fiber, and forest products. The Department, therefore, supports prompt enactment of the proposed amendments.

The Office of Management and Budget advises that the presentation of this report is in accord with the program of the President.

Sincerely,

RICHARD E. BELL,
Acting Secretary.

THE SECRETARY OF TRANSPORTATION,
Washington, D.C., July 28, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
U.S. Senate, Washington, D.C.

DEAR CHAIRMAN RANDOLPH: This letter is in response to your request for the Department's views on the proposed amendment to Section 404 of the Federal Water Pollution Control Act (FWPCA) as contained in Section 16 of S. 2710. This amendment would significantly alter the permit program administered by the Corps of Engineers under the present Section 404.

As you are quite aware, Section 404 has broad and important application to a wide variety of programs, and involves many Federal agencies. We are presently in the process of discussing the amendment with other involved Federal agencies, with the objective of understanding better their perspective and the implication of any amendment on their programs. At this time we can offer only general comments about those concerns that are especially important to the programs of the Department of Transportation.

We believe that the following issues should be addressed in any determination on this issue:

(1) We must make a concerted effort to avoid any unnecessary and costly duplication in our governmental processes. As presently written, Section 404 presents the possibility of substantial duplication for highway, rail, and other transportation projects. Under the present Section 404 a federal or federally assisted transportation project that has been the subject of an environmental impact statement that complies with the requirements of the National Environmental Policy Act and that also addresses the water quality impact of a project is once again reviewed by the Corps pursuant to Section 404. This could involve a great duplication of effort by federal and state agencies, and could also impose additional costs and delays upon applicants. This problem may occur in any of the areas under this Department's jurisdiction whether it be a highway, rail, aviation, or water project.

By way of example, the Federal Highway Administration recently conducted a survey of State highway agencies to determine present and anticipated permit activities and problems. This survey indicated that, as of June 1, 540 permit applications for highway work have been submitted to the Corps of Engineers since July 1, 1975, and only 90 permits have been issued. It is anticipated that 1,700 additional highway-related permits will be needed annually under Phase II of the existing Section 404 regulations. The preparation of a permit application requires about 40 man hours. This represents 2,240 man weeks of highway agency

time just to prepare permit applications for Phases I and II. Several State highway agencies have permit applications which have been outstanding for up to 8 months, and in some cases, the Corps of Engineers does not issue a Public Notice of the application for a period of 5 to 6 months. As the program enters Phase II and the number of permit applications increase, delays will undoubtedly become longer and begin to disproportionately influence program scheduling. We believe that there must be closer coordination between the NEPA and Section 404 processes.

(2) Although we believe that the present Section 404 may be in need of change, we also very firmly believe that any amendment must be accomplished in such a way as to preserve the benefits and protections of the FWPCA and that we should not adopt a procedure that will affect adversely the quality of our nation's waters and wetlands.

(3) The approach of using general permits offers some significant potential for alleviating some of the problems encountered to date with Section 404, but to date this potential has not been developed. The only general permit which has been issued for highways severely limits fills for culvert and bridge construction. Since administration of the permit program is delegated to 37 Corps district offices, a wide divergence exists in implementing the general permit provision. Some of the Corps districts have indicated that no general permits will be issued for highway work, while others have placed severe limitations on the scope of work and geographic coverage of proposed general permits.

(4) We also believe that any amendment should not add to the existing confusion about the definition of navigable waters and the jurisdiction of the various agencies on navigable waters. As you may be aware, we are presently working to review and analyze the various definitions of navigable waters. The definition proposed by Section 16 is not the traditional definition of navigable waters, and the adoption of Section 16 would result in having two definitions of navigable waters in the FWPCA, neither of which is the traditional one. Furthermore, we would hope that any amendment would be carefully coordinated with other sections of the FWPCA, such as Section 402, and avoid complicating the interpretation of other acts such as the Rivers and Harbors Act. Under present law there may be instances where a federal permit is required for a bridge but Section 16, as presently drafted, would not require a permit for the discharge of materials from the bridge construction site. Similarly, if Section 16 were adopted the discharge of pollutants (defined to include dredged spoil, rock, and sand) would still be regulated in the broad waters of the United States pursuant to Section 402 but the discharge of dredged and fill material would only be regulated in a narrow class of waters.

Again, we hope that these comments are helpful.

Sincerely,

WILLIAM T. COLEMAN, Jr.

THE RESOURCES AGENCY OF CALIFORNIA,
Sacramento, Calif., July 15, 1976.

Mr. JOHN FRESHMAN,
Senate Public Works Committee,
Dirksen Senate Office Building,
Washington, D.C.

DEAR MR. FRESHMAN: I have enclosed for your information a copy of an analysis of Section 16 of S. 2710. As the analysis points out, there are serious ambiguities in the language of that section. Most serious, perhaps, is the redefinition of "navigable waters" subject to federal jurisdiction, because the definition omits historically navigable waters. This could result in significant reduction of the areas now subject to federal jurisdiction under Sections 9 and 10 of the Rivers and Harbors Act of 1889. Ambiguities in the Wright amendment may affect enforcement of other sections of the Federal Water Pollution Control Act, insofar as they relate to pollution resulting from the discharge of dredged and fill materials. The exemption of federal projects is ill-advised because there is no certainty that an EIS or EAR will result in the same environmental protection now afforded by Section 404.

The attached letter to Senator Cranston sets forth the State's position with respect to the Wright Amendment and Section 404. We believe that the FWPCA should not be substantially amended to weaken Section 404.

Sincerely,

JOHN KRAMER,
Assistant to the Secretary.

Enclosures.

THE RESOURCES AGENCY OF CALIFORNIA,
Sacramento, Calif., July 13, 1976.

Hon. ALAN CRANSTON,
U.S. Senate, Senate Office Building,
Washington, D.C.

Subject: Section 16 of S. 2710.

DEAR SENATOR CRANSTON: Section 16 of S. 2710, also known as the "Wright Amendment", would substantially impair federal protection of wetlands. Section 404 of the Federal Water Pollution Control Act of 1972 requires a Corps of Engineers' permit for the disposal of dredge spoil or fill materials in the navigable waters of the United States. *Natural Resources Defense Council* v. *Calloway* held that Section 404 must be construed as broadly as possible under the Constitution to apply to the waters of the United States. In response to the *NRDC* v. *Calloway* case, the Corps of Engineers adopted regulations on July 25, 1975, which include a broad definition of navigable waters. The Resources Agency has supported the approach taken by these regulations.

Section 16 of S. 2710 would amend Section 404 of the Federal Water Pollution Control Act of 1972 to require U.S. Army Corps of Engineers' permits for the disposal of dredge spoil or fill material only in tidal waters, in inland waters carrying or capable of carrying commercial navigation, and in "adjacent wetlands". Section 16 would also remove substantial areas from protection under Sections 9 and 10 of the Rivers and Harbors Act of 1899. I have enclosed for your information an analysis of Section 16 which was prepared by John Kramer, a member of the Resources Agency staff.

As the analysis shows, the effects of Section 16 on the administration of the Rivers and Harbors Act of 1899 and the Federal Water Pollution Control Act could be significant because it contains serious ambiguities, and its effect on existing law is uncertain. Among the uncertainties discussed in the enclosed analysis are the following:

1. The definition of "navigable waters" for which permits would be required for the discharge of dredge spoil or fill material excludes historically navigable waters and historical marshlands. This would remove Corps' jurisdiction over fill activities from substantial amounts of former marshlands which would be subject to tidal action today but for the construction of dikes or levees. Historically navigable inland waters could also be so exempted from the requirements of Section 9 or 10 of the Rivers and Harbors Act.

2. Section 16 could substantially restrict the application of Section 404, notwithstanding recent federal court opinions that Section 404 and other provisions of the FWPCA should be construed broadly.

3. The effect of Section 16 on other water quality control programs is uncertain. It could impair the ability of the Corps and the EPA to regulate environmental pollution resulting from the disposal of dredged or fill material under other applicable sections of the Federal Water Pollution Control Act.

4. Section 16 would exempt many federal projects and federally financed projects from the permit requirements of Section 404.

5. The Corps could delegate regulatory authority over "adjacent wetlands" to states, but the Corps would be required to regulate in "navigable waters". Bifurcating regulatory authority over a water body and its adjacent wetlands is ecologically unsound.

6. Section 16 provides no adequate standards for delegating regulatory authority to the states.

I would like to call your attention to a suggested amendment to Section 404 which is set forth on the last page of the analysis. If clarification of Section 404's application to agriculture, ranching and silviculture is found to be necessary, we believe that the approach taken by the suggested amendment is preferable to Section 16. The suggested amendment avoids Section 16's ambiguities which could impair water quality programs mandated by other sections of the FWPCA.

Section 16 was proposed and amended into S. 2710 without the benefit of public hearings. We understand that the Senate Public Works Committee may hold hearings later this month, and we welcome this development. The Federal Water Pollution Control Act should not be drastically altered without the benefit of public hearings and careful drafting. We support the current requirements of Section 404 and believe that they should not be weakened. The authorizations proposed in S. 2710 should be adopted without amending Section 404.

Sincerely,

GARY D. WEATHERFORD,
Deputy Secretary for Resources.

Enclosure.

Analysis of Section 16 of S. 2710—The "Wright Amendment"

(By John Kramer)

LEGISLATIVE BACKGROUND

S. 2710 extends certain grant authorizations under the Federal Water Pollution Act of 1972. Section 16 of that bill incorporates an amendment to H.R. 9560 proposed on the House floor by Congressman James C. Wright of Texas. H.R. 9560 was an authorizations bill similar to S. 2710.

When H.R. 9560 was heard in the House Public Works Committee, an amendment proposed by Congressman Breaux of Louisiana was adopted. The Breaux amendment would have severely restricted Corps of Engineers regulation of dredge or fill activities by limiting jurisdiction to tidal waters and waterways carrying interstate commerce. When H.R. 9560 was debated in the House, Congressman Wright offered another amendment retaining the language of the Breaux amendment, but extending Corps jurisdiction to adjacent wetlands. H.R. 9560, including the Wright Amendment, was then amended into S. 2710 and passed out by the House on June 3, 1976. A copy of the Wright Amendment is attached. This analysis considers some of the effects of the Wright Amendment and some of the ambiguities in its language.

The declared purpose of the Wright Amendment to Section 404 of the Federal Water Pollution Control Act of 1972 is to limit Corps permits for disposal of dredged or fill material to navigable waterways and adjacent or contiguous wetlands. However, it also alters the general federal definition of navigability, and it also limits the application of the Rivers and Harbors Act of 1899 and other sections of the Federal Water Pollution Control Act.

BACKGROUND FACTS

As a part of the comprehensive program for the protection of the nation's water resources set forth in the Federal Water Pollution Control Act of 1972, Congress required regulation of dredge or fill activities in the nation's waters. Section 404 of the FWPCA requires a permit from the U.S. Army Corps of Engineers for the disposal of dredged or fill material in the navigable waters of the United States.

The Corps originally interpreted Section 404 to apply only to tidal waters and inland waters that carry, could carry or did once carry commercial navigation. The National Resources Defense Council successfully challenged this interpretation in *NRDC* v. *Calloway*. The District of Columbia District Court held on March 27, 1975, that Section 404 must be construed as broadly as possible under the Constitution to apply to "the waters of the United States," which is the definition of "navigable waters" in Section 502(8) of the FWPCA. On May 6, 1975, the Corps proposed four alternative sets of regulations which ranged from broad to limited interpretations of Section 404. The Corps of Engineers' press release accompanying these proposed regulations announced that a broad interpretation of Section 404 would require Department of the Army permits for "the rancher who wants to enlarge his stock pond, the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wishes to protect his land from stream erosion". In commenting on these proposed alternative regulations, the State of California took the position that broader interpretation of Section 404, as required by the *NRDC* v. *Calloway* case, was possible without the extreme results suggested by the Corps' press release.

During July of 1975, the Water Resources Subcommittee of the House Public Works Committee held oversight hearings on the four alternatives proposed by the Corps. The Resources Agency of State of California testified at these hearings in support of broad federal jurisdiction under Section 404 and urged an interpretation of the term "navigable waters" similar to that adopted by the EPA under Section 402 of the FWPCA. Correcting the May 6 press release, Assistant Secretary of the Army Victor Vesey testified that "We must dispel fallacies that the Corps is proposing to regulate a farmer ploughing his field." The Committee did not propose any changes to Section 404.

On July 25, 1975, the Corps adopted the regulations which are now in effect. These regulations establish a workable and reasonable program for implementation of Section 404. Routine agricultural, silvicultural and ranching activities, such as plowing, cultivating, seeding, and harvesting, are *presently* exempted from the definition of "fill material" subject to regulation. Routine maintenance of dikes and levees and emergency repairs is also exempted. The regulations also provide for

a system of general permits to be issued by the Corps for routine activities which have only a minimal individual and cumulative adverse impact on the environment. Once a general permit is issued, activities within an authorized category require no further authorization.

The July 1975 regulations define "navigable waters" subject to Corps jurisdiction to include tidal areas and contiguous or adjacent wetlands, and inland rivers, lakes and streams shoreward to their ordinary high water mark. This definition includes natural lakes of more than five acres in area and rivers and their tributaries upstream to the point where the flow is normally less than 5 c.f.s. Wetlands contiguous or adjacent to such inland waters would also be included.

The regulations provide for a "phase in" of the jurisdiction just described in three steps over a two-year period. Under Phase I, the Corps immediately assumed jurisdiction over tidal waters and inland navigable waters already subject to Corps' jurisdiction. Phase II will become effective on July 1, 1976, and will extend jurisdiction to the primary tributaries of such navigable waters, to contiguous or adjacent wetlands and to lakes larger than 5 acres. Phase III would extend jurisdiction to all other waters subject to Corps' jurisdiction under the regulations.

The Corps' regulations give the states an opportunity to assume the primary role in regulating disposal of dredged or fill material by providing that the Corps will generally defer to state environmental regulation. In the absence of overriding national factors of the public interest, the Corps will defer to the state where the state program follows environmental goals and policies similar to those set forth in federal statutes such as NEPA. Furthermore, the regulations allow joint state-federal permit applications and hearings.

The Resources Agency of the State of California has supported the regulatory program set forth in the July 25, 1975 regulations. The balance of this paper will describe (a) the possible effects of the Wright Amendment on the system of regulation which the Corps has long administered under Sections 9 and 10 of the Rivers and Harbors Act of 1899 (dealing generally with work in "navigable waters of the United States"); and (b) the effect of the amendment on the system of regulation of dredge or fill activities in the "waters of the United States" under Section 404 of the FWPCA. This discussion will include an estimate of the specific effects the Wright Amendment would have on waters within the State of California.

A. The Rivers and Harbors Act of 1899

1. *Summary of the Act.*—Section 9 of the Rivers and Harbors Act of 1899 (30 Stat. 1151; 33 U.S.C. 401 et seq.) prohibits construction of any dam or dike across any "navigable water of the United States" in the absence of congressional consent and a permit from the Corps of Engineers. Section 10 prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Section 11 allows the Corps to establish "harbor lines" beyond which no structures or deposits may be placed without the consent of the Corps. Section 13 is commonly known as the "Refuse Act". It prohibits discharging any refuse matter, other than liquid sewage, in the navigable waters and their tributaries.

2. *The Wright Amendment may remove historically navigable waters from jurisdiction under the Rivers and Harbors Act, contrary to judicial precedent and prior administrative construction providing that such waters remain subject to the federal navigational servitude.*—Subsection d(1) of the Wright Amendment would define "navigable waters" as waters which are *presently* used or which are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce including tidal waters shoreward to their high water mark (mean higher high water mark on the West Coast). Jurisdiction would also extend to wetlands which are contiguous or adjacent to navigable waters as restrictively defined by the amendment.

It appears that the Wright Amendment could remove historically navigable waters from Corps of Engineers' jurisdiction over alterations or obstructions of navigable waters under Sections 9 and 10 of the Rivers and Harbors Act of 1899 where dredged or fill material is deposited in an area previously inundated by navigable waters susceptible to use as a means of carrying interstate commerce, or in an area previously subject to the ebb and flow of the tide but now protected from the effects of the tides by dikes or other barriers. Regulations adopted by the Corps in 1972 define waters subject to Section 10 jurisdiction to include inland ". . . waters *that have been used in the past,* are now used or are susceptible to use as a means to transport interstate commerce landward to their ordinary high water mark and up to the head of navigation". (Emphasis added) Tidal waters and estuarine and tidal marshlands, which were at anytime subject to inundation by mean high tide (mean higher high tide on the West Coast) are also subject to jurisdiction.

It is clear that under the commerce clause of the United States Constitution the Federal "navigational servitude" includes waters which were once navigable or subject to tidal action. *United States* v. *Appalachian Electric Power Company*, 311 U.S. 377 (1940), holds that the Federal navigational servitude applies to a river even where it is dammed off and no longer capable of carrying interstate commerce. The court said:

"In our view, it cannot properly be said that the Constitutional power of the United States over its waters is limited to control for navigation. By navigation, respondent means no more than the operation of boats and improvements of the waterway itself. In truth, the authority of the United States is the regulation of commerce on its waters. Navigability in the sense just stated is but a part of this whole. Flood protection, watershed development, recovery of the cost of improvement through utilization of power are likewise part of the commerce control . . . The point is that navigable waters are subject to national planning and control in the broad regulation of commerce granted the Federal Government. The license condition to which objection is made have an obvious relationship to the exercise of the commerce power. Even if there were no such relationship, disciplinary power of Congress over navigable waters would empower it to deny the privileges of constructing an obstruction in those waters. It may likewise grant the privilege on terms . . . The Congressional authority under the commerce clause is complete unless limited by the Fifth Amendment". 311 U.S. 377, 401–402.

3. *Substantial amounts of former tidelands could be removed from protection under Section 10 in Northern California.*—In the San Francisco Bay area substantial areas have in the past been diked off from the Bay. Some of the areas behind the dikes are wet, some are dry part of the year and wet during winter months, while others are kept dry most of the time by pumping. Where the areas have not been filled, they are below the plane of mean higher high tide. In other words, but for the dikes, these areas would still be inundated by tidal action today. Under Public Notice 71–22 and 71–22(a) issued by the Corps' San Francisco District, Section 10 permits are required for all work below the mean higher high tide line, including work in unfilled portions of the interior of diked areas.

Federal jurisdiction over former tidelands has been upheld by the United States District Court in San Francisco. In *Leslie Salt Co.* v. *Froehlke* (No. 73 224 WTS; 1976) the Court held that Corps of Engineer's jurisdiction extends to land behind dikes. The case holds that no permits are required for dikes which were in existence prior to the time that the Corps promulgated Public Notice 71–22, but permits must be obtained for any new structures or fill in such lands. *United States* v. *Stoeco Homes*, 498 F.2d 597 (1974), also recognized the application of a Federal navigational servitude to former tidelands, but it held that the servitude had long since been surrendered as to former tidal marshland supporting streets and houses. The Court described this as "fast land" and "improved solid upland". The Court specifically limited its holdings "to marshlands which had become fastland prior to the change in policy of the Corps of Engineers". 489 F.2d at 611. The *Leslie Salt Co.* v. *Froehlke* case holds that *Stoeco* does not apply to former tidelands which are still below mean higher high water but not now subject to the ebb and flow of the tide.

It is difficult to gage the full extent to which the Wright amendment would curtail the Federal navigational servitude, but it would appear to be inconsistent with *Leslie Salt Co.* v. *Froehlke* and other cases applying the Rivers and Harbors Act of 1899 to historic tidelands. It would also appear to undercut precedents such as *U.S.* v. *Appalachian Electric Power Company, supra*, at least as those precedents apply to the 1899 Act.

There is no comprehensive survey establishing the total acreage of tidal marshlands and former marshlands now removed from tidal influence. A paper accompanying a map of the historic marshlands in San Francisco Bay, prepared by Donald Nichols and Nancy Wright contains some good estimates. In the mid-1800's the water surface of San Francisco Bay, to the outer marsh edge covered 476 square miles. Today, the water surface is 423 square miles. Historically, marshlands marginal to the Bay covered as much as 313 miles. Today, marshlands consist of 125 square miles. Salt evaporation ponds cover 63 square miles (40,000 acres) of former marshland. Of the remaining 125 square miles, a substantial, but unknown, amount of marshland is diked off and not subject to the direct influence of the tides. For example, much of the Suisun marsh is inundated by salt or brackish water, but much of its surface area is regulated by dikes. Land belonging to gun clubs may be dry in the summer and inundated during the fall and winter. A 1962 report of the California Department of Fish and Game esti-

mates that there are 49,500 acres of leveed land in San Pablo Bay and 63,100 acres of such land in Suisun Bay. There are at least 10,000 acres of leveed marshland outside San Francisco Bay, located at Humboldt Bay, San Diego Bay, Elkhorn Slough, and Bolsa Chica Lagoon.

The Wright Amendment could remove a substantial portion of the above areas from jurisdiction under Section 10 and Section 404. Section 10 would no longer apply to historic marshland, and it would be difficult to characterize diked off land which is not inundated or supporting aquatic vegetation as "waters" or "adjacent wetlands". The application of Section 10 and Section 404 to managed wetlands and saltponds would be uncertain.

4. *The Wright Amendment would not retain jurisdiction over freshwater wetlands contiguous or adjacent to tidal areas.*— Subsection (d)(2)(A) defines coastal wetlands as areas periodically inundated by saline or brackish waters. This definition excludes fresh water wetlands which may be adjacent to tidal areas. Some of the former marshlands which have been diked off are periodically inundated by rainwater runoff so that at least during parts of the year a fresh water wetland may exist adjacent to tide water. These areas provide valuable habitat and resting areas for wild fowl.

B. Section 404 of the Federal Water Pollution Control Act of 1972

1. *Water now covered by Section 404.*—The regulations adopted by the Corps of Engineers on July 25, 1975, require a permit for the disposal of dredged or fill material in "navigable waters". Section 502 of the FWPCA defines "navigable waters" simply as "the waters of the United States, including the territorial seas". The July 1975 regulations provide that waters of the United States include:

(a) those waters to which the Rivers and Harbors Act of 1899 applies;
(b) all coastal wetlands, mudflats, swamps, and similar areas that are contiguous or adjacent to other navigable waters;
(c) navigable rivers, lakes and streams;
(d) artificially created channels and canals;
(e) tributaries of navigable waters;
(f) interstate waters:
(g) interstate rivers, lakes and streams utilized by interstate travelers for recreational purposes, for the removal of fish sold in interstate commerce, for industrial purposes by industries in interstate commerce, or in the production of agricultural commodities sold or transported in interstate commerce;
(h) freshwater wetlands contiguous or adjacent to other navigable waters;
(i) other waters and perched wetlands which the District Engineer determines necessitate regulation for the protection of water quality.

This definition is similar to the EPA definition of navigable waters promulgated under Section 402 of the FWPCA.

The Wright Amendment, by comparison, would restrict Section 404 jurisdiction essentially to coastal tidelands and rivers carrying commercial shipping and to their "adjacent wetlands". This omits coastal wetlands not contiguous or adjacent to tidelands, freshwater wetlands which are contiguous or adjacent to tideland waters, and freshwater wetlands which are not contiguous or adjacent to other inland waters now covered by the Section 404 regulations.

2. *The effect of inland waters now covered in California.*—A major portion of California's wetlands—approximately 60 percent—consist of freshwater and inland marshes which are adjacent to streams not now "navigable" (in the narrow sense of floatability) or which lie above the ordinary high water mark of navigable streams. These areas are covered under the July 1975 regulations but would be withdrawn from regulation under the Wright Amendment.

Enactment of the Wright Amendment may thus eliminate Section 404 jurisdiction from most of the wetlands in the San Joaquin Valley which amount to approximately 100,000 acres, largely within the grasslands area. Here there are hundreds of natural permanent ponds and marshes which provide one of the most important water habitats in California. In the Sacramento Valley, Section 404 jurisdiction could be removed from approximately 50,000 acres of privately owned wetlands, the largest tract being in the Butte Basin. The Sacramento and San Joaquin Valleys are major wintering areas for waterfowl. Approximately 40,000 privately owned acres of marshes, lakes and potholes within the Klamath Pit Plateau could be removed from Corps' jurisdiction. Furthermore, the Wright Amendment would remove Corps' jurisdiction over approximately 1,000 lakes and reservoirs which cover approximately 800,000 acres. This would include the Salton Sea and Clear Lake. Fills for real estate developments, marinas and com-

mercial establishments have already destroyed considerable marshland along the shores of Clear Lake with consequent impairment of waterfowl and bass spawning habitat.

3. *The Wright amendment may remove all federal regulation of pollution from dredge or fill material discharged in waters other than coastal waters and ship channels.*—a. Regulation under other sections of the FWPCA may be impeded. Subsections (h) and (e) have serious ambiguities. Both could result in a substantial number of discharges being entirely removed from regulation under any provision of the FWPCA. Subsections (h) and (e) contain language which states that the discharge of dredge or fill material in waters other than navigable waters (as restrictively defined) "is not prohibited, by, or otherwise subject to regulation under this Act". These sections could cause serious difficulties in interpreting other sections of the FWPCA. If a discharge of dredged or fill material contains pollutants such as heavy metals, pesticides or salts, it may be difficult to regulate it. The term "this Act" may exempt such discharges from other sections of the FWPCA such as Section 307 and 401 and 402.

b. Other sections of the Rivers and Harbors Act of 1899 would not apply. Subsection (e) would exempt discharges in non-navigable waters (under the new definition) from regulation under the Rivers and Harbors Act of 1899. Such discharges would be exempted in historically navigable waters, since they are not included in the definition of "navigable waters" under the Wright Amendment. Notwithstanding the holding of the old *appalachian Power* case and related cases which impose the federal navigation servitude on historically navigable waters, Subsection (e) gives color to the argument that historically navigable waters could be filled or dammed without a Corps permit under terms of the Wright Amendment.

4. *Federal projects would be excluded from Section 404.*—Subsection (1) of the Wright Amendment excludes all discharges of dredge or fill material made in connection with a federal or federally-assisted project authorized by Congress, so long as the effects of such a discharge were considered in an environmental impact statement or environmental assessment, and such statement or assessment was submitted to Congress in connection with authorization or funding for the project. This is a substantial exception. Many landfill and reclamation projects have been carried out by the Federal Government or they have involved financial assistance authorized by Congress. It is possible that an EIS on a major project might refer briefly to dredge or fill activities which are a part of the project, but if no specific disposal site had been designated, there would be no significant environmental review of the effects of the disposal. However, the project could proceed nonetheless, unregulated.

The Corps of Engineers' permit process provides an important means for states and local governments to comment on federal projects. Eliminating the Corps' public notice on federal projects would significantly reduce the opportunity for states, and particularly for local agencies, to review and comment.

5. *The joint agreement provision is ambiguous.*—Subsection (f) of the Wright Amendment allows the governor of a state and the Chief of Engineers to enter into a joint agreement that the discharge of dredged or fill material in waters other than navigable waters should be regulated by the Corps of Engineers. The standard for inclusion of certain waters within such an agreement would be "ecological and environmental importance of such waters". This section does not solve the problems posed by the Wright Amendment. It is not clear whether the Corps must accept the state's view of whether additional waters to be regulated have appropriate "ecological and environmental importance". Thus, Corps' jurisdiction could possibly not be expanded unless both the state and the Chief of Engineers agree. Furthermore, this agreement would be revocable at the option of the Corps or the governor, so it provides no certainty of continuity of the regulatory program. Finally, there is the question of whether such an agreement would be subject to judicial review in the event private interests, or other governmental entities, disputed the Corps and governor's "findings" as to whether given areas are ecologically important. It is not clear whether such an agreement could extend jurisdiction to all areas now covered by Section 10 of the 1899 Act.

6. *No standards are provided for delegation to states of jurisdiction over "adjacent wetlands".*—Subsection (j) of the Wright Amendment authorizes the Corps to delegate to a state upon its request, any or all of the Corps' Section 404 responsibilities in adjacent wetlands. This Section provides almost no standards to govern such a delegation. The Chief of Engineers may delegate to a state if he finds that the state has "the authority, responsibility and capability" to regulate wetlands, and if he finds that such a delegation is in "the public interest". This section

provides no significant standards or criteria for the adequacy of a state regulatory program nor does it contain requirements for procedures similar to the Corps' public notice. Thus, it would not require input from other affected states or local governments. Furthermore, there are no adequate standards or conditions governing revocation of a delegation. The Corps would apparently be left to interpret in a new set of regulations the conditions upon which the Corps would see fit to delegate to a state or possibly revoke such a delegation.

7. *Separating "navigable waters" from "adjacent wetlands" is ecologically unsound and impractical.*—Subsection (j) carries further the artificial bifurcation of "adjacent wetlands" from "navigable waters". The Corps would be required to retain 404 and Section 10 jurisdiction over navigable waters but it could delegate its jurisdiction to states over any "adjacent wetlands". While water bodies and their peripheral wetlands are a single ecosystem, there is no certainty under Subsection (j) that the regulatory approaches taken by the Corps and a state would be consistent. Furthermore, the lack of standards in the delegation section poses the risk of inconsistent regulation of a single wetland ecosystem by adjacent states as well as by the state and federal governments.

8. *The Wright Amendment could unduly limit EPA's participation in the program for protecting the nation's waters from effects of disposal of dredge or fill material.*—The Subsection (j) delegation procedure is inconsistent with the approach to delegation taken in Section 402 of the FWPCA. Under Section 402, EPA has substantially greater responsibilities for assuring adequate state criteria under Sections 208(e) and 402 governing water quality permits. (See e.g. Sections 402(d)(2) and 304(f)–(h).) While Section 404 now requires the EPA to coordinate with the Corps on the regulation of the disposal of dredged and fill material, there is no provision in the Wright Amendment to assure that the EPA be consulted prior to a delegation or have any other role in the delegation process.

C. Importance of Corps Regulation to the State

Wetlands play a critical role in the life cycles of migratory waterfowl. Coastal wetlands and diked-off areas provide resting and feeding areas for thousands of waterfowl. Wetlands in the Sacramento and San Joaquin Valleys are wintering grounds for thousands of ducks, geese, and swans. Many of the diked-off tidelands, even though removed from tidal action, have not been filled or developed other than for pasture or salt production. Portions of these former tidelands are often seasonally flooded by run-off or seepage and they too provide feeding, resting and nesting areas. Wetlands are also important spawning grounds for many species of fish and shellfish that are taken by sportsmen and commercial fishermen. Commercial fishing is a $100 million industry in California. Last year 2½ million sports fishing licenses were issued.

The U.S. Fish and Wildlife Coordination Act (16 U.S.C. §§ 661 et seq.) requires that agencies of the United States, including the Corps of Engineers, consult with the U.S. Fish and Wildlife Service and responsible state fish and game officials on any proposed modification of a water body. The State of California has achieved significant protection of its wildlife resources through permits issued by the Corps of Engineers. In 1974, the California Department of Fish and Game reviewed 558 Corps permit applications. In 1975, the Department of Fish and Game reviewed 450 applications. The comments of the Department include, as appropriate, measures necessary to preserve significant wetlands habitat. This commenting process has enabled the State to achieve significant protection of its wildlife resources while insuring at the same time, that development compatible with these goals can proceed.

D. Summary and Recommendations

1. *Summary.*—The Wright Amendment would restrict implementation of the second and third phases of Corps' jurisdiction under the July 25, 1975, regulations. It contains many ambiguities and uncertainties which in addition may severely restrict other federal regulatory programs under the Rivers and Harbors Act of 1899 and the Federal Water Pollution Control Act. Under the Wright Amendment, Section 10 would not apply to historic tidelands and this could remove a substantial amount of former tideland and marshland from jurisdiction in the San Francisco and North Coastal areas alone. The Wright Amendment would also leave out substantial amounts of freshwater wetlands. Furthermore, a statutory definition of "adjacent wetlands" separate from "navigable waters" appears to be environmentally questionable, especially where each could be subject to regulation by different agencies.

2. *Recommended amendment if any legislation is considered necessary.*—There is an arguable need to clarify the intent as presently set forth in the Corps regulations that Section 404 is not intended to apply to routine agricultural and silvicultural operations, except reclamation or conversion of wetlands. However, the exemption in the Wright Amendment could remove these activities entirely from the FWPCA, regardless of their effects on water quality.

A more appropriate amendment to Section 404 would read as follows:

"No permit shall be required under this section for disposal of dredge or fill material (1) resulting from normal farming, silviculture and ranching activities such as plowing, cultivating, seeding, and harvesting for the production of food, fiber, and forest products; (2) placed for the purpose of maintenance, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, groins, rip-rap, and breakwaters, causeways and bridge abutments or approaches and transportation structures; or (3) placed for the purpose of construction or maintenance of farm ponds and stock ponds and irrigation ditches and for the maintenance of drainage ditches".

This amendment would make it clear that routine agricultural ranching and silvicultural operations would not require Section 404 permits without bringing into question the application of the Rivers and Harbors Act of 1899 or other sections of the FWPCA.

APPENDIX

The Wright Amendment

PERMITS FOR DREDGED OR FILL MATERIAL

Sec. 16. (a) Subsection (a) of section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended by adding immediately after "navigable waters" the following: "and adjacent wetlands".

(b) Such section 404 is further amended by adding at the end thereof the following new subsections:

"(d)(1) The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in this natural condition or by reasonable improvements as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast).

"(2) The term 'adjacent wetlands' as used in this section shall mean (A) those coastal wetlands, mudflats, swamps, marshes, shallows, and those areas periodically inundated by saline or brackish waters that are normally characterized by the prevalance of salt or brackish water vegetation capable of growth and reproduction, which are contiguous or adjacent to navigable waters subject to the ebb and flow of the tide, and (B) those freshwater wetlands including marshes, shallows, swamps, and similar areas that are contiguous or adjacent to other navigable waters, that support fresh water vegetation and that are periodically inundated and are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction.

"(e) Except as provided in subsection (f) of this section, the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands is not prohibited by or otherwise subject to regulation under this Act, or section 9, section 10, or section 13 of the Act of March 3, 1899.

"(f) If the Secretary of the Army, acting through the Chief of Engineers, and the Governor of a State enter into a joint agreement that the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands of such State should be regulated because of the ecological and environmental importance of such waters, the Secretary, acting through the Chief of Engineers, may regulate such discharge pursuant to the provisions of this section. Any joint agreement entered into pursuant to this subsection may be revoked, in whole or in part, by the Governor of the State who entered into such joint agreement or by the Secretary of the Army, acting through the Chief of Engineers.

"(g) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized to issue those general permits which he determines to be in the public interest.

"(h) The discharge of dredged or fill material—

"(1) from normal farming, silviculture, and ranching activities, including, but not limited to, plowing, terracing, cultivating, seeding, and harvesting for the production of food, fiber, and forest products:

"(2) for the purpose of maintenance of currently serviceable structures, including, but not limited to, dikes, dams, levees, groins riprap, breakwaters, causeways, and bridge abutments and approaches, and other transportation structures (including emergency reconstruction); or

"(3) for the purpose of construction or maintenance of farm or stock ponds and irrigation ditches,

is not prohibited by or otherwise subject to regulation under this Act.

(i) The discharge of dredged or fill material as part of the construction, alteration, or repair of a Federal or federally assisted project authorized by Congress is not prohibited by or otherwise subject to regulation under this Act if the effects of such discharge have been included in an environmental impact statement or environmental assessment for such project pursuant to the provisions of the National Environmental Policy Act of 1969 and such environmental impact statement or environmental assessment has been submitted to Congress in connection with the authorization or funding of such project.

"(j) The Secretary of the Army, acting through the Chief of Engineers, is authorized to delegate to a State upon its request all or any part of those functions vested in him by this section relating to the adjacent wetlands in that State if he determines (A) that such State has the authority, responsibility, and capability to carry out such functions, and (B) that such delegation is in the public interest. Any such delegation shall be subject to such terms and conditions as the Secretary deems necessary, including, but not limited to, suspension and revocation for cause of such a delegation.".

THE RESOURCES AGENCY OF CALIFORNIA,
Sacramento, Calif., July 22, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: On July 13, 1976, I wrote to you concerning Section 16 of S. 2710, the "Wright Amendment." I understand that Section 404 of the Federal Water Pollution Control Act will be the subject of hearings before the Senate Public Works Committee on July 27 and 28. I would appreciate it if my letter of July 13 (copy attached) could be made a part of the record of those hearings.

If any amendment of Section 404 is necessary this year, it should not significantly alter the extent of the U.S. Army Corps of Engineers' jurisdiction over dredge and fill activities. For this reason, we support the basic approach of the Cleveland Amendment set forth in the Congressional Record of May 26, 1976, at page H5004. The language of the Cleveland Amendment is incorporated in S. 3663, which is set forth in the Congressional Record of July 2, 1976, at page S11509. The Cleveland Amendment also is consistent with the approach suggested in the analysis of the Wright Amendment attached to my letter of July 13. The Cleveland Amendment would clarify the extent of the Corps of Engineers' jurisdiction by exempting dredging and filling associated with a wide range of farming, ranching, silviculture and maintenance activities.

Section 404 should not be substantially altered in the absence of full oversight hearings. We believe that Phase 2 of the Corps' Section 404 program should be given a chance to work. Full oversight hearings could then be held next year on the merits of extended wetlands protection under Phase 2.

Sincerely,

GARY D. WEATHERFORD,
Deputy Secretary for Resources.

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION,
San Francisco, Calif., July 21, 1976.

Subject: Proposed amendments to section 404 of the Federal Water Pollution Control Act of 1972.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: The San Francisco Bay Conservation and Development Commission has directed me to write and express the Commission's concern with the proposed amendment to Section 404 of the Federal Water Pollution

Control Act—the so-called "Wright amendment." As you may know, the Commission by State law has planning and regulatory responsibilities for all of San Francisco Bay, including many thousands of acres of salt ponds and managed wetlands adjacent to the Bay. The Commission would appreciate this communication being brought to the attention of the members of the Committee and, if possible, made a part of the records of any further proceedings on Section 404 amendments.

The Commission is particularly concerned about the lack of public hearings or opportunity for public testimony on the scope or impact of the Wright amendment. As a result, the Commission has been unable to determine whether the definitions of "navigable waters" or "adjacent wetlands" in the Wright amendment include the salt ponds and managed wetlands around the Bay. This is of great importance to the Commission because, even though diked off from the Bay, the salt ponds and managed wetlands are essential to the ecology of the Bay and to the climate of the Bay Area. The Corps of Engineers, whose jurisdiction would be altered by the Wright amendment, has played a major role in the protection and preservation of these areas. It would be a major setback for public efforts to protect the Bay if the effect of the Wright amendment were to remove these areas from Corps jurisdiction.

The present language of the Wright amendment appears to be an improvement over earlier versions proposed in the House. It includes adjacent wetlands within the jurisdiction of the Corps (though as noted earlier, it is not clear whether the Corps would retain its existing jurisdiction over Bay salt ponds and managed wetlands); it allows delegations of regulatory authority to the States; and it gives the States the option to include additional areas if they wish. However, because no public hearings on the Wright amendment have been held, and there has been no real assessment of the impacts on the Nation's wetlands of passage of the Wright amendment, the Commission believes this amendment to Section 404 is premature.

Very truly yours,

JOSEPH C. HOUGHTELING, *Chairman.*

STATEMENT OF GOVERNOR REUBIN O'D. ASKEW, STATE OF FLORIDA

The State of Florida strongly opposes any amendment to Section 404 of Public Law 92-500 which would decrease protection for the Nation's wetlands.

Wetlands, acting as nursery grounds and habitat for fish and wildlife, nutrient removers from overloaded urban runoff, water storage areas, buffers for storm-caused erosion, and esthetic wonderlands, must be protected from the undue pressure of man's encroachment. Many of the recreational activities which support Florida's vital tourist industry are dependent on its wetlands and those of neighboring states. Without adequate wetland protection, Florida's commercial and sport fisheries, flood control programs, and other economic water-related activities could be severely jeopardized. With some estimates classifying as high as 54 percent of the State of Florida as wetlands, these potential effects cannot be overemphasized.

The Section 404 regulations of the United States Army Corps of Engineers (40 Fed. Reg. No. 144, Friday, July 25, 1975) were developed after long hours of study with many built-in compromises which balanced economic and environmental concerns. The Corps of Engineers regulations will not take full effect until July 1, 1977; however, the preliminary experience in Florida with Phase I of these regulations has been positive. It would be premature for Congress to legislate changes in these regulations before Phases 2 and 3 can be implemented and evaluated.

Wetland destroyed by unregulated development no longer perform their vital functions and are often irreplaceable. It would be wiser to adopt a cautious policy of conservative regulation than to remove controls from many of the Nation's wetlands and permit their destruction.

I urge you on behalf of the State of Florida to defer the adoption of amendments to Section 404 which would alter the effect of the present Corps of Engineers regulations.

[Mailgram]

Tallahassee Fla., June 18, 1976.

Hon. EDMUND S. MUSKIE,
Washington, D.C.

I strongly oppose the Wright Amendment to the Water Pollution Control Act (H.R. 9560) (S. 3037). Corps of Engineers regulations unders ection 404, adopted after full public hearing, should be implemented. No amendments affecting section 404 should be considered without full public evaluation hearings.

REUBIN O'D. ASKEW,
Governor, State of Florida.

THE CANAL AUTHORITY OF THE STATE OF FLORIDA,
Jacksonville, Fla., August 4, 1976.

Hon. JENNINGS RANDOLPH,
Senate Public Works Committee,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: We are deeply disturbed to learn that the recent hearings of the Public Works Committee on amendments of P.L. 92-500 received no testimony from state or local officials regarding the adverse effects of existing Section 404 as presently interpreted by Federal court ruling, and as being implemented by the Executive Branch.

The court ordered interpretation of the legislative intent for Section 404 is generating massive expansion of federal bureaucracy controlling state and local government efforts to conserve, develop, or put to beneficial use national Water resources.

By July 1, 1977 it is proposed that non-federal governmental agencies must obtain a federal permit for every water resource project undertaken on practically any stream, lake, or pond in the nation.

We already are experiencing impacts from this federal bureaucratic control when local river authorities such as the Brazos River Authority in Texas is being required to obtain a federal permit for a dam the Authority is building with its own funds and for which it has previously received all requisite governmental approval. This particular example does not even pertain to a navigable stream.

For reasons unrelated to water quality, these and other projects are facing inflated costs, delays, and bureaucratic intrusion in following a law citing its objective as protecting and improving the quality of our national water.

We believe that the only rational and equitable solution to this problem is for Congress to make clear its true intents with respect to Section 404 of P.L. 92-500. The House of Representatives already has enunciated this intent through passing an amended S. 2710 containing the "Wright Amendment" to Section 404.

We urge that the Senate Public Works Committee bring the Wright amendment to a Senate vote, or at least allow the Senate a vote on any other proposed amendment to Section 404 which will eliminate requirement that local and state governments obtain federal permits for local and state water resource projects undertaken by these bodies politic.

Sincerely yours,

GILES L. EVANS, Jr., *Manager.*

OFFICE OF THE GOVERNOR,
Atlanta, Ga., August 2, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, U.S. Senate, 5121 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The Public Works Committee has recently concluded oversight hearings on the Corps of Engineers' Section 404 permit program for dredge and fill activities. The State of Georgia has closely monitored the development of the Corps' permit program and its relationship to the Federal Water Pollution Control Act of 1972 and other State and federal programs. I believe that the individual states have a large and eminent role to play in the successful implementation of a permit program intended to protect the rivers and streams and their adjacent wetlands from abuse.

In floor action on H.R. 9560, the House of Representatives adopted substitute language for the Section 404 permit program in the so called Wright-Breaux amendment. The various provisions of this amendment reflect the diverse viewpoints which contributed to its composition. I believe the Committee faces a difficult task in discerning from the provisions of this amendment the aspects required to retain the original intent of Section 404. I would like to address several of those provisions which are critical to the interests of the State of Georgia.

I strongly advocate that the Section 404 program adopt the simplest and least cumbersome permitting procedures possible. One of the states' major concerns is the excessive paperwork and burdensome procedures that have been adopted. Extending these procedures to the full three implementation phases will require a quantity of permits that will create substantial procedural problems and project delays. Minor actions and complicated procedures should not be allowed to obstruct assessment of the impacts of major actions.

The provisions in the Wright-Breaux amendment to exempt specific agriculture, silviculture, and ranching practices as well as "serviceable" structural maintenance from the permit requirements are necessary. In effect, exemptions currently in the regulations would be raised to the status of law. I believe the exemption of these activities clearly demonstrates that Congress does not intend Section 404 to become a "bureaucratic nightmare."

One of the most effective means of assuring that the Section 404 permit program will adequately address major issues without becoming entangled in procedural problems would be to delegate the program to the individual states. The delegation to the states of the permit program under Section 402 of P.L. 92-500 has worked well and a system similar to that is recommended for Section 404 permits.

The State of Georgia is particularly interested in delegation of the permit authority. This would allow the State to further centralize environmental permitting within a single agency. The ability to consolidate federal and state environmental permits and enforcement in one agency is essential to industry and state and local government when discussing the needs and potential for economic development and environment protection requirements.

Consideration should be given to providing some financial assistance to states administering this joint federal and state program. Using the language and authority in Section 402, the Environmental Protection Agency is able to monitor state permit programs as well as disburse federal funds.

The Section 404 permit program, as presently mandated by the N.R.D.C. vs. Calloway Federal Court decision, goes far beyond the expectations of the language enacted in 1972. I agree that clarification of Congressional intent is now required. The definition of navigable waters in the Wright-Breaux amendment injects a new undefined limit of jurisdiction under Section 404. I recommend a clearer definition of this jurisdiction or retention of the definition of navigable waters for the present as it had evolved prior to passage of the Federal Water Pollution Control Act of 1972.

If you are interested in discussing my concerns in more detail, or drafting possible language for amendments, please let me know so that I may make the appropriate staff available. I would respectfully request that the above comments be included in the hearing record.

Sincerely,

GEORGE BUSBEE, *Governor.*

STATE OF LOUISIANA,
EXECUTIVE DEPARTMENT,
Baton Rouge, La., July 21, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
U.S. Senate, Washington, D.C.

DEAR SENATOR RANDOLPH: Attached is my statement for the record of the Public Works Committee and your consideration. It summarizes the problems that we have encountered with Corps of Engineers' permitting requirements and the undue burden these requirements have placed on the citizens of Louisiana.

Additionally, I am suggesting some modifications to the Wright-Breaux amendments which will reduce the burden on our citizens, provide for greater state participation in the regulatory process, and still provide protection for our wetlands.

Mr. Vernon Behrhorst, Director of the Louisiana Coastal Commission, will be in Washington from July 26 to July 28 and will attend your Committee hearings.

I respectfully request that you arrange for him to meet with the staff of the Public Works Committee to discuss in further detail our situation in Louisiana. He will also be able to suggest specific language for the modifications which I am proposing.

I urge your Committee and the Senate to take positive action to restore balance to our regulatory programs, a balance which I believe was the original intent of the Congress.

Sincerely,

EDWIN EDWARDS, *Governor.*

Attachment.

STATEMENT OF EDWIN W. EDWARDS, GOVERNOR OF THE STATE OF LOUISIANA

Senator Randolph and members of the Public Works Committee, I greatly appreciate the opportunity to submit to you my views on the Water Pollution Control Act.

This committee and its counterpart in the House of Representatives are two of the most important committees in the Congress to the State of Louisiana. Our almost unlimited water resources—fresh water for agriculture, cities and industries; navigable waterways, and fisheries—are, for the most part, under the jurisdiction of your committee. You have treated us generously and fairly in the development of these water resources. For this, we thank you. We are confident you will give us comparable consideration in the requests that I am submitting at this time concerning amendments to Section 404 of the Water Pollution Control Act.

First, let me assure you that the citizens and officials of the State of Louisiana are greatly concerned about our water resources, particularly our wetlands. I bring this to your attention as we are too often portrayed as devastators of our wetlands and out of step with the rest of the nation in natural resources management. We are more aware than most about maintaining water quality as one-third of the flow of all the rivers and streams of the United States passes through Louisiana on its way to the sea. This water can be likened unto our lifeblood; we cannot stand to have it poisoned and polluted.

Secondly, I was a member of the Public Works Committee of the House during initial consideration of the Water Pollution Control Act Amendments of 1972. At that time, I and many of my colleagues in the Congress had not the slightest idea that the courts would expand the definition of navigable waters far beyond what we intended it to be. However, we must abide by the rulings of our courts. I must also abide by the wishes of the citizens of my state. Therefore, I respectfully request you to clarify Congressional intent with regard to Section 404 of the Water Pollution Control Act. This, I believe, requires further amendments to the Act.

I could quote statistics on the vastness of Louisiana's wetlands, elaborate on the magnitude of the task of managing and protecting them, and protest the great burden placed upon our citizens by regulatory programs. Rather than be repetitious, I am attaching the statement I submitted at the hearings conducted by the Office of the Chief of Engineers in Baton Rouge on September 23–24, 1975 (Attachment A). It contains this information.

Additionally, in my oral presentation I urged the Corps of Engineers to appeal the decision of the District Court which drastically expanded the jurisdiction of the Corps of Engineers. It is regrettable that the Department of the Army made a decision not to do so. Congress must now act.

My successor in the 7th District of Louisiana, Congressman John Breaux, obtained approval of an amendment in committee that defines navigable waterways essentially as the term was interpreted prior to the recent court decision. His amendment removed the historical use test as one of the criteria for navigability. The deletion of this test will, if the amendment is enacted into law, remove a number of streams, small ones in particular, from regulation of the discharge of dredged or fill material. In Louisiana natural changes take place very rapidly, as we are geologically an infant state. As a result, some streams that were actually used for navigation one hundred years ago are no longer capable of being used or don't even exist today. Therefore, there is sound reasoning behind the deletion of this test.

My major concern lies in Section 16(j) of H.R. 9560, as passed by the House. Subsection (j) authorizes the delegation of regulatory authority under Section 404 to states, if the state so requests and meets prescribed requirements. Our problem in Louisiana, and it may be a problem of similar magnitude in other states, is that the delegation of regulatory authority is restricted to "adjacent

wetlands." There are no provisions for delegation of this authority to states for functions related to "navigable waterways." The major objection we have to restricting the delegation of authority to "adjacent wetlands" is that 90% of Louisiana's coastal wetlands lie below the mean high water mark and are therefore, according to Subsection (d)(1), navigable waters. Conversely, this can be interpreted to mean that it is the intent of Congress for the Corps of Engineers to retain exclusive jurisdiction over the wetlands lying below mean high tide. People in Louisiana agencies have told me that in their discussions with individuals from the federal government and from other states, they agree that this was not the intent of the Wright-Breaux Amendments. If it is the intent of Congress that states may assume, upon their request, jurisdiction over coastal marshlands below the mean high tide, a clarification is required.

The Louisiana Legislature is now considering coastal zone management legislation. Significant opposition to enactment of coastal zone legislation is occurring. One of the major reasons for opposition is a strong feeling that the coastal regulatory program required by the CZM Act of 1972 will just place an additional layer of regulatory authority on them.

Between July 1, 1975, and June 30, 1976, essentially the period when Phase I of the new regulations went into effect, the citizens of Louisiana submitted 1664 permit applications to the New Orleans District of the U.S. Army Corps of Engineers for approval. This is not the entire number for the state because small portions of Louisiana lie in the Galveston, Fort Worth, Vicksburg and Mobile Engineer Districts. Practically all of these permit applications were for activities within our coastal wetlands.

Our citizens need assurance that regulatory authority can be delegated to Louisiana before we can expect strong support for coastal resources legislation. Our citizens are wary of the consistency provision of Section 307 of the Coastal Zone Management Act. They are quite insistent that provisions for delegating regulator authority be a statutory delegation. Here is an opportunity for Congress to give our citizens this assurance.

Louisiana would like for legislation to be enacted that will provide for delegation of regulatory authority to states, not only under Section 404, but also under Sections 9, 10 and 13 of the Act of March 3, 1899, providing the states have the required authority and capability to handle a regulatory program. If this cannot be supported by the Congress at this time, delegation of authority under Section 404 alone would be a major step forward in achieving adequate state participation in regulating our wetlands.

It is appropriate that the states assume regulator authority over at least our coastal wetlands and adjacent wetlands. With regard to actual navigable channels which are used for commerce, I believe the federal government should retain jurisdiction over these waterways as most of the navigable channels in Louisiana were either constructed or are being maintained partially or entirely with federal funds. I see no argument over jurisdiction of these channels. Possibly language can be developed whereby regulatory authority over the wetlands below mean high tide, excluding navigable channels, can be delegated to coastal states.

Although we are concerned about regulation in all our waterways and wetlands, our major concern is the wetlands within our coastal zone. I suggest that the Wright-Breaux Amendments be further amended to specifically provide for automatic transfer, upon request, of a regulatory authority to coastal states which are administering a coastal zone program pursuant to Section 306. The transfer of regulatory authority could be limited to the coastal zone as defined by the state.

I strongly support the provisions of Subsection (g) which provides for the issuance of general permits. This will help to reduce the burden of permits required for such things as very small bulkheads which people construct to prevent erosion of their property. I do, however, ask that the Congress consider extending the general permit authority under Section 9 and 10 of the Act of March 3, 1899, to small structures which do not in themselves interfere with navigation. Since navigable waters have been interpreted to include waters up to the mean high tide, hundreds of Louisiana sportsmen have had to obtain permits to construct isolated hunting and fishing camps in areas which have no relationship whatsoever to actual navigable waterways. These make up a significant share of the permit applications in Louisiana and constitute a nuisance requirement to our citizens.

Subsection (h) goes a long way toward removing the cloud of confusion with respect to who needs to apply for a permit for activities in navigable waters and wetlands. This subsection is of particular importance in Southwest Louisiana where rice, requiring irrigation in leveed fields, is a principal crop. This provides a specific exemption. As we have a considerable amount of silviculture involving bottom land hardwoods, it also clarifies this situation.

The provisions of Subsection (h) are essentially the provisions of the amendments offered by Congressmen Cleveland and Harsha. However, one important provision of the Cleveland-Harsha Amendments was not incorporated into the Wright Amendments. Paragraph (3) of the Cleveland-Harsha Amendments exempted existing drainage ditches from regulation under this Act. I recognize that some of the support for strong regulation of waterways and wetlands has resulted from abuses in drainage programs. There have been abuses. However, adequate drainage is essential for existence in Louisiana. We have thousands of miles of drainage ditches in non-wetlands areas, yet, because the lower portion, sometimes a mile or less, lies in wetlands, we are required to obtain a permit for maintenance of these essential drainage ditches. Attached is a statement by the Louisiana Department of Public Works which clearly states our problem (Attachment B). I strongly urge the Senate to restore the exemption for maintenance of existing drainage ditches.

One of the major activities in our coastal wetlands is their management for migratory water fowl and fur bearing animals. Much of our marshland is more productive under a management program requiring levees, control gates and pumps than it is under natural conditions. We have several million acres of private lands and state and federal refuges under a management program. Management of much of this land has been restricted or halted because of the requirement for permits, and in some cases, environmental impact statements costing more than the maintenance of existing levees and structures. To me, this situation contains a contradiction. We are burdening an activity which maximizes production of species we are trying to save. In Paragraph (2) of Subsection (h), which provides for the maintenance of such structures, possibly clarification is in order to specifically spell out exemptions for maintenance of structures involving management of wetlands for migratory water fowl and fur bearing animals. Aquaculture should be considered as well.

Section (i), which provides for exemption of federal or federally assisted projects from permit requirements, if an environmental impact statement or assessment has been submitted to Congress in connection with the authorization or funding of the project, can be a step forward in reducing the time lag between authorization and construction of projects. We must be sure, however, that these EIS's or assessments are adequate. There is also the question whether or not these projects will be exempt from regulation by states, if delegation of authority is exercised under Subsection (j).

At your request, the President has deferred the implementation of Phase II in order to provide sufficient time for you to consider modifying Section 404. I urge you, in the time available, to amend Section 404 to remove the unnecessary burden upon our citizens and return to a reasonable balance of regulatory authority among federal, state, and local agencies. I believe that the modifications contained in the Wright-Breaux Amendments, along with my suggestions to your committee, can reduce this burden, while retaining adequate regulatory authority over our navigable waterways and wetlands.

ATTACHMENT "A"

STATEMENT OF EDWIN W. EDWARDS, GOVERNOR OF LOUISIANA, BEFORE A HEARING CONDUCTED BY THE OFFICE OF THE CHIEF OF ENGINEERS, U.S. ARMY CORPS OF ENGINEERS, BATON ROUGE, LA., SEPTEMBER 23–24, 1975

General McIntyre and representatives of the Corps of Engineers: On behalf of the citizens of Louisiana I extend to all of you our warmest welcome. Not only do we extend to you a hand of welcome, we stand ready to assist you in any way we can. Above all, I offer a sincere thanks to the Corps for its contribution to the State of Louisiana. Without your efforts Louisiana would not be the thriving state it is today.

I wish to personally thank you as well. While in the Congress, I served on the Public Works Committee, which has jurisdiction over many matters affecting the Corps. Also, while I have been Governor, you have helped us engage in two successful flood fights which spared the lives of our people and protected their property from devastation. Ironically, the mighty Mississippi, whose destructive force you have tamed, is also one of our major natural resources. With your help the Mississippi is our door to the world. The River, the GIWW, and our other waterways float the bounty of our farms to our seaports. At this moment, a few yards from here, ships are loading grain which will become bread to feed a hungry world.

We have enjoyed a friendship with the Corps that has lasted for many years and one which I hope will continue for many more. It is in the spirit of friendship that I appear before you on behalf of the people of Louisiana. What I say—and must say as the one responsible for the welfare of the citizens of Louisiana—is said in this spirit of friendship.

In March of this year, the Corps was directed by the District Court of the District of Columbia to develop new regulations governing the issuance of permits in "navigable waters" as redefined by that court. You and I know how your expanded jurisdiction came about, but many do not. It was expanded by judicial interpretation beyond what I believe was ever intended by the Congress. This new burden of regulatory powers was placed upon you and not solicited by you.

The Court has ruled and you must fulfill your duty. Our system has survived for two hundred years because we have respected our courts and abided by their decisions. But keep in mind that our system of government also survives because it grants you and me the right to voice our disagreement with these decisions. Nothing in my study or in my experience in government, both in the legislative and executive branches, provides one shred of supporting evidence for expanding your mission to include control over our wetlands.

If Congress feels that the federal government should control our wetlands by assigning you this jurisdiction, let Congress then do it by means of a clearly worded act passed after full hearing and debate. I, among many, want the opportunity to appear before my former colleagues to impress upon them that the citizens of Louisiana are opposed to the further intrusion of federal authority into what we consider primarily an area of state and local jurisdiction. Let's be honest and define wetlands as what they are and regulate activities in them accordingly. Please don't do it under the guise of defining them as "navigable waterways".

The Chief of Engineers wrote to me and asked me to comment on the proposed regulations you published on May 6 incompliance with the Court order. I wrote to General Gribble on May 28 stating my position and giving my recommendations. Your new regulations have altered my position very little. I am attaching a copy of that letter to this statement so that it will be in the record for you to review again while considering changes in the present regulations.

In my letter I stressed the uniqueness of the physical setting of Louisiana, particularly our abundant water resources and our topography which differs from most of the other states. The Corps understands our unique situation because you have been involved in our water management program for years. Unfortunately, there are others who have little knowledge of our situation in Louisiana. This is why I am pleased that the Corps is the agency which is working with us.

Louisiana's misunderstood and unique physical setting has served as an environmental laboratory, the results from which have added to our knowledge and benefitted people throughout our country and the world. May I cite several examples?

If you fly over Louisiana's coast you know it's a busy place. We have been working in the marshes and swamps for a long time. Many of our people earn their living there during the week. They boat and fish on the weekend in those bays and marshes. Our history and culture are tied into the marshes and wetlands. So we know they are vitally important areas. We want to use and protect them for a long time to come.

Louisiana is no beginner in knowing how to live and work in the marshes. We've been producing oil and gas for decades, to feed an energy hungry nation. To do that you have to drill, dig, dredge, fill, maintain, rebuild—and on and on—to get the oil and gas out of the ground. You can't get oil out of marshes without moving through them and pushing them around. Years ago we may not have been as efficient and economical as we could because we were just learning. But, about 15 years ago, we started changing all that. Today Louisiana is tops in the nation and the world in knowing how to regulate oil and gas operations in marsh and swamp areas. People from all over the world come to visit us—about every other day it seems—to learn how to work safely in the marshes.

We know how to do the job right because we have been doing it longer than anyone else. We have made industry aware of the problems and taught it ways to avoid pollution, conserve the oil and gas, and preserve the marsh. We have developed state agencies which are experts in policing the marsh area to make sure public interests are being protected.

As I said before, we *know* we have a vitally important resource and we intend to protect it. We're not going to sacrifice any part of it—the oil or the fish. It's too much a part of the lives of our people.

I would be remiss if I did not mention our efforts to develop an offshore oil port. Before Congress ever enacted any Superport legislation, Louisiana had developed and put into effect an environmental protection plan which anyone constructing a superport off our coast must rigidly follow. Consequently, we are far ahead of other states.

In wildlife management the State of Louisiana and private landholders have been leaders in developing management programs for maintaining highly productive habitat for waterfowl and fur-bearing animals, including too many alligators. We are proud of our state wildlife refuges, and remember, they are managed by man as much as by nature.

Additionally, let's not forget the work done by Louisiana agencies in areas of pollution abatement, water supply, beach erosion, soil conservation, and forestry. Consider what Louisiana has accomplished in environmental protection. Please do not condemn us for what we have not done.

We are pleased that you have incorporated some of the changes suggested by Louisiana agencies in your interim final regulations. These revisions will make the regulations somewhat easier to live with. We feel, however, that additional revisions are required. State agencies will submit their recommendations either at this hearing or in writing before the close of the comment period. I wish to mention a few that are of general interest.

First, the new regulations provide that agriculture and forestry activities do not need permits. I support this wholeheartedly. We cannot produce the food and fiber we need if farmers are required to get permits for working their fields or foresters need your approval to harvest their trees.

Second, the maintenance of existing structures such as dams, levees, water control structures and bridges in an emergency situation still requires a permit. It is unrealistic, a burden, and a possible danger to require permits on these maintenance activities. I urge that these emergency activities be exempted from permit procedures. When a flood is about to hit, there's no time to file a permit.

Third, allowing a property owner to build protective bulkheads without getting a permit is welcome. At the state level we review these efforts routinely to make sure public waterbottoms are not infringed.

Fourth, it is imperative that we make a clear distinction between activities with a national interest and those that are strictly of state and local interest. Matters of state and local interest should be dealt with only by state and local agencies. Ever since the New Orleans District Engineer issued a public notice stating that even duck camps would require a permit, the public has become very aware of—and is concerned about—the further intrusion of the Federal Government into a matter we consider to be of state and local concern. There is hardly any federal interest involved in this matter. You now propose a system of general permits. If we have to live with these regulations, I urge you to make general permits applicable to duck camps and the many other activities which do not interfere with navigation. This will reduce the burden on our people immensely.

Fifth, you have provided for shortening the permit process by joint notices and public hearings by the Corps and the State. The regulations provide for processing to "an independent conclusion". I believe the State's "independent conclusion" should be given the greatest weight possible. In fact, unless a matter of utmost national concern such as national defense is involved, I think the Corps should follow the State's lead and the regulations should reflect this policy.

I wish to emphasize that the State of Louisiana does not oppose the regulation of activities in navigable waterways and wetlands insofar as it serves the public interest and welfare. Like every other state we require persons and businesses to obtain permits and licenses for a wide variety of activities affecting the public interest.

But who should issue the permit or license? We believe that most of the activities which affect the public interest in our wetlands are of state and local concern only. I say most because there is obviously an overriding federal interest in such things as navigation, flood control and the offshore oil industry. The state must reassume its jurisdiction over these activities which do not involve an overriding federal interest.

Three years ago Congress enacted the Coastal Zone Management Act. It provides the best vehicle, to my knowledge, for states to assume control over activities in coastal wetlands. We have our best experts in the state working to

develop a good coastal management program. Once we have this program in place, federal actions in the coastal zone must be consistent with the State's program. From my viewpoint this means that most, if not all, Corps permits will have to conform to the State's actions. I am fully behind the development of a coastal zone program in Louisiana and I am urging our state agencies and local governments to move ahead in this area.

Sixth, I recognize that to pin down definitions that are acceptable to everyone in every part of our country is nearly impossible. This in itself points out the folly of trying to regulate at the Federal level. There are, however, a number of definitions which need clarification and amplification and some which need to be completely changed if they are to be workable.

In Louisiana we not only dredge oyster shell for construction purposes, but for live oysters as well. Are oysters included in dredge material? Furthermore, what are "normal farming operations"? How do we define the term "contiguous" or "adjacent to" in reference to areas of aquatic vegetation in proximity to navigable waterways? Similarly, we have the term "prevalence of vegetation that requires saturated soil". How prevalent? These are only examples. Many more will be cited to you. Above all, the terms "navigable waters" and "navigable waters of the United States" are used and are confusing.

Also of major concern to us are the delays which we encounter in pursuing activities in our navigable waterways and wetlands because of permit procedures. In the oil industry, we have had economic loss because of delays in issuance of permits. I say not non-issuance, but simply delay.

Likewise, we have had delays of sometimes many years because of disagreement between federal agencies while state agencies have all concurred. As a member of Congress, I helped develop the Cameron-Creole Watershed Project which will control the intrusion of salt water into a large area of S. W. Louisiana. The permit for this important project has not to this day been issued because of conflicting views of federal agencies. Yet, state agencies have urged the rapid completion of the project. Costs have increased by thousands, if not millions of dollars, and every day we are losing more acres of valuable fresh water marshes. This can not go on.

Since you have published your interim and final regulations on July 25th, you have published additional proposed regulations governing the preservation of cultural resources. These regulations published on September 8th have again pushed you into an area which I believe to be more appropriately handled at the state level. The State of Louisiana has its own program for cultural preservation. We have a rich heritage of both prehistoric and historic culture which we are entrusted to preserve. We have state laws governing the preservation of our cultural heritage. Do we need any further regulation?

I have only touched briefly on major issues involved in your proposed regulations and how they affect Louisiana and other states. I close by repeating that my original letter contains Louisiana's position. We hope that you can revise these regulations to more closely conform to our needs.

I urge you, put your money and expertise into helping the state do its own job better. The funds you use in massive federal regulatory programs could be more efficiently used in the state. Urge your chief in Washington to issue regulations allowing ultimate state control where there are no national interests involved. Fight court decisions that go against the philosophy of more state and local control.

Work with us to let us manage our coast for ourselves. Let's work something out here in Louisiana so the Corps can support the state and not run it. If that is impossible under the law, then let's go to Congress together to act for a change in law to put the authority back where it belongs.

STATE OF LOUISIANA,
EXECUTIVE DEPARTMENT,
Baton Rouge, La., May 28, 1975.

Lt. Gen. W. C. GRIBBLE, JR.,
Chief of Engineers, Office of the Chief of Engineers,
Department of the Army, Washington, D.C.

DEAR GENERAL GRIBBLE: As requested in your letter of May 3, 1975, comments are herein submitted on proposed regulations of the Corps of Engineers and the Environmental Protection Agency published in the Federal Register on May 6, 1975.

As Governor of the State of Louisiana, I am faced with frequent decisions which affect the daily lives of our citizens. Occasionally, a proposal for which I must

consider and issue a decision or recommendation is of overbearing importance and has a tremendous impact on the present and future of our state. The regulations as published constitute one of the more serious proposals with which I have been confronted.

You must realize that Louisiana is perhaps the most unusual and water-rich state of the United States. Louisiana has a dramatic history inseparably tied to water and our future is completely dependent upon good management and utilization of our water supplies within constraints now existing from the federal to the local levels and in a manner which is environmentally safe. This is a unique part of the nation since we in this state exist under threats of the extremes of floods as well as droughts and at the same time are blessed with a network of rivers and streams providing more than 7,500 miles of commercially navigable waterways. Our coastal area includes areas extending from 35 to 50 miles inland from the Gulf and contains some of the most important resources of the state; namely, oil, gas, sulphur, salt, fish and wildlife. Consequently, there are many improvements and activities in this area including industrial locations, port and harbor facilities, navigation canals, major cities, transcontinental pipelines, interstate highways, agriculture and forestry areas, small towns and many other related developments. This coastal area is constantly being threatened by hurricanes, floods, high tides, and salt water intrusions, but yet has a substantial population with daily activities. Other extremes or contrasting parts of the state are the alluvial flood plains and major rivers traversing Louisiana covering approximately ⅓ of the state. In this same ⅓ area, 78 percent of our citizens live and work; practically all of the major industries are located; at least 80 percent of the state's disposable income is found; more than 60 percent of the state's agricultural production is contained; and fishing, wildlife, and recreational activities exist in abundance.

This brief overview describes a dynamic area, the State of Louisiana, where day to day activities are intimately involved in water and related land resources and where future water related activities will have to be increased if we are to meet the demands placed on our state. Louisiana is also willing and anxious to develop a major offshore oil port which will require many associated developments and alterations inland. Management and control of such changed conditions have largely resided with the local and state governments throughout our history. This pattern absolutely must be continued to prevent lengthy delays, shut downs, denials, frustration and economic chaos. The same needs exist in our agricultural industry where state agencies, local governments, and/or special districts also regulate drainage, irrigation, water uses, levee construction, impoundments, and other activities. Louisiana would probably be the state most affected by the proposal in requiring permits for every project throughout the state—for the farmer on almost any activity including irrigation, cultivation, pond construction, and clearing; for the private property owner from timber harvesting to building a swimming pool; for building homes in reclaimed areas such as the New Orleans vicinity; for industrial development along our many rivers; for constructing and maintaining indispensable flood control and hurricane protection systems; for drainage improvements; and for any undertaking to improve, grow and advance. Every square mile of Louisiana would fall under the broad permit system with the court's definition of "Waters of the United States." I do not believe we can be successful under such a federally controlled system with no recourse for appeals.

Therefore, I must emphatically oppose the proposed guidelines as published in the May 6, 1975, Federal Register. If federal controls are imposed to take away our remaining ability as a state to make our own decisions, it is a sad day in American history. I do not believe that Congress intended for the control of state and local developments to be domineered by federal agencies. Another major concern is that no satisfactory procedures are allowed in the proposed regulations for amending, negotiating or considering repeal of decisions issued by the Corps of Engineers and the Environmental Protection Agency, when overriding benefits are obvious and sanctioned by the state or states concerned. This state cannot agree to the proposed regulations for broadening and extending federal authority into areas that must remain a state and local responsibility. There is no reason to expand the permit authority now existing in Section 404 of the Federal Water Pollution Control Act Amendments of 1972 and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. Louisiana cannot continue to exist and move forward under regulations as proposed.

As Governor of the State of Louisiana, I strongly urge:

(1) That the Corps of Engineers and the Environmental Protection Agency obtain clearly defined Congressional intent in defining navigable waters and waters of the United States;

(2) That the Corps of Engineers request an extension of time from the Court to obtain Congressional guidance prior to publishing final regulations as required by the Court;

(3) That the United States Department of Justice immediately file a notice of intent to appeal the District Court's ruling on behalf of the defendants, and further, that the appeal process is duly completed.

If these recommended actions are not taken, it will be inexcusable and the State of Louisiana and the nation will suffer through implementation of the proposed guidelines; however, if no other option is available and it is unavoidable that one of the four alternatives must be carried out, then Lousiiana would prefer Alternative 4 as the least damaging and having less problems.

On behalf of the State of Louisiana, I appreciate the opportunity to comment on the proposed regulations.

Sincerely,

EDWIN EDWARDS, *Governor.*

STATE OF LOUISIANA,
DEPARTMENT OF PUBLIC WORKS,
Baton Rouge, La., July 22, 1976.

ATTACHMENT "B"

Hon. EDWIN EDWARDS,
Governor, State of Louisiana,
State Capitol—Fourth Floor,
Baton Rouge, La.

DEAR GOVERNOR EDWARDS: We have been asked to provide our views concerning problems associated with amendments to H. R. 9560, the Wright-Breaux Amendment affecting the U.S. Army, Corps of Engineers' 404 Permit Program. Accordingly, we are pleased to express recommendations of the Department of Public Works.

Specific needs and problems of this Department are reflected through the police juries and local governing bodies who are experiencing numerous delays in performing normal, critical and unusual maintenance of existing drainage channels. These drainage channels usually have been designed and are constructed as a part of the state-wide drainage program. While waiting for approval of permit applications, repeated flooding of developments and improvements frequently occurs. These delays seriously discourage and prevent drainage channel maintenance by state and local governing bodies. It is imperative that these drainage channels be promptly maintained through a continuous program without extended delays while acquiring a permit from the Corps of Engineers.

A statement in support of authority for states or local public bodies to perform such maintenance is attached. It is requested that congressional support and approval be obtained if possible. Should you have questions or need additional information, I will be happy to obtain it for you.

Sincerely yours,

ROY AGUILLARD, *Director.*

Enclosure.

STATEMENT IN SUPPORT OF MAINTENANCE OF DRAINAGE CHANNELS TO BE EXEMPT UNDER SECTION 404 PERMIT REQUIREMENTS OF THE 1972 WATER POLLUTION CONTROL ACT

Louisiana is unique among all other states relative to its geography and physiography. Being located at the lower most point of a drainage area to which 41% of the United States directs its total runoff, Louisiana is forced to contend with flood threat conditions on a continuous basis while these waters are originating distantly away from the state. Added to the problem is the fact that Louisiana is predominately an alluvial area and consequently contains extremely wide, flat, gradually sloping areas. The flood plains in Louisiana occupy approximately one-third of the total area and contain vast majorities of the natural resources. These same areas also provide the nation's richest agricultural production areas and contains all of the state's larger cities, most of the principal highways, pipelines, utilities and major industries. The coastal area, including up to about 35–50 miles inland from the Gulf of Mexico is also rich in natural resources, agricultural areas, fish and wildlife, and extensive developments.

These natural conditions and resources provide wide opportunities for development and production. From the days of the earliest settlers until today and surely

to continue into the future is the continued development, expansion, improvement, and use of these prime attractive areas that are unlike any other state or portion thereof in the United States. Along with this development, the need for drainage and flood control has been met with comprehensive planning and construction of a statewide drainage program and flood control systems to provide protection to developments as they are justified.

Our area has prolific growth rates along with unusual sedimentation and consequently drainage channnels have to be maintained more frequently than in other parts of the nation so that growths and silt deposits within the drainage channels which protect tremendous investments and costly improvements must be timely controlled and removed. Practically all of these channels come under ths jurisdiction of the present Corps of Engineers 404 Permit Program which requires that a permit application be submitted and the permit acquired prior to performing normal maintenance on the drainage channels in many locations throughout the coastal area and river flood plains.

While the permit application is in process, which requires from three to six months up to a year or more, we are repeatedly experiencing serious flood damages to businesses, industries, residential area, and agricultural operations simply because the maintenance program could not be carried our as required. Such a process has created an impossible situation whereby the State of Louisiana must regain its authority to maintain drainage channels under the statwide drainage program. As it becomes necessary, these maintenance procedures should be freely available without extended delays of acquiring a permit from the Corps of Engineers.

States in which drainage channels play a vital role in protecting from and preventing flood damages to crop lands and improvements generally lie in coastal areas of the United States. That portion of Louisiana mainly affected is the State's coastal area comprised of the following parishes: Cameron, Calcasieu, Vermilion, Iberia, St. Mary, Terrebonne, Lafourche, St. Charles, Jefferson, Plaquemines, Orleans, and St. Tammany.

Therefore, it is recommeded that Senate considerations of the Wright Amendment authorize the State of Louisiana and local governing bodies, and any other state which has similar problems, to perform required maintenance on drainage channels, particularly those located within "adjacent wetlands" or areas defined as "navigable waters" which does not in fact contain a commerical navigation artery. Such an exemption is vitally necessary if Louisiana is to retain and continue its historical practice of fulfilling the State and local responsibility for maintenance of existing drainage channnels. Should this authority not be restored, serious setbacks to the State economy will result and many developments and improvements will have to be abandoned.

MARYLAND DEPARTMENT OF AGRICULTURE,
Annapolis, Md., July 30, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Room 5121, Dirksen Building, U.S. Senate, Washington, D.C.

DEAR SENATOR RANDOLPH: Your attention is directed to hearings to be conducted on July 27 and 28 relative to interpretation and implementation of Section 404, the Dredge and Fill Proposal, of the Federal Water Pollution Control Act.

All of us in Maryland were extremely concerned when the courts determined that the authority of the Corps of Engineers under present law would cover "all waters of the State." Maryland has been vigorous in its attempts to exert control over the environment. Even before this intrepretation, legislation was passed and regulations were effective whereby a point source of pollution was being corrected through the use of the permit procedure. Additional authority by the Corps of Engineers in this area is indeed frustrating to our citizens and our State agencies. As you well know, many regulations of industry, private property and businesses have been placed into effect. We recognize that there must be an effort on our part to make people conscious or the need for correction in these areas that are creating problems for water quality. It seems unfair though to subject them to an even more extensive delay and red tape. We do have a good program in Maryland and do not need the additional authority of the Corps to preempt our State Regulations. To give you an example, there is one situation where a property owner was losing approximately one foot of his property each year to erosion. His interest in trying to correct this problem required not only permits from the State, but also from the Corps of Engineers. The land which he was attempting to con-

tain and the structure being used was only the length of the area which had eroded in the last 30 years. There was a 4 month delay in getting approval with State hearings and the Corps of Engineers' permission.

I respectfully urge you to lend your support to the Wright Amendment which in my opinion gives the Corps of Engineers the authority in the area in which it should have. Your favorable consideration will be very much appreciated by all of Maryland agriculture and I am sure by the citizens of the State.

Sincerely,

YOUNG D. HANCE, *Secretary.*

STATE OF MINNESOTA,
OFFICE OF THE GOVERNOR,
St. Paul, Minn., July 26, 1976.

Hon. JENNINGS RANDOLPH,
U.S. Senate, 5121 Dirksen Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: As you are aware, the Senate Public Works Committee has scheduled oversight hearings for July 27 and 28, 1976 on current problems being experienced or anticipated on implementation and administration of the Corps of Engineers 404 dredge and fill regulations. The Committee expects to report legislation shortly after the conclusion of these hearings as a potential conference vehicle for HR 9560 (S. 2710) which passed the House in June, 1976.

We have been informed by Committee Staff that the oversight hearings have a closed witness list and that July 27 is the date for testimony by members of the Senate and the four executive agencies involved.

Your cooperation would be most appreciated and presenting the views of the State of Minnesota on this issue. Attached herewith is a copy of a statement on behalf of the state we would like to have read into the record.

Sincerely,

WENDELL R. ANDERSON, *Governor.*

Enclosure.

STATEMENT ON BEHALF OF THE STATE OF MINNESOTA

The State of Minnesota is concerned with the forthcoming Senate action on the present legislation S. 2710 concerning the extension of U.S. Corps of Engineers authority over dredge and fill operations in navigable waters.

A careful review and evaluation of HR 9560 (now designated S 2710), which passed the House by a wide margin, indicates that the original bill as further amended by the Breaux and subsequent Wright amendments would be most acceptable to the State of Minnesota subject to the consideration that additional separate legislation is prepared to provide for adequate federal controls to protect certain wetlands not covered by S. 2710.

The Wright Amendment as presented in the June 3, 1976 Congressional Record would be acceptable for the following reasons:

(1) It would appropriately limit the definition of "navigable waters" as used in Section 404 of PL 92500 in regard to federal jurisdiction, to those waters which have traditionally been included, for administrative purposes, under federal jurisdiction through unwritten agreements and administrative actions between the states and the Corps. The addition of the definition of "adjacent wetlands" will afford the protection needed for those coastal and freshwater wetlands which are located contiguous to and within the reasonable limits of the "navigable waters" hydrologic and biologic systems.

(2) It would authorize mutual agreements between Governors and the Corps to designate additional wetlands for federal permit control. This would allow those states who have existing regulatory programs to maintain their existing permit programs, while at the same time providing a mechanism for those states without such programs, or with only limited programs, to enter into agreements with the Corps of Engineers for federal regulation. In Minnesota, major efforts are underway to implement a program for delineating and classifying "public waters" of the states to carry out a local-state program for regulation of changes in the course, current or cross-section of these "public waters." Interference with that program at this time would severely hamper state legislative intent to create a sound local-state program of permit regulation addressing environmental as well as economic concerns and it would inhibit successful implementation of the recently enacted state laws authorizing such actions. If other states wish to work out other agreements on regulation, they should be allowed to do so, but such a

program should be a negotiated action and not subject to mandatory federal laws.

(3) It would authorize the Corps of Engineers to delegate any functions of the 404 permit program to interested states to avoid duplicative programs. This would lead to a better program of mutual cooperation and would reduce "bureaucratic red tape" by simplifying and shortening the permit process. In essence, it represents the same concept presently being enacted on a local-state basis in Minnesota—the development of mutually acceptable regulatory rules and regulations within a broad legislative framework and the implementation of the program at a local level wherever feasible and practical on matters of dominant local-regional concern. Minnesota has accepted delegation of the NPDES permit program from the USEPA. This program is operating very successfully, and we see no reason why similar delegation of the Federal 404 program would not be equally successful.

(4) It would exempt the regulation of dredge and fill discharges resulting from normal farming, silviculture, ranching, certain maintenance activities or regulation of these areas as they affect wetlands but this should not be accomplished under federal water pollution control legislation. If such control is to be provided, it should be done under a comprehencive wetland management program which is under the jurisdiction of the U.S. Fish and Wildlife Service and which provides for adequate mitigation (compensation) for regulatory restrictions on use of certain specified wetland areas. Such federal legislation could be most helpful, but it should be through a separate legislative act which is carefully conceived to allow reasonable economic development without excessive destruction of environmentally valuable wetlands.

(5) Finally, the Wright amendment provides authority for the Corps to issue "general permits" to cover minimal permit situations. This provision could help to reduce the proliferation of permits required and allow more time for the Corps to concentrate on major permit matter of national significance without requiring large new Corps funding and staff additions for administration.

In summary, the State of Minnesota urges that the Senate enact the key provisions of S. 2710 and thereby assist the states in their water resources management efforts in a spirit of mutual coordination and cooperation. It is also essential that appropriate comprehensive federal wetland protection and preservation legislation, including economic mitigation and compensation provisions, be prepared and considered as separate legislation.

The future environmental and economic well-being of Minnesota as well as other states rests with the development of carefully prepared federal legislation which ensures a meaningful federal-state working relationship.

STATE OF MONTANA,
OFFICE OF THE GOVERNOR,
Helena, Mont., July 27, 1976.

Hon. JENNINGS RANDOLPH,
U.S. Senate, Chairman, Senate Public Works Committee, Suite 4202, Washington, D.C.

DEAR SENATOR RANDOLPH: Montana's position regarding S. 2710 is presented in the enclosed copy of my July 2 correspondence to Senator Lee Metcalf.

The Section 404 permit program of the Corps of Engineers is an unpopular extension of federal authority and an unwarranted usurpation of state and local rights. Because adequate laws exist to regulate stream projects, the duplicative federal regulations would delay if not altogether discourage desirable projects and extract unnecessary expenditures on the part of both landowners and regulatory agencies.

Particularly because the Wright Amendment could help resolve the controversy, Montana urges the support of the Senate Public Works Committee for S. 2710.

Sincerely,

THOMAS L. JUDGE, *Governor.*

Enclosure.

JULY 2, 1976.

Hon. LEE METCALF,
U.S. Senate, Dirksen Office Building, Room 1121, Washington, D.C.

DEAR LEE: According to information recently received from the National Governors' Conference, the House, on June 3, passed HR 9560, the Federal Water Pollution Control Act Amendments of 1976, by a vote of 339–5. This bill is now pending in the Senate as S. 2710.

As passed by the House, the bill contains several provisions of interest and concern to Montanans, including:

1. Amendments to Section 404 (P.O. 92–500).
2. Authorization for the Construction Grant Program for fiscal years 1977, 1978 and 1979.
3. Certification of Construction Grant activities by the States.
4. Extension of the Section 208 Water Quality Planning Program with full federal funding.

Perhaps the most significant of these concerns is the Section 404 authority of the Corps of Engineers to require permits for dredge and fill activities in navigable waters. Under regulations published by the Corps in 1975, they would undertake Phase II of this program July 1, 1976, thereby extending coverage to tributaries of navigable waters.

We, in Montana, are opposed to this further intrusion of federal control onto traditional areas of State responsibility. We also feel this would impose an additional burden on present and future users of Montana's waters, who would have to meet the Corps requirements.

A recent survey by the Interstate Conference on Water Problems indicated that Montana has existing legislation to control nearly all the activities which would be regulated by the Corps under Section 404. The Streambed Protection Act, the Montana Water Use Act, the Floodway Management Act and the Montana Water Pollution Control Act provide a substantial foundation for State control. It should also be noted that Montana was among the first of the western States to be delegated authority by the Environmental Protection Agency for the National Pollution Discharge Elimination System. The Corps program under Section 404, would, therefore, seem to be duplicative of existing State programs, besides being burdensome and costly.

An amendment to Section 404 by Representative Wright of Texas was approved on the floor of the House 234–121, and is contained in S. 2710. I feel it would resolve the controversy now surrounding Section 404, and I, therefore, urge you to initiate prompt Senate action on S. 2710.

With warm personal regards, I am,

Sincerely,

THOMAS L. JUDGE, *Governor.*

STATE OF MONTANA,
DEPARTMENT OF FISH AND GAME,
Helena, Mont., August 13, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works, Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: The proposed Wright-Breaux amendment to the 1972 Water Pollution Control Act will allow accelerated destruction of this nation's valuable and irreplaceable wetlands. As an agency charged with the management of fish and wildlife, much of which is produced in wetland areas, we strongly recommend that the Wright-Breaux amendment not be passed.

We request that this letter be made part of the hearing record.

Sincerely,

WESLEY R. WOODGERD, *State Fish and Game Director.*

STATE OF NORTH CAROLINA,
GOVERNOR'S OFFICE,
Raleigh, N.C., July 28, 1976.

Senator EDMUND S. MUSKIE,
Senate Committee on Public Works,
4204 Dirksen Building,
Washington, D.C.

DEAR SENATOR MUSKIE: The State of North Carolina had hoped to be represented at the hearings conducted by the Committee on Public Works pertaining to amendments to the Federal Water Pollution Control Act of 1972. Unfortunately, we were unable to obtain time on the hearings schedule. I would like to request that the attached statement which outlines our position on the amendments be inserted in the record in lieu of direct testimony.

Your cooperation in this matter is appreciated.

Sincerely,

JAMES E. HOLSHOUSER, Jr., *Governor.*

Attachment.

Because our state was unable to appear before your subcommittee on July 27, I request that this statement be included in the record as North Carolina's position on the Federal Water Pollution Control Act of 1972, including Section 404.

While we certainly endorse the Senate's intentions to undertake a comprehensive review of this legislation next year, we would urge adoption of several proposals as quickly as possible. These include equitable formulas for distributing construction grant funds among the state, more realistic deadlines for completion of mandated water quality management plans, streamlined procedures for the review and approval of wastewater treatment plan applications, and extension of the deadline for compliance with 1977 treatment requirements. In approving HR 9560 the House of Representatives has already adopted several of these much needed changes.

We endorse the Talmadge-Nunn allocation formula, which would be based 50 percent on population and 50 percent on needs, as the most equitable formula for the distribution of "201" construction grant funds. The present formula is riddled with inaccuracies and has been repudiated by EPA. North Carolina is inequitably treated by the formula which is based entirely on needs.

We support the House-passed amendment to Section 203 of the Act, which would permit the consolidation of steps two and three for projects under one million dollars. This revision would clearly expedite the certification of small projects. Presently, in many instances, the current three-step process has caused excessive delays in the completion of small projects.

Water quality management planning as authorized in Section 208 of the Act is another area of critical concern. A recent Federal court ruling mandates the completion of such plans statewide by November, 1978. The experience of regional planning agencies across the country suggests that at least two and one-half years is required to produce a "208" plan, from the date of grant award to the actual approval of EPA. At our request Senator Morgan has proposed an amendment to relate the deadline for plan completion to the award date for the planning grant. I urge your support of that amendment.

Section 13 of the House Bill proposed amendment of Section 301 of the Act to allow extensions of the original deadline of July 1, 1977, for public treatment plants to meet secondary treatment standards. At present, it appears that less than half of the publicly owned plants in the nation will be able to meet those standards. It seems only reasonable to permit defined extensions to those local governments that are making a conscientious effort to attain compliance.

In regards to Section 404, North Carolina would favor the introduction in the Senate of an amendment which would achieve the following:

> A simple moratorium on the enforcement of Phase II and III permit requirements. The Congressional moratorium would remain in place for one year until a comprehensive review of P.L. 92-500 could be undertaken and completed by the next Congress. In the interim, the ACE would continue to require permits in Phase I areas only, and future permit requirements would not affect projects currently under contract for construction.

Our second preference would be as follows:

The Wright/Hart Amendments with certain clarifications and additions . . .

(a) With regard to the Wright amendment:

> The definition of navigable waters should be revised to include waters which have been used in the past as a means of transport in interstate commerce as well as those which are or could be used in this manner, (Section 404(d)(1) of the amendment). This revision would make the Wright definition synonomous with the definition of navigable waters in existing ACE Regulation, 33 CFR 209.120(d)(1) which governs permits under the 1899 Act.
>
> The section outlining the exemption of federal or federally assisted projects which require an environmental impact statement or assessment is too broad. It should be made more specific or eliminated.
>
> Any amendment should include a section which allows the ACE to delegate the permit programs to the states with a provision for penalties. In addition, there should be a provision authorizing mutual agreements between state governors and the ACE to allow designation of wetlands in addition, there should be a provision authorizing mutual agreements between state governors and the ACE to allow designation of wetlands in addition to those covered in the Phase I definition.

(b) With regard to the Hart amendment:

We are supportive of the provision to exempt from permit requirements normal farming silviculture, ranching activities, certain maintenance activities or regulation of farm stock ponds or irrigation ditches.

We support the authority for issuance of general permits.

We are concerned about the use of the wording "minimal adverse cumulative effect" which is vague and can vary greatly depending upon the issuance of regulations. This should be clarified in the Hart Amendment.

A provision for delegation to states of the responsibility for the administration of the permit program should be added.

We support that portion of the Hart Amendment which exempts from permit requirements the maintenance of existing structures, etc. (Section 404, paragraph 2).

STATE OF NEBRASKA,
Lincoln, Nebr., July 23, 1976.

Hon. JENNINGS RANDOLPH,
U.S. States Senator, Chairman, Committee on Public Works, 4200 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Enclosed is a letter rexpressing my views on the matter before your Committee July 27 and 28.

I would appreciate it if the letter could become part of the official record of the hearing proceedings.

J. JAMES EXON, *Governor.*

Enclosure.

STATE OF NEBRASKA,
Lincoln, Nebr., July 23, 1976.

Hon. JENNINGS RANDOLPH,
U.S. Senator, Chairman, Committee on Public Works, 4200 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing to urge favorable consideration of S. 2710 when it comes before your Committee on July 27. It contains a number of important amendments to the Federal Water Pollution Control Act that should be enacted to aid the states' ability to meet our national water quality cleanup goals. I am fully convinced that there must be a closer working relationship between the states and the Federal Government on the water quality endeavor. Enactment of S. 2710 should enhance both the states' and the Federal capability for this necessary cooperation.

I have a very specific interest in Section 16 of the bill which specifically relates to amendments to Section 404 of Public Law 92–500. I will address that in considerable detail. My comments address two major points. One, the present definition of "navigable waters" is an obvious overreach of Federal authority. Secondly, the states have, on the whole, the capability to handle water quality enhancement programs.

I have been involved through the National Governors' Conference and through activities within my own State of Nebraska with the Corps Permit Program for quite some time. My actual involvement came long before the March, 1975, District Court decision to direct the Corps to broaden their enforcement procedures of Section 404. My involvement with this activity originally centered around an attempt by the Corps of Engineers to declare the Platte River in Nebraska a navigable river under Section 10 of the Rivers and Harbors Act of 1899.

This seemed to be an absurd approach, and I objected strenuously to such activities by the Corps of Army Engineers. As of this date, the Platte River has not been declared a navigable stream under Section 10.

It is Nebraska's position that implementation of Section 404 as suggested by the rules and regulations of July 25, 1975 would be an overreach of Federal authority. The amendments contained in S. 2710 are a first step to remedy this situation.

The more specific definition of navigable waters for Section 404 permits is necessary; providing the authority for mutual agreement between the Governors and the Corps to designate any additional wetlands for Federal permit control appears reasonable; and the exemption of the regulation of dredge and fill discharges resulting from normal farming, silviculture, ranching, certain maintenance activities, or regulation of farm stock ponds or irrigation ditches is essential.

Furthermore, I am keenly interested in the provision to authorize the Corps to delegate any functions of the 404 Permit Program to interested states to avoid duplicative programs. Nebraska has been quite involved and has closely monitored the results of an extensive questionnaire provided for state response by the Interstate Conference on Water Problems. This organization representing states'

water interests circulated the questionnaire under contract with the Corps. The purpose of the survey was to provide the Corps of Engineers information on the capability of the states to provide assistance in implementing Section 404 of P. L. 92-500. I have been informed that the Interstate Conference on Water Problems has presented several preliminary reports to the Corps of Engineers and that the Corps of Engineers has made this information available to the Congress and the interested Federal agencies.

One of my staff members, directly involved in the study, has provided me with periodic reports on the ICWP study progress, based on information which has been released by the Corps of Engineers. It is my understanding that the states have many programs which are being duplicated in whole or in part by the Corps of Engineers Section 404 program. This is an unwise use of our scarce state and federal funds and a luxury that we cannot afford in our efforts to clean up our nation's waters. This duplication is also inconsistent with Section 101(f) of P.L. 92-500 which provides for minimization of bureaucratic red tape.

It is also my understanding that many of the states have indicated their willingness to seek duplication of Section 404 programs if Congress amends P.L. 92-500 to permit such delegation. This would be an excellent opportunity for Congress to further implement Section 101(b) of the Act which provides for maximization of state participation.

I have been told that some Federal agencies and environmental groups may oppose delegation because the states "do not have the capability to carry out the program." I would suggest to the committee that the states, if permitted to seek delegation will develop that capability very quickly, if it truly does not exist at the present time. They have developed capability before when it was needed (the NPDES program, for instance), and they can develop capability for the Section 404 program.

In reviewing the preliminary of the ICWP states' survey, a number of state comments appear. Some of the more pertinent comments are as follows:

"Intrusion into and usurpation of states' rights."

"Authority is being extended to waters well beyond the limits of what could be considered in the national interests. Jurisdiction over privately owned artificial canals and reservoirs and over minor tributary streams is unreasonable."

"Cannot survive under the present programs which have complete and unalterable federal dominance. The scope of Section 404 as redefined following judicial interpretation is now too broad and infringes unnecessarily on states' prerogatives. The definition of "navigable waters" needs redefinition and clarification."

"The 404 program is far too broad and greatly exceeds the necessary level of involvement for federal interests. Its red tape is almost certain to create either total nonenforcement or bolster the environmental red tape backlash movement to the detriment of the legitimate goals of the movement."

"Apparently, a central purpose of this questionnaire relates to the probability of state duplication and/or acceptance of Section 404 permit jurisdiction. It is our opinion that the scope of Section 404 is excessive, whether or not states choose to accept a delegation of this authority. The resources and manpower the state or the federal government has to expand in environmental fields is limited and would much more wisely be spent on productive programs."

In summary, I urge your Committee to take affirmative action on S. 2710 and ask for Senate approval as rapidly as possible. The sixty-day phase II implementation delay granted by President Ford has provided time to enact appropriate legislation that will be reasonable.

Sincerely,

J. JAMES EXON, *Governor.*

COMMONWEALTH OF PENNSYLVANIA,
PENNSYLVANIA FISH COMMISSION,
Harrisburg, Pa., July 14, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Committee on Public Works,
Washington, D.C.

DEAR SENATOR RANDOLPH: We have been made aware of the hearings scheduled for July 27 and 28 on the Wright-Breaux amendment of Section 17, H.R. 9560, which although somewhat more palatable than the original Breaux amendment to Section 404 of the Federal Water Pollution Control Act still presents serious danger to the wetlands of the United States. We are opposed to this amendment as being deleterious to the protection presently provided to the majority of this

nation's important marshes, wetlands and recreational lakes. We were extremely disappointed to learn that the Wright-Breaux amendment was not subject to public hearings, and with a matter as complex as this has become, and considering the ramifications of its provisions, we would respectfully urge that the least that be done is to hold public hearings on this amendment. Concurrent with this, we would urge that the U.S. Army Corps of Engineers be permitted to implement Phases I and II of Section 404 apparently in force.

In summary, the Pennsylvania Fish Commission opposes the Wright-Breaux type of language in amending the 1972 Water Pollution Control Act, and urges its defeat—thus saving the Corps of Engineers' permit program presently in force.

Respectfully,

RALPH W. ABELE, *Executive Director.*

COMMONWEALTH OF PENNSYLVANIA,
PENNSYLVANIA GAME COMMISSION,
OFFICE OF EXECUTIVE DIRECTOR,
Harrisburg, Pa., July 13, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Building, Washington, D.C.

DEAR SENATOR JENNINGS: Your Public Works Committee will soon hold hearings on the Wright-Breaux amendment to Section 404 of the Water Pollution Control Act of 1972.

We are unalterably opposed to the language of the Wright-Breaux amendment or any similar language. Our invaluable wetlands must be protected and preserved. We respectfully urge the Committee to consider language to guarantee protection and preservation of these priceless and irreplaceable lands.

Please bring our plea to the attention of the Committee. Thank you.

Sincerely,

GLENN L. BOWERS. *Executive Director.*

SOUTH CAROLINA STATE PORTS AUTHORITY,
Charleston, S.C., July 23, 1976.

Re section 404 hearings.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works, U.S. Senate,
Washington, D.C.

DEAR CHAIRMAN RANDOLPH: Section 404 of the Federal Water Pollution Control Act contains a little noted provision which may cause this State agency, and many other applicants for dredge and fill permits, needless cost and uncertainty. Section 404(c) provides that the Administrator of the Environmental Protection Agency may "prohibit" the specification of any disposal site if he "determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawing and breeding areas, wildlife, or recreational areas)."

Pursuant to this Section, the EPA is authorized to conduct a detailed and lengthly procedure when it invokes its jurisdiction.

The Corps of Engineers conducts a lengthy procedure in its determinations on dredge and fill permit applications pursuant to Section 404(a), the National Environmental Policy Act, the Intergovernmental Cooperation Act and other statutes. In the case of a permit application which involves the preparation of an environmental impact statement and the conduct of public hearings by the Corps of Engineers, these Corps procedures take a very long time to be completed.

Section 404(c), as it is presently written, allows the EPA to invoke its jurisdiction, and to begin and conduct its procedures, *after* the Corps of Engineers' procedures have been completed and *after* the Corps has determined that a dredge and fill permit should issue.

Because EPA is involved in the Corps of Engineers Section 404(a) procedure through comments and coordination on both the permit application and the draft environmental impact statement, the EPA is fully advised of the pendency of a particular permit application while it is pending before the Corps of Engineers.

It seems only reasonable, therefore, that the EPA should be required to exercise its jurisdiction under Section 404(c), if at all, at the same time as the Corps of Engineers is considering the permit application, utilizing the same procedures wherever possible. Duplicate public hearings and intergovernmental coordination could thus be avoided. If the EPA has acted prior to final Corps action, the Corps of Engineers' decision, should it be in favor of issuing the permit, could then be relied upon by permit applicants as being a final administrative determination.

The South Carolina State Ports Authority has recently testified before your Subcommittee on Water Resources on topics related to this point. A copy of that testimony is enclosed. In that testimony we recommended to the Committee an amendment to Section 404(c) which would not change EPA's jurisdiction with regard to dredge and fill permits but which would eliminate duplication and uncertainty from the dredge and fill permit application process.

We have set forth this proposed amendment as a separate enclosure to this letter.

We respectfully request your attention to this unclear, burdensome, costly and unnecessary provision of Section 404(c) and *urge* remedial action.

Your inclusion of this letter as part of the record and your consideration of this issue is appreciated.

Sincerely,

W. Don Welch.

Enclosure.

Testimony of W. Don Welch, Executive Director of the South Carolina State Ports Authority

Mr. Chairman, Members of the Committee: My name is W. Don Welch. I am executive director of the South Carolina State Ports Authority. Appearing with me today are W. W. Johnson, chairman of the Authority Board, and Martin S. Baker, our environmental counsel.

The State Ports Authority serves South Carolina as the agency with general jurisdiction over all port and harbor activities within the state. Its legislative mandate directs it to work toward the development and improvement of the harbors and seaports of the state and toward the increase of waterborne commerce. Since its establishment in 1942, the State Ports Authority has developed a modern and highly-effective ocean terminal system with a major port in Charleston and two important subsidiary ports in Georgetown and Port Royal. South Carolina now has port facilities valued at $220 million; planned expansion will increase this value to about $300 million by 1980. Charleston, now the nation's twelfth largest port in value of trade, is a dynamic port with a steadily growing level of activity.

This subcommittee has recognized the importance to the national economy of the adequate maintenance of harbor channels to required depths. The vast majority of our nation's international trade moves in ships. This trade moving in oceangoing vessels now totals well over $124 billion. A partnership between federal and local interests provides the infrastructure to support this trade. Local interests provide the ocean terminal facilities with direct land and water access. The Federal Government carries the main responsibility in supplying the major channels and waterways. The South Carolina State Ports Authority shares with ports throughout the nation the continuing concern for adequate harbor maintenance in the face of growing economic and environmental challenges. The challenge has brought forward important new issues regarding dredging practices, technological innovation, permit procedures and the roles played between local and federal interest in navigation projects.

In South Carolina, as in many other areas, development of a harbor system has blazed the trail for industrial progress. Access to world markets has become the key factor in the success of commerce, manufacturing and agriculture. Within our state, this positive economic impact benefits not only those seaboard counties where harbor facilities are located, but also major inland manufacturing counties. There is a substantial use of and dependence on our harbors by agricultural and manufacturing interests. A recent study by the University of South Carolina shows that the impact of the port on the state income is more than half a billion dollars. Some 1,500 firms in all of the state's 46 counties use the State Ports system regularly. The direct and indirect employment is 30,000. Also, South Carolina exports 29 percent of its agricultural production, the highest percentage in the nation.

South Carolina ports serve the federal interest in several significant ways. Most importantly, the Port of Charleston has become a favorable balance of trade port with more than 60 percent of its cargoes being exported. The export/import balance shifted favorably toward exports in 1973, and has steadily increased since then. Our ports serve as a door to world markets for American-made goods, especially machinery, newsprint and paper products, and forest products. In addition, the port system has helped to make South Carolina a national leader in foreign investment in manufacturing plants. Firms from more than a dozen nations have invested $1.5 billion in more than 85 major manufacturing plants and service organizations. In effect, this makes the port system a major importer of jobs and capital into the nation.

In grappling with some unique problems in Charleston Harbor, we have developed specialized information on issues that reflect the national concerns. For this reason, we wish to review some specific issues related to Charleston Harbor and to place them within the context of national policy on dredging, harbor maintenance and the federal permit procedures.

SANTEE-COOPER REDIVERSION

The present authorized channel depth at the Port of Charleston is 35 feet. While neighboring ports received approval for deeper channels, Charleston has been held to this depth for many years because of excessive silting and shoaling. Deeper channels would be virtually impossible to maintain without substantial relief of the silting and shoaling. The cause of the silting has been clearly attributed to the diversion of the Santee River water into the headwaters of the Cooper River in 1942. Before then, the Cooper River was more a marine estuary than a river. Fresh water flow was at a gentle rate of less than 100 cubic feet per second. The magnificent harbor into which the Cooper River flowed was clean and clear. Natural water depths in the harbor ranged up to 84 feet.

With the diversion of the Santee River, the hand of man changed the natural order of things. The drainage area of the Cooper River was increased more than 12 times to 15,000 square miles. Fresh water input increased to more than 156 times the natural condition. Some ten billion gallons of additional fresh water come into the harbor each day, carrying millions of tons of silt. This overwhelming increase of silt-laden fresh water completely disrupted the natural flushing action of the tides turning the harbor into a giant silt trap.

It is now necessary to dredge up to 10 million cubic yards of materials each year to maintain navigation channels at even the inadequate 35-foot depth. The Corps of Engineers needs more than $5 million annually to keep the channels, reaches and anchorages at project dimensions. At the same time, large tracts in the harbor area must be set aside as disposal areas. Because of the environmental and fiscal costs, such practices cannot continue indefinitely.

The solution to this drastic problem will be provided in the Santee-Cooper Rediversion Project, a federally-funded project to return the Cooper River more closely to its natural character and hydrology, substantially reducing the volumes of silt and the cost of dredging. This project has been authorized by this committee and by Congress and construction funding has been provided. Continued funding must be provided to make certain that construction proceeds on a timely basis. As construction is expected to take several years, the port must meanwhile continue to cope with massive loads of silt.

AUTHORIZED HARBOR DEPTH

Associated with the Cooper River Rediversion Project is the Charleston Harbor Deepening Project, the harbor improvement project. This project will correct some of the long-term damage of the years of silting, eliminate some channel limitations and enable the port to continue to serve the growing demand for access to the harbor and the world.

The basic facts are simple. The ocean shipping industry is currently going through a major technological revolution. New specialized ships are unlike any ships ever seen before in the history of ocean navigation. They are faster, wider, deeper—and they require wider and deeper channels within which to navigate.

To keep pace with this technological revolution in shipping, the imperatives for Charleston Harbor as recommended by the Corps of Engineers are these: A minimum channel depth of 40 feet in existing channels with 42 feet at the harbor mouth; expansion and deepening of the main anchorage; and enlarging and deepening of the turning basins to assure safety while maneuvering ships.

The need and value of this project has been clearly demonstrated. After thorough review and approval by the Board of Engineers for Rivers and Harbors, the Charleston Harbor Deepening Project has been presented to Congress for authorization this year. Its implementation, together with the annual channel maintenance within the harbor, has focused our agency's attention on the dredging issue and has highlighted what we believe to be a growing national concern.

DISPOSAL OF DREDGED MATERIALS

The current method of disposal of dredged materials calls for the use of disposal areas located either in marshland, wetland or upland sites. The responsibility for providing the disposal sites falls upon our agency, and the cost is borne by the State of South Carolina. The routine practice now is the use of diked marshlands for the reception and detention of materials from the channels. This method causes the destruction of existing life in the marshes. Studies also indicate that the runoff from the disposal areas involves several environmental issues. In addition to the environmental consequences, the procedural and economic burdens imposed by the requirement to make disposal areas available are enormous. In view of this, it is likely that the establishment of additional dredge material disposal sites will be extremely difficult.

In Charleston Harbor the annual amount of dredged material is so great that a disposal alternative which would allow disposal of greater portions of the material at sea is worth consideration. The Corps of Engineers has investigated the use of a special dredge and barge combination which might make transportation to sea an economically favorable alternative. There is an urgent need to have such combination barges and dredge equipment constructed and put into operation throughout the United States.

The effects on the ocean environment and marine ecosystems of dumping harbor spoils at sea are not quantitatively known. The issue of ocean dumping regulation also remains in question. A recent report for the National Ocean Policy Study of the Congress for the committee chaired by Senator Ernest Hollings of South Carolina notes a fundamental disagreement on what the ultimate goals of the Marine Protection, Research and Sanctuaries Act on ocean dumping really are. One viewpoint holds that the Act mandates a banning of ocean dumping while the other contends that the Act calls for strict regulation and the choice of ocean dumping when it is the environmentally best disposal method. The study notes that the Environmental Protection Agency has taken a somewhat ambivalent approach toward ocean dumping and that it is not possible to evaluate properly the direction of EPA ocean dumping control strategy.

On this matter, appraisal from the National Ocean Policy Study suggests that the Marine Protection, Research and Sanctuaries Act may need amendment to clarify the Congressional intent. Practical limitations and the regulatory uncertainty make the pursuit of ocean disposal for current and near-term dredging projects problematic. This situation combined with the severe constraints on developing new disposal areas forces an intensified light on current disposal practices and the use of existing disposal areas.

A timely determination of the federal policy on ocean dumping is essential for any long-range disposal planning. Apparently, existing scientific knowledge will not allow a precise determination on the environmental soundness of ocean dumping. Additional research and development programs on ocean dumping and its alternatives should be undertaken without delay.

In addition, federal policy should seek to simplify and, where possible, eliminate duplicative bureaucratic procedures on dredge and fill permit matters. As it stands today, it is possible for the duplicate procedures embodied in Section 404(c) of the Federal Water Pollution Control Act to occur one after the other rather than being conducted concurrently. Surely, the federal review process on the dredge and fill permits that are typically sought by public port agencies are so long and so complex that it should be possible for all federal reviews to be conducted in unison.

For example, Section 404(c) can be interpreted to allow the Environmental Protection Agency to invoke its jurisdiction at the end of a lengthy review process by the Corps of Engineers, convoke a public hearing, deliberate and issue a finding on the basis of issues which could easily have been identified and addressed long before, while the Corps was conducting its deliberations.

This cumbersome and non-productive process with its long potential delays can produce significant public costs when it involves a public project proposed by a public agency.

DREDGING ISSUES

The South Carolina State Ports Authority is now in the final stages of a federally-funded study on dredging. In investigating both the projected dredging demand throughout South Carolina and the disposal alternatives available, this study has developed information with broad significance. Data from the National Dredging Study and the Dredged Materials Research Program of the Corps of Engineers at Vicksburg, Miss., have been applied to Charleston Harbor's disposal problems. This study has concluded that the solution to our disposal crisis lies in the judicious selection and application of the most modern disposal technology and the development of innovative management for disposal areas. Such plans and techniques could conceivably postpone for years the need for major new disposal areas thereby avoiding the substantial environmental and practical problems associated with disposal area development.

The technology that could extend the useful life of disposal areas for years has been examined in the Dredged Materials Research Project. These include mechanically-assisted dewatering of dredged materials and rigorous engineering and maintenance of dikes. However, the Dredged Material Research Project stopped short of developing specific strategies for applying these technologies. Nor were the questions of funding management costs addressed.

Clearly, national policy as stated in the National Environmental Policy Act supports efforts to avoid or postpone development of new disposal areas through extending the life of existing areas. It should be federal policy to support strategies of management that recognize the value of existing disposal areas and maximize their worth.

For this reason, the South Carolina State Ports Authority believes the development of sound disposal area management plans and practices should be a federal objective. Technology considered in the Dredged Materials Disposal Project should receive practical application in conjunction with federally-supported maintenance or construction projects.

FEDERAL INVOLVEMENT

The procedural complexities associated with harbor maintenance have increased in each recent year. For the most part, this can be attributed to increased environmental concern. These complexities have had corresponding costs. As a result, annual federal appropriations for harbor maintenance have increased each year while in many areas, the effectiveness of the projects has declined. It should be remembered, however, that harbor and channel maintenance represents the single major federal public works commitment to ocean shipping. Extensive non-federal public and private investment shares with the federal government both in the cost of channel maintenance and through the massive capital investment by state and local agencies in port construction.

If the federal-local partnership is to remain viable, the long established principal of participation by local interests obviously must remain. However, port officials throughout the nation have observed an apparent trend to place on the shoulders of the local interests the burden of the new complexities involved in navigation projects. At the 1975 meeting of the American Association of Port Authorities, a resolution on this topic cited a trend toward excessive rigidity by the federal interests in interpreting the conditions of local cooperation. This threatens to create an unreasonably rigid policy which is not in keeping with the historic federal-local partnership. Our own experience with the Charleston Harbor Deepening Project and reports from ports throughout the nation have produced examples of the policies. Such examples include the new local burdens for providing disposal areas that meet strict current environmental criteria, and for assuming the responsibility for water pollution control measures. Federal legislation and policy on environmental matters have to a great extent created these burdens; therefore, federal procedures for implementing them should be reasonable. They should not be an unreasonable burden involving procedural complexities which have no substantive purpose.

We believe the important federal role in harbor and channel maintenance should be emphasized and fully supported in lieu of federal involvement in other port development areas. With this in mind, the South Carolina State Ports Authority has joined with other port agencies in opposing federal government financial assistance for port capital improvement projects. Most port officials share the position adopted last year by the American Association of Port Authorities. This position supports the right of the public ports of the United States to self-development in a climate of free competition. It opposes federal involvement in the direction and control of port and terminal development.

CONCLUSION

The federal mandate to support development of navigation channels in the nation's harbors has a long and clear legislation history. For many years, the federal involvement has proved its importance in serving the commercial and military shipping needs of the nation. In considering the Water Resources Development Act of 1976, this subcommittee has the opportunity to resolve some important issues on dredging and permit matters. To summarize our concerns in a national policy context, we wish to propose a number if positions for consideration by this committee:

First, to extend the useful life of existing disposal areas, federal legislation should authorize the practical applications of disposal area management practices in conjunction with federally-supported maintenance and construction projects. We are submitting suggested draft legislation with this testimony to accomplish this objective.

Second, simplification of the permit process for dredging and disposal projects should be encouraged. We are suggesting a legislative change which would help to accomplish this by coordinating the Corps of Engineers and Environmental Protection Agency review and hearing procedures on dredge and fill permits sought by public agencies.

Third, federal policy on open water and ocean disposal should be clarified to permit such disposal when it is the environmentally sound alternative. To support this, additional research and development programs on ocean disposal and its alternatives should be authorized in conjunction with ongoing dredging and disposal projects.

And fourth, a federal study should be begun to establish reasonable and workable guidelines for local cooperation on navigation projects. This study should specifically address those new burdens which have been ceated by technological change and environmental concerns.

Please accept my thanks for the opportunity to state these concerns and to review our agency's activities on dredging and permit matters. I would gladly respond to any questions you may have.

SOUTH DAKOTA DEPARTMENT OF GAME, FISH AND PARKS,
Pierre, S. Dak., July 29, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Building, Washington, D.C.

DEAR MR. RANDOLPH: The South Dakota Department of Game, Fish, and Parks requests this letter to be entered as part of the hearing record on the Wright-Breaux Amendment H.R. 9560, to Section 404 of P.L. 92–500 (the 1972, Water Pollution Control Act).

We believe that this amendment seriously weakens Section 404 of P.L. 92–500 and jeopardizes many of our country's important wetlands to uncontrolled exploitation and degradation.

We also believe that Section 404 of P.L. 92–500 currently provides many of the environmental controls necessary to maintain stream and marsh integrity and a suitable method of reviewing and commenting on proposed projects.

Sincerely,

JOHN POPOWSKI, *Secretary.*

OFFICE OF THE GOVERNOR,
STATE CAPITOL,
Austin, Tex., July 23, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: I respectfully request that the Senate Committee on Public Works take careful cognizance of and give thorough consideration to the views set out in this correspondence in connection with your oversight hearings on Section 404 dredge and fill permit legislation scheduled for July 27 and 28, 1976, and that it be made a part of your hearing record.

Congressional hearings and related in depth consideration of this vital subject point to the clear conclusion that the traditional and historic definition of "Navi-

gable Waters" serves the present and future best interest of our nation and my state. Further, the role of primary responsibility vested in the states to "prevent, reduce and eliminate pollution, to plan the development and use (including restoration, preservation, enhancement) of land and water resources" must be maintained if a meaningful partnership between state and federal government remains a reality. Senate Concurrent Resolution 82 adopted by the Texas Legislature sets out succinctly these concerns and viewpoint and is included for your consideration and hearing record.

I strongly feel that the "Wright Amendment", Section 16, of S. 2710 as it pertains to Section 404 of PL 92–500, contains numerous positive and remedial provisions worthy of support and favorable consideration by the Senate.

Additionally, further clarification of the intent of Congress to retain and protect the states' role and responsibility in otherwise exempt federal projects might be considered in your oversight deliberations.

Mr. Chairman, I appreciate this opportunity to offer our views and recommendations on this far-reaching matter for your consideration and that of the members of the Senate Committee on Public Works. I trust I may reserve the privilege to file additional material for the record as circumstances dictate.

Sincerely,

DOLPH BRISCOE,
Governor of Texas.

SENATE CONCURRENT RESOLUTION

Whereas, The Congress of the United States has historically affirmed that the primary responsibility for water resource management resides in the states; and

Whereas, In enacting the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92–500), the congress reaffirmed its intent by stating its policy "to recognize, preserve, and protect the primary responsibilities of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources"; and

Whereas, This historic recognition of the authority and responsibility of the states in developing and using land and water resources is placed in serious jeopardy by an interpretation of the Federal Water Pollution Control Act Amendments of 1972 by the United States District Court in the case of Natural Resources Defense Council v. Calloway; and

Whereas, Regulations drafted by the United States Corps of Engineers responsive to this district court action, if carried to conclusion would substantially expand the federal authority over the lakes, streams, rivers, and wetlands of the United States to the detriment of the exercise by the several states of their traditional responsibilities; and

Whereas, The effect of implementing, the regulations published by the Department of Defense Corps of Engineers and the Environmental Protection Agency in the Federal Register, Volume 49, Number 68, Tuesday, May 6, 1975, would be to deprive the State of Texas of its authority to carry out its responsibility for land and water resource conservation and preservation in the following regards:

(a) sound cultural and conservation practices that have brought productivity through change to millions of acres of land would be restrained, and federal permitting authority extended to all natural and artificial lakes (including stockponds), rivers, streams, and wetlands;

(b) dredge and fill operations in the thousands of square miles of land protected by levees would be unnecessarily regulated, and Texas farmers could be required to obtain a federal permit before plowing or land levelling operations;

(c) orderly processes of state water rights administration would be interrupted;

(d) agreements for operation of interstate streams under compact between states, with the consent of the Congress of the United States, would be infringed upon: Now, therefore, be it

Resolved, That the Senate of the 64th Legislature of the State of Texas, the House of Representatives concurring, meeting in Regular Session in the Capital of Texas at Austin, hereby memorialize the Congress of the United States, requesting that the congress amend and revise the Federal Water Pollution Control Act Amendments of 1972 as may be required to insure that the Environmental Protection Agency and the United States Corps of Engineers comply with the intent of congress that they are to recognize and rely upon the states in the exercise of primary responsibility for development, use, restoration, preservation, and enhancement of land and water resources; and, be it further

Resolved, That the 64th Legislature authorize and request that Dolph Brancoe, Governor of the State of Texas, take all actions proper and necessary to assure the administrative and judicial protection of the equitable and reasonable authority of the State of Texas in exercising its primary responsibility for its land and water resources; and, be it further

Resolved, That the State of Texas, its Governor, Lieutenant Governor, Speaker of the House of Representatives, and the 64th Legislature assembled in Regular Session, are mutually and unalterably opposed to the expansion of federal authority over land and water resource management as would follow from implementation of the proposed rules as published

_____ _____,
President of the Senate. *Speaker of the House.*

I hereby certify that S.C.R. No. 82 was adopted by the Senate on May 19, 1975.

[SEAL]

_____ _____,
Secretary of the Senate.

I hereby certify that S.C.R. No. 82 was adopted by the house on May 27, 1975.

_____ _____,
Chief Clerk of the House.

Dolph Briscoe,

STATE OF UTAH,
OFFICE OF THE GOVERNOR,
Salt Lake City, Utah.

Hon. EDMUND S. MUSKIE,
Chairman, Senate Subcommittee on Environmental Pollution, U.S. Senate, Washington, D.C.

DEAR SENATOR MUSKIE: The State of Utah wishes to make the following statement for inclusion into the record of the hearings to be conducted on July 27 and 28, 1976 to consider among other things the amendment to P.L. 92-500 as proposed by House Bill No. H.R. 9460 which included the Wright amendment. It is my understanding that the Senate version of this same bill is covered by Senate Bill No. 2710. Utah is in support of the House passed bill, including the Wright amendment for the following reasons.

The State of Utah is appreciative of efforts of Congress and the Federal Government in attempting to correct past problems with dredge and fill operations in the waterways of the United States. We recognize the immensity of the problems and certainly want to work cooperatively in finding the proper solution. In this regard the State already has control programs in effect, and feels that if the Federal Government were to be involved in this area, it would be a duplication of the efforts already being carried out by the State Engineer and his staff and would, therefore, vigorously oppose the implementation of Phases II and III of the July 25, 1975, Rules and Regulations.

Utah would encourage a favorable committee report on S. 2710, which if passed by the full Senate and signed by the President would eliminate the unnecessary and duplicative administrative control.

Thank you for your consideration of Utah's position.

Sincerely,

CALVIN L. RAMPTON, *Governor.*

STATE OF WASHINGTON,
OFFICE OF THE GOVERNOR,
Olympia, Wash., August 6, 1976.

Re House amendments to section 404 of the Federal Water Pollution Control Act.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Committee on Public Works, 4200 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I wish to take this opportunity to express my views in relation to the hearing which was conducted by your committee with regard to the subject matter on July 27 and 28, 1976, in Washington, D.C. This is to request that you incorporate my views into the record of that hearing.

Section 404 has always troubled me. During the hearings and other discussions with the House and Senate Public Works Committees' members and staff in

1971–1972 relating to the development of Public Law 92–500, I opposed the inclusion of section 404 as part of the Federal Water Pollution Control Act.

My reasons for opposition were basically three: (1) there should be only one federal agency involved in the regulation of the discharge of pollutants and related activities under the Federal Water Pollution Control Act, namely the Environmental Protection Agency, (2) the coverage of section 404 was ambiguous in terms of both geographic coverage and activities subject to its provisions, and (3) section 404 appeared to provide an unneeded and duplicative planning and regulatory program for shorelines and wetlands for states, like Washington, which have recently embarked upon comprehensive shoreline (and water) management programs (see Chapter 90.58 RCW, the State of Washington's "Shorelines Management Act of 1971").

I continue to have serious concerns about section 404. In this regard, I generally support the approach of section 16 of H.R. 9560. The approach of the House Bill to reduce the geographical coverage is sound. Likewise, the spirit of exemptions involving "normal" farming and silviculture practices is meritorious. Most importantly, I support the concept of "delegating" to states the responsibility of carrying out "404" type programs as embodied in section 16(j) of H.R. 9560. Likewise, I support the "agreement" approach to regulation contained in section 16(f). The State of Washington is willing and able to accept the invitation of these sections. (Indeed, you should be aware that the United States Department of Commerce approved the State of Washington's shoreline management approach under the Coastal Zone Management Act of 1972 on June 14, 1976. This is the first and only approval ever made by the Secretary of Commerce of a state program.)

I note that the words of H.R. 9560 may need further refinement to set aside ambiguities which now appear to exist. For example, the definition of "wetland" and related wording of section 16 may need clarification. The same is true of the "normal" activities contained in the sub-section. Likewise, the standards for delegation of a 404 program to a state might well be expanded beyond the very general wording now contained therein.

In summary, I urge that serious consideration be given to the passage of the "Wright" approach contained in section 16 of H.R. 9560. Section 404 is now a subject of great confusion. The Corps of Engineers appears confused about how to implement the section. The Corps' confusion has, in turn, caused not only confusion but frustration and anger among the public. Further, the section, without effective implementation, is not an effective force for protection of the environment.

Thank you for the opportunity to provide my views. I would, of course, be glad to explain my views at your request.

Sincerely,

DANIEL J. EVANS, *Governor.*

STATEMENT OF ED HERSCHLER, GOVERNOR OF WYOMING

Mr. Chairman, on July 25, 1975, the U.S. Army Corps of Engineers issued regulations pursuant to a court order, providing for further implementation of Section 404 of the Federal Water Pollution Control Act. The State of Wyoming has subsequently filed suit against the Corps, challenging the legality of the regulations. Among our contentions is that the definition of "navigable waters" in the regulations is above and beyond the authority of the Corps of Engineers as provided for by Congress.

Since passage by Congress of the 1899 Rivers and Harbors Act, the Corps has been charged with the protection of navigable waters of the United States. This jurisdiction has traditionally been limited to waters which are susceptible of use for the transport of interstate or foreign commerce in their present condition or with reasonable improvement. A review of the legislative history of the Federal Water Pollution Control Act indicates that Congress did not intend to expand this traditional jurisdiction through Section 404. To the contrary, Congress intended to maintain the Corps' traditional authority separate from other provisions of the Act. Section 404 was to add water quality considerations to the existing permit system used by the Corps under the 1899 Act. Contrary to other portions of the Federal Water Pollution Control Act, no provision was made for transfer of administration of that program to the states or to involve states or local governments in consultation or planning.

However, in the case of NRDC vs. Calloway (392 F. Supp. 687, 1976), the Corps was ordered to publish revised regulations interpreting the phrase "navi-

gable waters." My understanding is that the purpose of the lawsuit was to protect wetlands, mud flats, swamps, and marshes. Unfortunately, under the new regulations, the Section 404 program would reach such activities as irrigation projects, stock watering ponds, small forestry activities, small intrastate lakes, and other bodies of water which could not conceivably be used at any time for interstate commerce. Many of these activities have been traditionally regulated by state law. I contend that continued state regulation in this area is more appropriate and effective than intervention by a federal agency.

Complying with the regulations will be a great hardship upon farmers and ranchers in areas such as Wyoming. Nor will there be any resulting benefits to the environment and particularly not to any areas which could be considered as wetlands. Destruction of wetland areas is simply not a significant problem in Wyoming. Yet our citizens will be forced to undergo great expense and inconvenience to comply with these regulations.

State highway and transportation officials are also very much concerned about the impact of the regulations. Phase II of the regulations could preclude construction of a proposed bridge to be constructed by the Wyoming Highway Department across the Platte River in Casper, Wyoming. After July 1, 1977, there will be approximately 40 stream crossings contemplated by the Wyoming Highway Department which would require a Corps permit.

It is my belief that the Wyoming Highway Department has had an exemplary record regarding environmental practices. Local landowners have long harvested our highway rights-of-way due to the success of our revegetation practices. The Department has a cooperative agreement with the Wyoming Game and Fish Commission allowing them to work together for environmental protection. The Department has constructed bridges and experimented with fences to facilitate antelope migration. The Department has also constructed channel modifications to sustain fisheries, has rebuilt a fishery on the Laramie River, and is presently designing an automatic deer pass for installation near Laramie, Wyoming.

Therefore, I believe that we are perfectly capable of handling any environmental matters concerning dredge and fill operations in Wyoming streams through our present state programs.

Assessment of the Corps permit program by our state agencies indicates that it not only will expend vast resources in processing unnecessary paperwork but will divert the Corps from protecting those coastal wetlands that truly require immediate attention. It is estimated by the Corps that the permit applications for Section 404 will increase to at least 20,000 next year and at least 30,000 the year after. This will require an increase in personnel of 600 employees. This does not include enforcement activities.

There has been discussion of simplifying this process by having the Corps issue general permits, instead of individual permits for each operation. However, the general permit program has not yet been successfully implemented and there is doubt as to whether the Corps is truly committed to it. Also, there is a good chance that such general permits might be declared invalid following a legal challenge.

I support efforts to protect the nation's water quality and wetlands. However, such protection can more effectively be undertaken through the Corps exercising its traditional protection of wetlands adjacent to navigable waters as that term had previously been defined. Furthermore, the Coastal Zone Management Act permits federal, state and local governments to exercise authority over environmental problems arising with regard to wetlands.

Accordingly, I support the resolution of the National Governors' Conference urging Congress to enact legislation which would limit the criteria of navigability to waterways having present capabilities for transporting commerce.

SPRING VALLEY, CALIF., *July 17, 1976.*

SECTION 404—CLEAN WATER ACT

Having followed the Clean Water-antipollution legislation for many years, and having observed both good and bad Corps of Engineer projects, I must respectfully request that Sec. 404 be sustained in its present form until all phases have been completed. Amendments proposed on guess work may have to be amended and amended . . . a costly and timely and emotional method of dealing with ill-advised protests.

Wetlands deserve the most careful planning and long range consideration that is possible for our great Congress to propose. They are irreplaceable in many instances.

Thank you.

HARRIET ALLEN.

MOUNTAIN VIEW, CALIF., *July 23, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Bldg., Washington, D.C.

We must retain at maximum strength section 404 of the New National Water Pollution and Control Act . . . The Corps of Engineers' jurisdiction to provide federal protection to estuary systems and wetlands is absolutely mandatory and critical to the very welfare of our country . . . without this protection, the New Fishery Conservation and Management Act, to be implemented over a ten year period will be an empty piece of legislation . . . without this type of protection for our anadromous fishes—salmon, steelhead trout, striped bass, etc.—it is meaningless.

Fresh water wetlands and estuary systems are an important sanctuary for the fishes that provide our huge inland angling and commercial catch. The Commerce Department's National Marine Fisheries Service estimates that 30 million salt water recreational fishermen annually spend 1.25 billion dollars angling for a catch of edible finfish that equals the U.S. commercial catch . . . more than 25 of the most important commercial species of finfish, crustaceans and mollusks are dependent on estuaries at some stage in their development.

Why regulate commercial fishing out to 200 miles, while not regulating and destroying the fragile habitat and nursery areas that provide a huge portion of commercial and recreational food resources?

Section 404 must remain as it was originally conceived.

I would appreciate it if this letter would be made a permanent part of the hearing record. Thank you.

ED HENKE,
Board of Directors, American League of Anglers.

AMERICAN NATIONAL CATTLEMEN'S ASSOCIATION,
Washington, D.C., July 27, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Committee on Public Works, 4204 Dirksen Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Thank you for your letter of July 19, 1976 advising me as to the procedure the Committee will follow in receiving oral testimony relative to implementation of Section 404 of the Water Pollution Control Act of 1972.

ANCA regrets that time precludes the consideration of all witnesses to appear and present testimony. Respective of the Committee's decision, we submit the enclosed document, Effects and Concerns of Section 404 (P.L. 92-500) on the U.S. Beef Cattle Industry, for the hearing record. This document was prepared by ANCA's Environmental Sciences Committee under the direction of Dr. B. P. Cardon, Chairman.

The American National Cattlemen's Association is the national spokesman for the nation's beef cattle industry. It is the only organization serving all segments of the beef cattle industry—including cattle producers, feeders, and breeders. We are a 79-year-old, non-profit trade association which represents approximately 250,000 professional cattlemen across the United States. Membership includes individual members, 45 affiliated state cattle associations, and 14 affiliated national breed associations.

We are pleased to provide this information as source input to the Committee for consideration of this important issue. Assuredly, we appreciate having been offered the opportunity to comment on behalf of America's largest segment of agriculture.

Cordially,

C. W. MCMILLAN, *Executive Vice President.*

Summary, Effects and Concerns of Section 404, Public Law 92-500 on the U.S. Beef Cattle Industry

SOCIAL CONCERNS

Cattlemen are citizens engaged in an industry which provides food and fiber for a consuming nation. Actions such as the Corps' 404 authority affect their social well-being just as other Federal regulations affect other segments of American society. What then are cattlemen's social concerns?

1. Cattlemen feel strongly that Congress has an inherent right to define "navigable waters" and "waters of the U.S." Expansion beyond the historical definition intrudes on their right to own and manage private property in a manner commensurate with their needs and for the well-being of their fellow man. Those rights are vested in fee title property and in water rights where, in many states, they are deemed property rights.

2. Cattlemen feel the Corps' authority tends to discount the historical and proven benefits of self regulated, sound conservation practices.

3. Cattlemen feel that allowing a Federal agency to promulgate regulations predicated upon such terminology as "normal farming" and "ranching activities" constitutes an action of grave Federal oversight. Further, this shows a lack of understanding for American agriculture of which the beef cattle industry is the largest segment. Such uncertainty of definitions raises havoc with a cattleman's ability to make sound management decisions in an industry that is economically viable, volatile, and which requires long range planning.

4. Cattlemen feel strongly that Congress has allowed a Federal agency to effectuate public law through administrative fiat. This concern rests with the Corps' questionable authority to issue "general permits." If this precedence is allowed to stand, it will fly in the face of the Congressional intent of PL 92-500. Congress recognized a distinction between point and non-point sources of water pollution. Permits under the Act were necessary for the control of point source discharges which required end of pipe treatment. In accepting the "general permits" concept, Congress sanctioned the Corps' right to control all non-point sources of pollution by end of pipe treatment subject to NPDES permit requirements. This concept, in effect became a "new source." [1]

5. Cattlemen are concerned that their livelihoods are being threatened by a continual barrage of new Federal regulatory expansion of authority and power. Such actions play heavily on the minds of men and women who work long and arduous hours producing food and fiber, hopefully, for a profit for the purpose of maintaining their economic viability and improving their standard of living.

EFFECTS ON THE ECONOMIC VULNERABILITY OF BEEF PRODUCTION

Prices received for cattle by farmers and ranchers are a function of supply and demand at the time of marketing cattle. The cattle business is not a margin added business where margins are added to costs of materials like conventional manufacturing or merchandising businesses. Cattle prices are, in effect, a "residual" after the costs of production are absorbed. In essence, costs cannot be passed through in the short term economic cycle.

Currently, the industry is struggling to recover from one of its worst downward economic cycles. Permit costs, which are required under Section 404 for farmers and ranchers, must then be absorbed as a cost of production which lowers profitability. Under current market conditions, these losses are being sustained; this means compounding losses thereby minimizing recovery.

CATTLE PRODUCTION COSTS AND PRICES

The beef cattle industry has three major phases: (1) farmers or ranchers who own basic herds and produce feeder or breeding cattle; (2) stocker operators whose pastures put additional weight on feeder cattle prior to the cattle entering a feedlot; and (3) cattle feeders who finish cattle in feedlots for marketing. Most retail cuts of beef come from grain-fed cattle.

The USDA average price for Choice beef for the first six months of 1976 was $1.42 per pound. This reflected back to these averages in returns to the different segments of the cattle industry.

[1] Procedure for complying with proposed regulations on preparation of Environmental Impact Statements for New Source Permits—40 CFR Part 5 Federal Register, Oct. 9, 1975 (also see attachment).

	Price per hundredweight	Total price per head	Total cost per head	Profit (or Loss) per head
400 lb calf [1]	$43.04	$172.16	$200.00	$(27.84)
600 lb feeder animal [1]	40.50	243.00	[2] 228.16	14.84
1,000 lb fed animal [1]	40.68	406.08	[3] 443.00	(36.20)
For industry as a whole				(49.20)

[1] Cattle-Fax statistics.
[2] Costs include feeder calf plus cost of adding 200 lbs of grain.
[3] Costs include yearling animal plus cost of adding 400 lbs of grain.

Under the circumstances shown above, the stocker operator made a profit on each animal based on average prices for the first six months of 1976. However, the basic producer lost a substantial amount per head as did the cattle feeder. Situations for the various segments of the industry vary from year to year, or even from month to month. In some situations, no segment may show a profit, or perhaps only will have a return. There are no extended periods when a cattleman will show a profit every year. His hope is that profits in good years will be more than enough to offset losses in adverse years.

Against that economic background, add the Corps' permit costs of $100—a minor cost in terms of one permit. However, one must consider the cost of additional permits which are required, i.e., Section 402 for feedlots and irrigation return flows and state and local permits for odor control, pesticide application, weed control, transportation, etc. It adds up to a healthy sum.

ENVIRONMENTAL CONCERNS

Cattlemen recognize their role in helping this nation to achieve a national goal of clean water. The beef cattle industry accepts this challenge and is moving toward achieving the goal of clean water. However, that goal must be realistically achievable and must be equated proportionately with all economic, social and environmental considerations affecting the industry.

CONCLUSION

The beef cattle industry firmly believes that legislative remedies do exist. It is for these reasons we support the House adopted language to the bill HR 9560 (now S. 2710) or comparable language as embodied in the so-called Wright/Breaux provisions of S. 2710 which could be adopted in other legislative measures currently pending before the U.S. Senate.

AMERICAN NATIONAL CATTLEMEN'S ASSOCIATION,
Washington, D.C., December 9, 1975.

Re 40 CFR PART 6, New sources NPDES permits environmental impact statements.

OFFICE OF FEDERAL ACTIVITIES
U.S. Environmental Protection Agency,
Washington, D.C.

GENTLEMEN: The American National Cattlemen's Association, (ANCA), the national spokesman for the beef cattle industry, is appreciative of the Agency's desire to grant an extension of comment time in regards to the preparation of environmental impact statements for new point source NPDES permits.

The review of this matter was conducted by the ANCA Environmental Sciences Committee under the direction of Dr. B. P. Cardon, Chairman. Specific references and technical language review and comment were developed and reflected herein by Dr. John M. Sweeten, technical advisor to the Committee and currently Agricultural Engineer, Animal Waste Management, Texas A & M University.

ANCA recognizes that EPA feels compelled to meet the requirements of developing final regulations for the October 9, 1975 Federal Register notice as mandated by Section 511(c)(1) of PL 92-500. We do feel remiss that the Agency did not recognize the "conflict of law", technical complications and economic ramifications inherent within the framework of such a proposed promulgation of rulemaking procedure.

This procedure we feel is contrary to sound and responsible rulemaking since the feedlots category for animal agriculture is still in itself in a rulemaking process as a result of the NRDC vs. Train decision.

ANCA strongly recommends that this procedure be withdrawn until such time as 40 CFR Part 125, NPDES concentrated animal feeding operations is complete (scheduled for promulgation on March 10, 1976).

ANCA feels that this process is unnecessary and only duplicates the provisions which are necessary prior to application for an NPDES permit, which essentially covers all environmental considerations.

It only follows that such actions will precipitate additional and unwarranted time delays and severe economic burdens.

The application of the Environmental Impact Statement procedure to agriculture is contrary to Section 101(f) of PL 92–500.

ANCA recommends the following revisions to 40 CFR 6 insofar as they represent the beef cattle industry's "spirit of willingness" to be cooperative in this matter. We do not, however, hesitate to point out that such recommendations appear nonproductive in light of the aforementioned discussion. We invite you to refer to the attached enumeration of the 14 steps described in Section 6.906 to 6.918.

Section 6.906(c) requires potential new source applicants to return the completed New Source Environmental Questionnaire at least 9 months prior to commencement of construction of the facility (see step 3 of the attachment). We feel this 9 month lead time is unnecessary. The EPA Region VI office in Dallas has already gone through a facsimile of the proposed 14 step EIS procedure prior to processing NPDES permits for two livestock feeding operations: a dairy in Louisiana and a feedlot in Texas. In both cases EPA was able to issue "negative declarations" (i.e. reached step 8(b)) within only two months. The extra 7 months would have been needlessly wasted in both cases. Therefore, we suggest reducing this 9 month minimum lead time to 60 days. This will reduce the vulnerability of the applicant to reversals in economic and market conditions.

Section 6.906(g)(4) requires the applicant to submit "an adequate environmental assessment unless the responsible official determines that the new source and environmental questionnaire is an adequate environmental assessment." To lessen the need for expensive (contracted) environmental studies and report writing, we suggest that the questionnaires for agriculture be sufficiently simple to interpret yet comprehensive as to avoid the need for the voluminous environmental assessment reports. This alone will cut many thousands of dollars and months of time off the EIS procedure. The applicant and the government will benefit equally. If the proposed operation has shortcomings, the applicant can spend the time and money finding a new location or altering the design instead of fruitlessly developing environmental assessments for a project that will later prove unacceptable.

A paragraph (e) should be added to Section 6.912 "Draft Environmental Impact Statements" to explicitly empower EPA's "responsible official" to overrule irrational or frivolous objections that may be brought by persons (a) neither directly nor indirectly affected by the proposed action, (b) who are clearly misinformed concerning the environmental consequences of the proposed operations, (c) whose concerns are hypothetical rather than real, and/or (d) who express opposition as a form of blackmail, seeking for example a "payoff" from the applicant in exchange for retraction of opposition.

Finally, we suggest you amend the definition of "new source" in Section 6.902(c). The earliest date from which to define "new source" should be the date of promulgation of the final version of these October 9th regulations. To make these regulations retroactive as proposed to the date of publication of proposed "standards of performance" (September 7, 1973 for the livestock feeding industry) is contrary, we feel, the Congressional intent as set forth in the Congressional Record, October 4, 1972, pp. S16869–79. Reference is made to the final report of the Senate-House Conference Committee on PL 92–500 which discussed Section 511(c)(1) in detail. Two quotes from page S16878 are expecially pertinent in setting an effective date, and are as follows:

"The purpose of this bill is to set rapidly in motion an effective water pollution control program. The Act sets tight time limits within which the Administrator must take a multitude of actions, each heavily dependent upon the other, that will, in the aggregate produce a meaningful, effective, and truly workable program as quickly as possible. Should the Administrator find himself confronted with substantive or procedural requirements extraneous to this Act, the very program that the Act seeks to establish would be imperiled."

"The Conferees believe that the owner or operator of what is to be a new source has a degree of flexibility in planning, design, construction, and location that is not available to the owner or operator of an existing source."

The requirement that the October 9th proposed regulations be applied retroactively to operations built as much as two years ago is clearly counter to Congress' intent. It would be a frustrating exercise in "busywork" both for the applicant and for EPA that the Act sought to avoid. These operations have already been built, and flexibility in location, planning, design, and construction no longer exists. The only way to change them is to physically tear them down.

These EIS regulations should have been enacted at the same time the new source performance standards were established.

In conclusion, ANCA supports the position that: (1) The proposed regulations be withdrawn from the Federal Register; (2) full public hearings be conducted to inform, enlighten, and advise all parties affected of the economic and social impact of the proposed rulemaking; and (3) request that this matter be remanded back to the Congress of the United States for review and corrective legislation.

Your consideration in this matter is appreciated.

Sincerely,

C. W. McMillan, *Executive Vice-President.*

Enclosure.

Procedure for Complying With Proposed Regulations on Preparation of Environmental Impact Statements for

ACTION STEPS

1. Applicant notifies the EPA responsible official.
2. Responsible official provides potential new source applicant with New Source Environmental Questionnaire (NS/EQ).
3. Applicant returns completed NS/EQ at least 9 months prior to construction.
4 (a) Responsible official makes Initial Determination of whether the facility is a "new source", or (b) solicits additional information, then makes Initial Determination.
5. Responsible official notifies applicant that he must submit an Environmental Assessment: (a) Applicant or other interested person requests adjudicatory hearing.
6. Applicant submits Environmental Assessment and any pertinent data.
7. Responsible official conducts Environmental Review to determine if Environmental Impact Statement is needed (i.e. action will have significant effect on human environment): (a) If "yes", skip to Item No. 9; and (b) if "no", see Item no. 8.
8. EIS Not Needed: (a) Responsible official prepares Environmental Impact Appraisal; (b) responsible official issues Negative Declaration; (c) responsible official receives and evaluates Comments on Negative Declaration; (d) if decision is changed, go to Item No. 9; and (e) if decision is upheld, process NPDES Permit Application (Go to Item No. 14.)
9. Needs EIS: Responsible official prepares and issues Notice of Intent to issue EIS.
10. Responsible official prepares and issues Draft Environmental Impact Statement (EIS).
11. Review of Draft EIS: (a) Responsible official receives comments (45 day minimum comment period); and (b) If "significant interest" develops, a public hearing is convened.
12. Responsible official prepares Final Environmental Impact Statement.
13. Responsible official issues final Environmental Impact Statement: (a) Issues news releases; and (b) distributes copies of final EIS to interested persons.
14. Administrative Action taken on NPDES Permit (Note: No such action can be taken until 90 days after release of draft EIS and 30 days after release of final EIS.)

American Paper Institute, Inc.,
Washington, D.C., July 15, 1976.

Hon. Jennings Randolph,
Chairman, Committee on Public Works, Dirksen Senate Office Building, Room 4204, U.S. Senate, Washington, D.C.

Dear Mr. Chairman: We understand that you have announced your intention to conduct hearings July 27 and 28 concerning amendments to the Federal Water Pollution Control Act.

I am writing to inform you of the American Paper Institute's keen interest in this matter and to request that we be given time to testify. Our industry is seriously affected by the regulatory program that was to be implemented this month by the Army Corps of Engineers for the discharge of dredge or fill materials under Section 404 of the Federal Water Pollution Control Act. We do not believe the Congress intended for this provision of the Act, ostensibly covering disposal of spoil material, to have such sweeping effect on normal and accepted silvicultural activities.

This is but one of several aspects of the Federal Water Pollution Control Act which we hope the Committee will review as it considers "mid-course corrections" recommended by the National Commission on Water Quality. While there are other provisions of the Act which we will suggest to be reviewed by your Committee next year, we feel that the matter described above deserves the Committee's immediate attention and prompt resolution. We sincerely hope that we will be able to appear in person to help your committee deal with this pressing need this year. If that should be impractical, we request that we be permitted to submit written testimony.

We look forward to hearing from you at an early date as to when this might be possible.

Respectfully,

STANLEY W. HULETT,
Vice President, Government Affairs.

ASSOCIATION OF AMERICAN RAILROADS,
Washington, D.C., July 30, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, United States Senate, 5121 Dirksen Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: The Association of American Railroads, whose members operate over 97 percent of the rail track mileage in the United States, urgently requests that you and members of your Committee give favorable consideration to the amendments to Section 404 of the Federal Water Pollution Control Act (33 USC 1344), contained in Section 16 of S. 2710 as passed by the House of Representatives.

The jurisdiction of the Corps of Engineers has been unnecessarily expanded through recently adopted regulations governing the issuance of permits for the discharge of dredged and fill materials under Section 404 of the Federal Water Pollution Control Act. We believe that the amendments to Section 404 contained in Section 16 of S. 2710 as passed by the House of Representatives would realistically limit the required permits to those instances in which there is a potential for significant impact on water quality, and would preclude the serious and expensive delays in the completion of railroad improvements and construction projects which would otherwise result under the existing regulations of the Corps of Engineers.

Sincerely yours,

STEPEHN AILES.

ANNE ARUNDEL COMMUNITY COLLEGE,
Arnold, Md., July 20, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing to express my opinions concerning the planned revision of Section 404 of the Federal Water Pollution Control Act. I would like my statements to be included for the record of the Hearing of July 27–28, 1976, on Section 404 of the Clean Water Act.

Since Section 404 is a three phase program, and only Phase I has been implemented, it is premature to hold hearings and consider amendments until the full program has gone into effect.

If amendments must be made, then the Hart-Cleaveland Amendment is preferable to the Wright-Breaux House Amendment because it specifically addresses and clarifies those issues mistakenly raised by those who oppose further regulation under Section 404. It would write exemptions into law and provide for the General Permit Program already planned in Phases II and III. It would also provide a progress report to be reviewed by Congress at the end of the next year.

The Wright-Breaux House Amendment would leave virtually unprotected vast areas of valuable wetlands which do not happen to fall within a narrow definition of "navigable waters". Many of these areas are used for drinking water supplies and Section 404, under the House Amendments restrictions, would no longer be used to stop the discharge of polluted dredge materials into these valuable tributaries.

Our wetlands are valuable for many things other than navigation and waste disposal. The importance of these complex and productive ecosystems has been demonstrated time and time again and it would be redundant for me to reiterate in detail here. The important thing is that they are a natural resource and belong to the people of this country. They need adequate protection to insure the continued survival of a healthy, high-quality environment for our nation's citizens. Indeed, the very quality of life itself may be dependent on them. What happens when the marshes are all drained and filled and the streams are all channelized and the bay fronts are all bulkheaded? What does it mean to say goodbye to the marsh grass and to obliterate the mussel beds? This will mark the end of living and the beginning of survival.

Sincerely yours,

DAVID H. WILLIAMS,
Assistant Professor of Biology.

AMERICAN ROAD BUILDERS' ASSOCIATION,
Washington, D.C., July 26, 1976.

Hon. JENNINGS RANDOLPH,
United States Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: We all agree that a strong effort should be made to reduce the pollution of waterways. The Section 404 water permit program, as it applies to the highway construction industry, presents a classic example of a well intended Federal action which is unnecessary. It is extremely difficult and highly undesirable to administer, wasteful of time, effort and money.

The problem, as it applies to highway construction, is that of applying reasonable pollution controls to highway construction activities as they impinge on lakes, streams and wetlands. The great majority of these controls apply to routine construction activities incidental to the building of bridges and the installation of culverts. These activities include the disturbance of stream beds and the placement of soil or other materials in the water. The simplest and best way is to include within the construction specifications the precise procedures which are to be followed.

Only a very few cases involve unusual activities of an environmentally sensitive nature, for example, the construction of a highway across wetlands. In this case, a careful assessment of the environmental disturbances is obviously required. This assessment, by means of the environmental impact statement, is reviewed by all appropriate agencies. Thus, there are two very effective procedures available. One to cover impacts of a routine and repetitive nature and one for more unusual cases.

The Water Pollution Control Act of 1972 directed the Corps of Engineers to require permits for dredge and fill operations in navigable waters. There appears to be sound justification for this requirement in view of the long-standing special responsibilities of the Corps with respect to navigable waters. Congress apparently had this in mind in enacting Section 404. Our concern is not with the 1972 Act, as enacted, but with the decision of the U.S. District Court of the District of Columbia interpreting "navigable waters" to mean "all waters of the United States."

The economic costs of the Court-ordered process will soon become apparent. The Corps of Engineers established a three-phase implementation program. Phase I, effective July 25, 1975, limited the permit program to coastal waters, inland navigable waters and nearby wetlands. Phase II, which was to have become effective July 1, 1976, extends coverage to lakes with more than five surface acres, primary tributaries of inland navigable waters, and nearby wetlands. Phase III, scheduled to be effective July 1, 1977, essentially will cover "all waters of the United States." The principal delaying effects of the program therefore have really yet to be felt.

If the permit program is to have any value whatever, the Corps must undertake a careful examination of the merits of each application. Consider the mere volume of permit applications expected, up to 50,000 annually. It seems reasonable to anticipate a time period of at least 60 to 90 days for the processing of such ap-

plications. The Corps itself is suggesting that applicants make timely submissions and to allow for delays in the processing of paper. This requires an otherwise unnecessary time "freeze" in the plans and specifications.

This in itself is a serious cost consideration. Highway agencies normally hold prebid conferences with prospective bidders to discuss any special procedures and precautions which contractors should take into account in preparing their bids. Frequently a post-award conference is held with the successful bidder to further discuss scheduling and procedures. These discussions often result in finding a "better way" to expedite the work. Such "better ways," of course, could not be employed if they resulted in any departure from the procedures submitted earlier to the Corps of Engineers.

The great tragedy of the Clean Water program is that it is failing to measure up to the expectations of Congress. This is in spite of the fact that its overall objectives have great public support. One very serious problem, unquestionably, is the vast amount of red tape and delay which surrounds and stifles the program.

The Wright Amendment, approved by the House of Representatives, embodies a reasonable and desirable solution to the Section 404 problem. It defines navigable waters to include the associated wetlands, and provides authority to the States to develop and administer programs in conformance with the intent of this Section. We strongly support this approach and urge that the Senate concur.

Respectfully submitted.

DANIEL J. HANSON, Sr., *Executive Vice President.*

ARKANSAS FORESTRY ASSOCIATION,
Little Rock, Ark., July 15, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: The Arkansas Forestry Association requests that this letter be entered into the record of the public hearings scheduled on July 27 and 28, 1976, before the Senate Public Works Committee regarding Amendments to Section 404 of P.L. 92–500.

The Arkansas Forestry Association, a private, non-profit organization composed of 600 members representing forest industries, private forest landowners, logging contractors and other individuals interested in the forests and the practice of forestry in Arkansas, believes that it would be to the detriment of good forestry in this State to implement Phases II and III of the Corps of Engineers regulations regarding the disposal of dredge and fill material into waters of the United States.

Therefore, we as a group support the Amendment to H.R. 9560 (S. 2710 as amended by the House) offered by Rep. Jim Wright of Texas, which more adequately defines "navigable waters", allows the states some discretion in dealing with the regulation of dredge and fill materials in additional waters, authorizes general permits with exemptions for normal farming and forestry operations, exempts federally financed projects with approved impact statements, and allows delegation of permitting authority to the states under special circumstances.

We strongly urge the adoption of this amendment and hope that you and the members of your committee will lend it your full support.

Sincerely,

WM. F. CHESTNUTT, *Executive Director.*

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA,
Washington, D.C., July 16, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Washington, D.C.

DEAR CHAIRMAN RANDOLPH: The Associated General Contractors of America respectfully submits the enclosed statement for the record in connection with your Committee's hearings on July 27, 28 on the interpretation and implementation of Section 404 of the Federal Water Pollution Control Act.

Sincerely,

J. M. SPROUSE, *Executive Vice President.*

STATEMENT OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA TO THE SENATE COMMITTEE ON PUBLIC WORKS

The Associated General Contractors of America, the nation's leading spokesman for the contract construction industry, is a national trade association representing approximately 8,400 construction firms.

Our statement will be brief; all pertinent arguments, all necessary facts, concerning the grave flaws in the judicially mandated definition of "navigable waters" in Section 404 have already been well voiced, and consistently so, since that March 1975 district court decision. This Committee is well versed in the arguments and the facts, and this statement will not belabor those points or attempt to overlap that knowledge.

Our interest is a simple one, and admittedly a self-interest one—we are a construction association and the judicially mandated expansion of permit authority will, at the very least, delay construction activity. However, our self-interest is also in the public interest. We believe that the nation can ill afford delays, at best, and deferrals, at worst, of vitally needed flood control works, navigation projects, soil conservation projects, waste treatment facilities, highway construction; in fact, almost all construction, and its commensurate employment, done near virtually every natural and artificial body of water and wetland in the United States. Yet, this is precisely what will happen, in fact which has already begun to happen, because of the Federal permit-writing bureaucracy mandated by the court order expanding the definition of "navigable waters."

It does not take an expert to realize that the court ordered definition has, and will continue to have, serious economic and social implications. We do not believe that questions as important and as basic to our liberties as intrusion into the lives and activities of private citizens, and Federal control of state and local land use should be allowed to be decided in the name of water quality only. Neither courts nor litigants should be called upon to interpret, or misinterpret, the intent of Congress on an issue which has such potentially devastating economic and social implications; nor, should tacit approval of Congress be allowed to be inferred on such important issues.

The Associated General Contractors strongly supports a return to the traditional definition of "navigable waters" in Section 404, amended to provide, if deemed necessary, for Federal or state control of dredge or fill activities in the wetlands adjacent to such waters. If there is then, after full and expert analysis of the coverage of that definition, any genuine concern that the protection afforded by the definition is insufficient, it would be a relatively easy matter to prepare specific amendatory language without extending the permit authority needlessly. In this way Congress can address the problem directly and specifically, provide for equitable considerations, and thus plan to achieve the priority objectives of water quality without compromising social and economic goals.

CAROLINAS BRANCH,
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.,
Charlotte, N.C., July 26, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Washington, D.C.

DEAR CHAIRMAN RANDOLPH: The Carolinas Branch, Associated General Contractors of America, Inc. respectfully submits the enclosed statement, for the record of the hearings of your Committee, on July 27, 28, 1976, regarding the provisions of Section 404, P.L. 92-500, The Federal Water Pollution Control Act Amendments of 1972.

Sincerely,

HENRY J. PIERCE, *Executive Vice President.*

Enclosure.

STATEMENT OF THE CAROLINAS BRANCH, ASSOCIATED GENERAL CONTRACTORS OF AMERICA TO THE SENATE PUBLIC WORKS COMMITTEE

The Carolinas Branch, Associated General Contractors of America has a membership of over 2,500 firms engaged in the construction industry in North and South Carolina.

In the interests of the construction industry and as gravely concerned citizens, we urge that you support amendments to P.L. 92-500 which will restore the traditional definition "Navigable waters" in Section 404.

We seriously doubt that the average citizen is aware that Federal regulations already exist which will require, by July 1, 1977 (Phase 3), a Federal permit for any excavation or filling, which might affect the water quality of any stream with an average flow of 5 cubic feet per second or any pond of 5 acres or more.

As these regulations are progressively implemented, the individual citizen will see essential public and private construction projects, of all types, stopped or delayed, even projects in his own backyard. He surely will become aware of the increased costs to him and of the Federal intrusion on his long-cherished private rights.

Further, he will learn that he is supporting, by taxes, the operations of two Federal agencies in this process: (1) the Corps of Engineers, which issues the permit and (2) the U.S. Environmental Protection Agency (EPA), which reviews the Corps' permit and which has overriding authority.

As the impact on individual citizens accumulates, public reaction is bound to be severe and be heard in the Congress.

Further, there are a number of questions which need serious consideration:

1. Given the severity of the regulations and EPA's zeal in implementing them, how many additional permits will be required annually?
2. If the regulations are not, or cannot be, fully implemented, how many new court cases will be generated?
3. Will the Congress provide the additional funds and authorize the additional personnel needed by the Corps and EPA to implement these regulations? Alternatively can these agencies afford to divert available resources from other essential tasks?

In our judgment the Section 404 program as now being implemented is impractical and virtually impossible to implement. We believe that only the Congress can correct the situation.

We maintain that state and local authorities are seriously concerned about their local waters and wetlands, and are capable of protecting them without costly Federal interference.

Lastly, we seriously question whether the Section 404 program as now being implemented reflects the real intent of the Congress and the public. The stringent Federal requirements were generated and promoted by EPA, based on a decision of a single U.S. District Court. This decision ruled in favor of the views of zealous environmentalist groups, which frankly profess little interest in the economic and social impacts of environmental measures.

FLORIDA AUDUBON SOCIETY,
July 19, 1976.

Senator HOWARD H. BAKER, Jr.,
Public Works Committee, Washington, D.C.

DEAR SENATOR BAKER: The Florida Audubon Society is an organization of 35,000 members in the state of Florida. We are vitally concerned about the protection of our state's water resources and wetlands, which are important both to the natural environment and our state's tourist industry and recreation oriented economy. We are writing to urge you to stand firm against proposals to weaken the provisions of Section 404 of the Federal Water Quality Act amendments of 1972.

The "Wright Amendment," included by the U.S. House of Representatives in H.R. 9560 (S. 2710) and its predecessor, the "Breaux Amendment," inflict grievous damage not only on the ability of the Corps of Engineers to prevent the destruction of wetlands through the placement of dredged spoil, but also on some of the most basic principles of the Federal Water Pollution Control Program.

From the outset, one of the most vital underpinnings of Public Law 92-500 has been the principle of controlling pollution wherever it occurs at the source. H.R. 9560 (S. 2710) as passed by the House with the inclusion of the "Wright Amendment" would change this approach radically by directing the Federal Water Pollution Control Program toward only those bodies of water utilized for commercial navigation. This sharp change in direction would almost certainly prevent the achievement of protection for "the chemical, physical, and biological integrity of our nation's waters," which is in fact the Federal Water Pollution Control Act's most basic purpose.

H.R. 9560 (S. 2710) as passed has the effect of declaring the majority of America's lakes, streams, and rivers off limits to federal protection without even establishing a mechanism of encouragement to the states to facilitate the protection of these resources.

While the "Wright Amendment" appears on the surface to protect wetlands adjacent to navigable waters, the manner in which the provision was included in H.R. 9560 (S. 2710) virtually erased any real advantage over the "Breaux Amendment" originally adopted by the House Public Works Committee. A review of the Congressional Record will reveal that the Wright Amendment incorporates legislative intent that waters utilized for recreational navigation *not* be considered navigable waters for the purposes of the Act. Further, while the language of the Wright Amendment appears on its face to only exempt *normal* farming and silvicultural operations from permit requirements (such as plowing, planting, terracing, cultivating, seeding and harvesting), the Congressional Record will reveal a vastly broader legislative intent which would allow the construction of dikes, canals, drainage of wetlands or filling of wetlands in the name of agriculture or silviculture with no permit requirement whatsoever. The inequity in this situation should be obvious—agricultural interest would be allowed to fill wetlands without permits, while other landowners desiring to use etlands for purposes not related to agriculture would be required to obtain permits for their projects. We strongly fear that this kind of arbitrary inequity would quickly lead to an invalidation of the 404 permit program by the courts.

In conclusion, we strongly urge you to work for the protection of Section 404. The experience of the states of Florida and California (which have expressed vigorous official support for the maintenance of a strong 404 program) should be revealing with regard to the unfounded fears about the program expressed unknowledgably by many. Because of their extremely long coastlines, numerous rivers and lakes, and vast areas of wetlands, Florida and California have been exposed to the 404 program to a degree much greater than most other states. The fact that these states support Section 404 fully in its present form should be a convincing argument that the program is indeed reasonable and workable.

Should it be the belief of the Senate Public Works Committee that some clarification of the intent and objectives of Section 404 is necessary in response to the concerns of the agriculture and forestry industries, we urge you to adopt the provisions suggested by Senator Gary Hart of Colorado. Senator Hart, as we are sure you are aware, has introduced legislation (S. 3663) which would have the effect of providing assurance that normal farming and silvicultural operations (and normal operations only) are exempt from permit requirements under Section 404.

Senator Hart's amendatory language would also exempt normal maintenance work on currently serviceable structures, such as dams, levees, groins, bridge approaches, etc., from permit requirements and authorize the Corps of Engineers to issue "general permits" for work consistent with guidelines established pursuant to Section 404 (B).

We trust that you will carefully weight these considerations in determining your position on this urgently important matter.

Sincerely,

CHARLES LEE, *Vice President, Conservation.*

FORT WORTH AUDUBON SOCIETY, INC.,
Fort Worth, Tex., July 19, 1976.

HON. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
Washington, D.C.

DEAR MR. RANDOLPH: This letter is "for the record of hearing of July 27–28, 1976, on Section 404 of the Clean Water Act."

There are four main points that our organization would like recorded in these hearings into Section 404.

1. It is premature to amend Section 404; no hearings should be held nor amendments considered until after the full three-phase program has gone into effect.

2. The proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment because it would address those issues mistakenly raised by those who oppose further regulation under the section; it would write into law the exemptions and general permit program already set for Phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year.

3. Wetland areas are valuable for their capabilities to break down and remove quantities of pollutants such as nutrients and organic wastes from their tributaries, to store flood waters and to feed and nurture the lower end of the food chain.

4. The House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's narrowed definition of "navigable waters."

We certainly hope that our views on this most important subject will be recorded and that the Committee will take action to uphold Section 404 as it is now constituted. Thank you for your attention to this matter.

Sincerely,

LYNDA A. GEARHEART, *Conservation Chairman.*

MRS. NORMAN BAETJER, Jr.,
Garrison, Md., July 21, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: I would like to express my support of the Hart amendment to the Clean Water Act, presently numbered S. 2710. I strongly urge that the private witnesses to be heard, be increased so that those for and against this amendment will be equal. Of the seven presently to testify, only two are in favor of the amendment while five are against; this is hardly democracy.

I would appreciate that this letter be included in the record of the hearings to take place July 27 and July 28, 1976, in regard to the Clean Water Act.

Sincerely yours,

Mrs. H. NORMAN BAETJER, Jr.

WASHINGTON, D.C., *July 20, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: I was shocked to hear of the efforts currently underway to weaken the Clean Water Act, particularly efforts to exclude most wetlands from protection under Section 404. It is premature to amend Section 404 when the full three-phase program has not even gone into effect. The proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment in that it would address those issues mistakenly raised by those who oppose further regulation under the section; it would write into law the exemptions and general permit program already set in Phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year.

Having served two years in Nepal as a fisheries biologist for Peace Corps, I am acutely aware of the importance of the wetlands both as a natural water purifier and as a key element in the food chain which provides fish for sport and industry. Of importance to all Americans is that the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking waters that do not happen to fall within the House's narrowed definition of navigable waters.

It is time to stop the unbridled exploitation of our coastal regions by developers and entrepreneurs who would see our nation's ruin for their personal gain. We must balance the profit of such development with the catastrophic price that future generations will have to pay.

Please consider this note as testimony to be included for the record of the hearing of July 27–28, 1976, on Section 404 of the Clean Water Act and please balance the witnesses scheduled to appear at these hearings with more advocates of the Section 404 provisions.

Sincerely yours,

DAVID BODYCOMBE.

BRAZOS RIVER AUTHORITY,
Waco, Tex., July 23, 1976.

Hon. EDMUND S. MUSKIE,
Chairman, Subcommittee on Environmental Pollution, Committee on Public Works,
145 Russell Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: It is respectfully requested that this letter, expressing the Brazos River Authority's support of the "Wright amendment" to Section

404 of P.L. 92-500, be given consideration by your Subcommittee in connection with its hearings on July 27-28, 1976.

The Brazos River Authority is a governmental agency of the State of Texas charged with responsibility for conservation and development of the water resources of the Brazos River Basin (an area of 42,000 square miles) and putting these water resources to beneficial use in the best interest of the people of Texas. In carrying out its responsibilities, the Authority is self-supporting, utilizing operating revenues to pay the costs of its projects and activities. The only tax money available to the Authority is that which may be provided occasionally under grants for specific studies or projects.

The Brazos River Authority, since its creation by the State Legislature in 1929, has made great progress in accomplishing its statutory mission. The Authority now has in operation a basin-wide system of water supply lakes, including the conservation storage space in five Corps of Engineers multi-purpose projects on tributaries of the Brazos River and two lakes of its own on the main stem of the Brazos River. Essentially all of the long-range dependable water supply yield of the existing projects in the basin-wide water supply system is committed under firm contracts to meeting existing and projected water needs, and additional needs developing in the future must be met from projects not yet in operation. These include three multipurpose projects now under construction by the Corps of Engineers and one water conservation and water supply project under construction by the Authority.

The project now under construction by the Authority is Lake Limestone, which was placed under construction a year ago in the upper Navasota River watershed 125 river-miles upstream of the Navasota's confluence with the Brazos. This project is urgently needed to provide dependable water supplies for industrial, municipal and agricultural use. The most urgent immediate need for water is to permit the utilization of extensive lignite deposits in the upper Navasota watershed as a heretofore unexploited source of fuel to help alleviate the country's pressing energy shortage.

The Brazos River Authority is experiencing serious problems in completing construction of this urgently-needed water resource project as a result of the court-ordered interpretation of Section 404 of PL 92-500.

Prior to being placed under construction in July 1975, Lake Limestone had received all the State and Federal licenses, permits and approvals at that time required. However, on July 25, 1975, after Lake Limestone was placed under construction, the Corps of Engineers published its new regulations in response to the Federal Court order expanding the Corps' permit program for discharge of dredged and fill material in navigable waters under Section 404, so that this program was extended to cover virtually every stream, pond and lake in the country. Under these new regulations it was determined that a Section 404 permit would be required for Lake Limestone as of July 1, 1976, the date that the regulations would become applicable to the Navasota River under Phase II of the expansion of the permit program. The Authority submitted its application for a permit in October 1975, and the Corps or Engineers published and distributed public notices of our application in December 1975. In March 1976, the U.S. Fish and Wildlife Service recommended that the permit be denied unless the Authority buys 15,800 additional acres of privately-owned farm and ranch land for use as wildlife management areas to mitigate the loss of wildlife habitat on the 15,000 acres of privately-owned farm and ranch land that will be occupied by the lake. Even if it could be demonstrated to be in the best public interest to take an additional 15,800 acres of farm and ranch land out of private ownership and out of production for use as wildlife management areas, it would be impossible for the Authority to comply with such a requirement, because it has no source of funds to provide the $8 to $12 million that would be required, and it does not have the legal right or power necessary to buy land for such purposes. The Authority explained this to representatives of the U.S. Fish and Wildlife Service, but they replied that their job is to make recommendations based solely on fish and wildlife considerations without regard for other factors; they said it is up to the regulating agency (in this case the Corps of Engineers) to consider all the factors involved and arrive at a decision. Under an agreement between the Department of the Army and the Department of the Interior, where recommendations made by an agency of the Interior Department cannot be accepted by the applicant for a Section 404 permit, the matter must be forwarded to Washington for resolution. Since the Authority's application for a Section 404 permit falls in this category, it cannot be determined at this time when, if ever, a Section 404 permit may be issued for Lake Limestone.

This is a very brief and simplified summary of the experience of one State agency in trying to obtain a Federal Section 404 permit as of July 1, 1976, for a project that has been under construction for a year after having received all the State and Federal government approvals required. The Brazos River Authority now faces the possibility that construction of this project, which is urgently needed as a source of water supply to permit use of lignite deposits to help alleviate the country's energy shortage, may be delayed or interrupted or completely halted under provisions of a Federal Water Pollution Control Act for reasons that have nothing to do with water pollution control.

This is just one example of the type of problems that can be encountered under the massive expansion of Federal bureaucratic control that is just beginning to be implemented under the court-ordered interpretation of Section 404 of PL 92-500.

The Wright amendment would eliminate such problems by restoring the original intent of Congress with regard to Section 404. It would go further with respect to wetlands, because it would make the provisions of Section 404 specifically applicable to wetlands adjacent to navigable waters.

From the point of view of those responsible for trying to meet water needs at the State and local level, it is critically important that reasonable limits be placed on the extent to which Section 404 may be used by Federal officials to impede or block the efforts of State and local governments to go forward ith urgently-needed water resource projects.

The Brazos River Authority respectfully requests that the Subcommittee on Environmental Pollution of the Committee on Public Works give favorable consideration to the Wright amendment so that it may be presented for consideration by the full Senate without delay.

Respectfully submitted.

WALTER J. WELLS, *General Manager.*

CALCASIEU ROD AND GUN CLUB,
Lake Charles, La., July 21, 1976.

Re the record of the hearing of July 27-28, 1976 on section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Washington, D.C.

DEAR SENATOR RANDOLPH: Our membership consists of approximately 500 area sportsmen. Our coastal area of Southwest Louisiana is one of the most productive areas found in our nation today, containing a large percentage of the total wetland acreage in the country. Unfortunately, we have no state or local laws to protect these wetlands in existence today. To protect these wetlands, we must rely on federal law and the federal agencies.

The Public Works Committee is considering this day the Wright-Breaux Amendment to Section 404. We have followed this Amendment from its inception by our Representative, Congressman Breaux. Unfortunately, we completely disagree with his position. No opportunity was presented for rational discourse on the House side. We are appreciative for the hearing afforded this day, but feel it is premature as no one can really tell the full affect of the Corps regulations until they are fully implemented.

In addition, planning under the Coastal Zone Management Act in Louisiana is in its infancy. If no federal supervision is maintained, the entire ball could be dropped and no protection for our wetlands could be the outcome. Until a comprehensive coastal resources management program is adopted by the Louisiana State Legislature, we feel that consideration of changes in Section 404 is premature.

We disagree with the limited definition of "navigable waters" and "adjacent wetlands" in the Wright-Breaux Amendment. We also feel strongly that more stringent guidelines should be established by Congress if they are to allow the turning over of the permitting process to the State Government. In the case of Louisiana, it might well be the case of allowing the fox to guard the henhouse.

If a choice must be made at this advance stage, we urge consideration of Senator Hart's Amendments to the Section which basically coincide with the Cleveland-Harsha Amendment proposed on the House side.

Thank you for this opportunity to comment.

Sincerely yours,

LEONARD K. KNAPP, Jr., *President.*

CALIFORNIA ALPINE CLUB,
San Francisco, Calif., July 19, 1976.

Senator JENNINGS RANDOLPH,
Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: The members of the California Alpine Club, an organization of 800 members residing in the Bay Area, have consistently gone on record in support of a strong Federal Water Pollution Control Act and, in particular, Section "404" of the 1972 Act. We express our concern that the proposed amendments to the 1972 Act will prevent any Federal regulation of polluting discharges of dredged or fill material on about 80% of the nation's ecologically important wetlands. We strongly believe that the treasures of our coastal lands be protected, for these lands are places where nature cleanses water and air, where food is furnished for countless migratory birds and for many marine animals. The California Alpine Club respectfully requests that these amendments be defeated and that this letter become part of the Senatorial Public Works Committee record.

Very truly yours,

HENRY HILLMAN, *Conservation Chairman.*

CALIFORNIA COMMITTEE OF TWO MILLION,
San Francisco, Calif., July 15, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Washington, D.C.

SIR: This organization on several occasions over the past few weeks has expressed its strong objection to the so-called Wright-Breaux amendment to S.2710 the public works bill the Senate now has under consideration.

Our objection is two-fold and we wish herewith to reiterate our opinion for your benefit.

First we object to any amendment of Section 404 of the FWPCA of 1972 without full and complete public hearings. We understand your committee will hear testimony from selected witnesses on July 27 and 28. Any allegation that the foregoing setup constitutes a public hearing will be promptly labeled by us as a sham and a deceit.

Secondly, we object to the language of the amendment as proposed, for it will clearly weaken an important element of one of this nation's foremost habitat protection laws. Our country's wetlands would suffer severely if Wright-Breaux is accepted; therefore it should be stricken from S. 2710.

We ask that this letter be made part of the record of your proceedings on July 27 and 28.

Sincerely,

RICHARD H. MAY, *Chairman.*

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217 EDGEWORTH LANE,
Sewickley, Pa., July 25, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee,
Washington, D.C.

DEAR SIR: Please support the Hart amendment to the Clear Water Act now S. 2710. It is imperative that we save as many of our wetlands as possible since they are fast vanishing through housing developments and other filling operations. They are vital to our food chains.

Please use this statement as testimony at the hearings next week on Section 404 of the Clear Water Act.

Also please get all the testimony you can from interested groups.

Most sincerely,

ELIZABETH L. CHILDS,
National Affairs and Legislative Committee,
The Garden Club of America.

CITIZENS COMMITTEE ON NATURAL RESOURCES,
Washington, D.C., July 28, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: The Citizens Committee on Natural Resources urges you and your Committee to act in defense of Section 404 of the Federal Water Pollution Control Act Amendments of 1972. We are deeply concerned with the action of the House in adopting the ill-considered Wright Amendment, which emasculates a major section of the program and leaves a majority of the Nation's wetlands unprotected. We believe that it is now up to the Senate to preserve this key element of the landmark 1972 legislation.

In passing Public Law 92-500 in 1972, Congress recognized the need to protect all the waters of the United States from pollution. Section 404 not only regulates two key classes of pollutants, it also helps preserve a natural purification system which can only be partially duplicated with expensive technology. As you know, wetlands are essential to the life cycles of numerious fish, birds, and mammals, with important economic and asthetic values.

The present controversy over Section 404 has been fanned by several unfortunate factors. First, there is considerable doubt about the court interpretation of the law under which the present Corps program is being implemented. Second, a good deal of hysteria has been generated—particularly in the farm community—by a misleading attack on the program conducted by several major agricultural organizations.

It is possible that Congress should reconsider the manner in which spoil and fill are to be regulated under the law. While we believe that the Corps has acted responsibly in implementing this program, Congress may wish some of the jurisdiction to be transferred elsewhere. However, this would raise complex points of law which there is little time to consider adequately in this Congress, particularly under the gun of the Wright Amendment. Indeed, the serious difficulties which have been discovered in the Wright approach demonstrate the need for careful and full consideration of all the issues involved.

While we would be reluctant to see any change in the present implementation of Section 404, it is possible that the most satisfactory approach to compromise at this time would be a delay in the beginning of Phase II of the program untill Congress has had an adequate opportunity for full review of the law. Such a review is scheduled for next year.

Another approach which we would endorse is that embodied by S. 3663, introduced by Senator Hart of Colorado. This bill essentially codifies the Corps' announced intention of excluding ordinary farming and silvicultural practices from regulation, and of issuing general permits to cover numerous other activities. However, we cannot support at this time any basic changes in the structure of the program. We believe that Congress must insure that all water resources remain protected under the law.

We respectfully request that this letter be made part of the record of your hearings on this legislation. Thank you for your consideration of these views.

Very truly yours,

JOHN M. BURDICK, *Executive Director.*

CITIZENS COMMITTEE ON NATURAL RESOURCES,
Washington, D.C., July 19, 1976.

The PRESIDENT,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: On 3 June 1976, the House of Representatives passed by voice vote and sent to the Senate the Wright Amendment to Section 404 of the Federal Water Pollution Control Act (Public Law 92-500). This action, if confirmed by the Senate and the President, would strip federal protection from millions of acres of nontidal wetlands of vital importance to our economy as well as to the cultural, recreational, and aesthetic enjoyment of the American people.

We consider the House action, taken in response to ill-founded fears, to be hasty and ill-advised. No consideration was given to environmental or economic impacts, nor was any public hearings conducted on this or the earlier and similar Breaux Amendment. Scientific and conservation interests and the general public were given no scheduled opportunity to comment.

The Wright Amendment is sweeping and complex in its implications. It contains many ramifications bearing on the future of the Nation's critical aquatic areas and the related natural resources and public values dependent upon them. By narrowly redefining navigable waters, it would exempt virtually all but salt and brackish water marshes from the dredge-and-fill permit system now administered by the Corps of Engineers and the Environmental Protection Agency. We are deeply concerned that the Wright Amendment, if enacted, will undermine important interrelated laws and regulations, especially the long-standing Refuse Act of 1899. The important and priceless aquatic areas of our country require continuing protection.

Wetlands in their natural state have many irreplaceable public values that should be maintained. Because of their water-holding capacities, they have been proven to act as storage basins that help reduce floods that might otherwise threaten human life and property downstream. By doing so, they curtail the need for flood control dams and levees and thereby help reduce public costs and burdens on taxpayers, including payments made for emergency relief. Scientists have estimated that a 6-inch rise in water level over a 10-acre wetland accounts for the storage and gradual release of more than 1.5 million gallons of water.

Wetlands play a significant role in ground-water recharge, assuring reliable and continuous supplies of water for many municipal, industrial, and agricultural complexes whose growth, and even existence, depends upon them.

Of equal importance is the value of wetlands in serving as water-filtration systems that remove large quantities of silt and water-borne pollutants from streams vital to municipalities, industry, and agriculture. By reducing the nutrient load in flowing water, they help minimize algal blooms and rank aquatic plant growth that lower the effectiveness and shorten the lives of downstream reservoirs. Most of these reservoirs were bulit and are maintained with taxpayers' funds. Intensive study of a stream in Georgia by the Federal Water Pollution Control Administration showed that a heavily contaminated stream purified itself to highly potable standards after passing through less than ten miles of upland swamp. The cost of artificially removing these contaminants would have involved substantial capital investments by industry and government.

Of equal importance to the national economy is the contribution of wetlands to the well-being of the nation's hard-pressed fishing industry. The importance of small headwater streams, which would be classified as non-navigable under the Wright Amendment, to the maintenance of anadromous fishes, such as salmon, steelhead trout, shad, and alewives, which depend upon such streams for spawning, is obvious. What is less widely recognized is the value of interior wetlands in nourishing and replenishing coastal and lacustrine estuaries into which they feed. A high percentage of all shell and finfish of commercial and sport value spend all or part of their lives in such areas and need them to survive. As with municipal, industrial, and agricultural water supplies, upland wetlands eliminate the influx of contaminants that frequently cause the closure of fisheries of great importance to local industry. The current Kepone disaster involving the James River in Virginia and Chesapeake Bay has serious implications for local watermen, and might not have occurred if the contributing factory had been located farther upstream and the river's waters subjected to the cleansing action of riparian wetlands.

Similarly, by regulating flows of feeder streams, upstream wetlands help maintain the precise degrees of salinity required by oysters, shrimp, clams, and other commerically important estuarine species.

These important functions assume greater importance in the light of the recently adopted 200-mile fishery jurisdiction. That authority, as you know, calls for improving management of the United States', as well as the rest of the world's, fishery resources. The Wright Amendment threatens to permit destruction of the aquatic habitats required to assure perpetuation of those resources. Permit that to happen and the economy will be shortchanged forever.

These are only a few of the significant values, important both economically and ecologically, that are threatened by adoption of the Wright Amendment.

In view of these facts, we urge you and the Executive Branch to authorize the Corps of Engineers and the Environmental Protection Agency to proceed with implementing the guidelines for handling dredged and fill materials under Phase II of the Corps permit program under Section 404 of the Water Pollution Control Act of 1972 as published in the Federal Register of 25 July 1975.

We believe that the Environmental Protection Agency and the Corps, and possibly Congress as well, should hold public hearings for the purpose of reviewing the experience accumulated since 25 July 1975 in handling permits under the 404 program. These hearings should identify if and how the program and procedures should be refined. The results of the hearing or hearings would be used to mold a well-designed program that is acceptable and in the long-term public interest for maintaining the chemical, physical, and biological integrity of the nation's waters. This is the follow-up procedure established previously and announced in the Federal Register on 25 July 1975.

It is not our position to support a program to curtail all development of aquatic and associated areas. Rather, we seek practical guidelines that insure orderly planning and assure maintenance of important aquatic areas as part of a total development plan.

We respectfully appeal to your strong belief in fairness in government, enlist your support in helping assure public participation in the decision-making process, and urge that the powers of your high office be used to forge an effective joint federal-state program to maintain, not degrade and destroy, the important water and other aquatic resources of our nation.

Respectfully yours,

American Fisheries Society, Carl R. Sullivan, Executive Director; American Littoral Society, John Clark, Washington Director; J. N. "Ding" Darling Foundation, Sherry R. Fisher, Chairman; International Association of Fish and Wildlife Agencies, John E. Phelps, President; National Audubon Society, Joseph P. Linduska, Vice President; North American Wildlife Foundation, Laurence R. Jahn, Secretary; The Rachel Carson Trust, Shirley A Briggs, Executive Director; Sport Fishing Institute, Richard H. Stroud, Executive Vice President; The Wildlife Society, Fred G. Evenden, Executive Director; World Wildlife Fund, Godfrey A. Rockefeller, Executive Director; American Institute of Biological Sciences, Richard Trumbull, Executive Director; Citizens Committee on Natural Resources, John Burdick, Executive Director; Friends of the Earth, David R. Brower, President; Izaak Walton League of America, Jack Lorenz, Executive Director; National Coalition for Marine Conservation, Frank E. Carlton; Natural Resources Defense Council, Environmental Lobby, Ronald B. Outen; Sierra Club, Rhea Cohen, Washington Representative; The Wilderness Society, George D. Davis, Executive Director; and Wildlife Management Institute, Daniel A. Poole, President.

3201 BEECH STREET, NW.,
Washington, D.C., July 28, 1976.

PUBLIC WORKS COMMITTEE,
U.S. Senate,
Washington, D.C.

GENTLEMEN: We strongly urge that you do not recommend that any changes be made in Section 404 of the Federal Water Pollution Control Act. This legislation is the only instrument we have to ensure that the needless destruction of our wetlands and waterways is stopped. Since its passage, it has served the public interest well. Surely the same urgent reasons that caused us to create this section are still valid. Wetlands are now no less vital. We know that the developers, the roadbuilders, the miners, and a host of other special interests never wanted this legislation and are putting pressure on you now to abolish it. Which one of them understands the importance of wetlands and waterways to our lives and theirs? Which one of them cares? We urge you to be guided by those who understand these complex living systems and whose only interest is in preserving those systems on which all life depends. Please do not take Section 404 from us or weaken it in any way.

Sincerely yours,

MILDRED AND JAMES CLARK.

COALITION FOR NATURAL STREAM VALLEYS, INC.,
July 24, 1976.

Re the record of the hearing of July 27–28, 1976, on section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: The Coalition for Natural Stream Valleys, Inc. urges you to give Section 404 of the Federal Water Pollution Control Act a reasonable trial period before making major amendments. The value of our delicate and irreplaceable wetlands, which these regulations were designed to protect, is well-documented.

One might argue that the states should handle the responsibility of wetland protection, but in fact many do not now have regulations. Others that do often are rendered ineffective by local political pressure applied to administrators by would-be exploiters. Even in some major highway construction, federal scrutiny under the National Environmental Policy Act is eliminated by financing environmentally destructive projects with state funds only. A requirement of federal review of activity in the wetlands would ensure an objective evaluation. Such an evaluation does not seem unreasonable when one considers that a productive stream or wetland, thousands of years in the making, can be destroyed in a day.

In Delaware we are currently experiencing the maneuvering to by-pass the environmental accounting of a highway bridge, to be built with state funds only, over the East Branch of the Christina River, a primary tributary. Political pressures to expedite project construction have resulted in hasty permit approvals at the local and state levels for a bridge design which would require channelization of the stream and thousands of cubic yards of fill on the floodplain. The consideration of an alternative viaduct design, which would eliminate both of these environmental shortcomings, by an uninvolved agency is desirable. Section 404 provides for this process; the Wright-Breaux amendment would exclude it.

Total review of potential environmentally destructive projects in our Nation's wetlands is absolutely essential in a democratic process, therefore the Coalition for Natural Stream Valleys, Inc. urges the Senate not to adopt the Wright-Breaux amendment to Section 404.

Respectfully,

DOROTHY P. MILLER,
Corresponding Secretary.

COLORADO PUBLIC INTEREST RESEARCH GROUP,
Fort Collins, Colo., July 20, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee
Hon. EDMUND MUSKIE,
Chairman, Environmental Pollution Subcommittee

DEAR CHAIRMAN RANDOLPH AND SUBCOMMITTEE CHAIRMAN MUSKIE: The House of Representatives has weakened the Clean Water Act with undue haste. We believe that this act is vital to the well-being of this nation, and feel that it is premature to amend the very substance of this act. At this point all three phases of the original act have not gone into effect and therefore, it is difficult to correctly determine just what revisions, if any, are necessary. All phases of this act should be allowed to go into effect and if it is found that revisions are necessary, they should be made only after full public hearings before both chambers of Congress.

We prefer the Hart-Cleveland amendment to the Wright-Breaux amendment. The Hart-Cleveland amendment recognizes that our waterways and wetlands are part of a complex, interwoven system. It would be foolhardy to permit Section 404 to apply only to navigable waterways and their adjacent wetlands, as the Wright-Breaux amendment does. To place only navigable waterways and their adjacent wetlands under 404 would leave unprotected many bodies of water which: supply drinking water, are used in commercial fishing, and are used by interstate travelers for recreation purposes. It would leave unprotected many bodies of water which are used for industrial purposes by industries engaging in interstate commerce. This narrow definition would endanger waterfowl which use our wetlands, many of which would go unprotected. It would open the door to the destruction of many wetlands that actually clean up our polluted water.

We feel that it is vitally important that Section 404 apply to the total "waters of the United States" and not just navigable waterways and their adjacent wetlands.

Sincerely,

KRIS NEWCOM,
Research Associate,
BILL SPERRY,
Board of Directors.

STATEMENT OF THE COMMITTEE TO PRESERVE ASSATEAGUE ISLAND, PREPARED BY JUDITH COLT JOHNSON, CHAIRMAN

The Committee to Preserve Assateague Island represents approximately 1,400 individuals and organizations spread throughout all sections of Maryland, Virginia and Delaware, plus others from states across the country. We are a non-profit organization and our object is to "protect the ecological health of Assateague Island and all other endangered areas where land meets water along the Atlantic Coast of the United States, so that their natural wonders and recreational advantages may be enjoyed now and by future generations." We were formed in 1970 and our area of interest has grown with our size due to other groups and individuals requesting our aid.

Recognizing the exceptional value of these critical areas, we feel it is essential that strong protection be given our salt and fresh water marshes, for the contribution they make in flood control, providing wildlife habitat and breeding grounds, as nature's septic tank, in their contribution to the food chain, and the pure aesthetic pleasure they bring to countless people. Hunting, trapping and fishing (commercial and recreational) are very important industries in our economic system. Their success is dependent on protecting our marshes, and the quality of water, which, in turn, determines the amount and type of aquatic grasses which are necessary for a continuance of shellfish, finfish and waterfowl. An example of this is the documented evidence we have that swans are deserting the Chesapeake Bay because of deterioration of the supply of aquatic vegetation. They are going to the fields in Maryland and the population at Lake Mattamuskeet in North Carolina, where the aquatic vegetation has increased, has grown from 8,000 in 1972 to 22,000 in December 1975. In migration they are always observed to take aquatic vegetation in preference to feeding in fields where there is a choice.

Maryland has a wetlands law, and it is a pretty good one. However it only gives adequate control over state-owned wetlands, which lie below the mean low water line. It does not protect fresh water wetlands or prevent building on flood plains. While on the whole Maryland has a fairly good record, we also run into the problem where the state has a documented history of political favoritism, and the administration of the wetlands law is no exception to this. Staff members of the Department of Natural Resources have frankly told me that sometimes it is politically expedient for them to agree to permits which they know are bad, but they count on the U.S. Fish and Wildlife Service calling for denial and taking the blame for the upset applicant. The Seafarer's Union and school at St. George's Creek in St. Mary's County, the sewage treatment plant on the flood plain at Mattawoman Creek, Mystic Harbor in Worcester County are a few of the more famous examples, but the list can go on; the state should have denied the permit.

Furthermore, an even more frightening concern in Maryland is that a group of developers and agricultural interests in Dorchester County wish to weaken and amend the Maryland Wetlands Law to exempt agricultural lands and make other exceptions, and a study is being made this summer which could result in serious weakening of the law when the Legislature next meets.

Virginia is supposed to have a fairly good wetlands law, but it has not stopped draining and filling of valuable wetlands and permits for dead-end canals. Other states have weaker laws and some none at all. There is no way we can stop such developments as Mystic Harbor and Captain's Cove, which could kill life in Chincoteague Bay, without the counter balance of the EPA, U.S. Fish and Wildlife Service, National Marine Fisheries Service and the Corps of Engineers. That is a strong statement, but it has been substantiated by such scientists as Dr. L. Eugene Cronin and Dr. Richard Anderson, who have done extensive research in Chincoteague Bay. Virginia has given permits for alterations of wetlands on Chincoteague Island and as a result an area north of the Oyster

Bay community there has had to be closed to shellfishing. Septic tanks on the Island cannot take care of the influx of people in the peak summer months, and samplings of the water around the island show pretty gruesome conditions. Work permitted around Ocean City and Ocean Pines along Assowoman Bay, permits for which were granted by the state, have caused the closing of additional shellfish beds, and the list could go on. The evidence is there. Are we going to continue the desecration of our wetlands and waters so that their productive qualities are gone?

For far too long we have exploited this good land of ours, and if there is to be anything left for the next generation, we must rededicate ourselves in this year of our 200th Anniversary and put the good of our country and the preservation of our irreplaceable natural resources for future generations ahead of the lust for making a quick dollar by exploiting the land. There are too many people occupying the earth to continue the old policies of believing man has the right to do anything he wishes to the land and water. Controls are essential for survival.

We are fast reaching the point of no return, and it alarms us that the Senate Public Works Committee, in whom we place our trust and on whom our future depends—that this responsible committee could consider taking action on S. 2710 by including the controversial Wright-Breaux amendment which would set us back decades. To approve this measure will be robbing Peter to pay Paul, for while it will fatten the coffers of the selfish interests of developers, dredging, and other interests, it will end in forcing a decline in all the industries dependent on what is produced by a healthy marsh, which in turn leads to life in the sea and all that is around us. Where would the farmers be without chicken feed and fertilizers made from products of the sea? Life is interrelated and we must cease from destroying the cradle and web of life.

In many areas the aquifers are being drawn from faster than they are naturally replenished, and this is particularly true of the Delmarva Peninsula. If S. 2710 is adopted as it now stands, there is a real threat of pollutants not only contaminating rivers and bays but entering the underground water system.

In the heat of this election year, we urge you to withstand the temptation of acceeding to the wishes of selfish interests, of listening to the arguments which the State of Maryland will make to have sole control over these areas given to the states. Look toward what is best for the nation and its citizens, and postpone any action for another year. States are too subject to political pressures and we need the balance of other federal agencies, the U.S. Fish and Wildlife Service, the EPA and the National Marine Fisheries. We recognize that modifications may need to be made in the 404 regulations, but they have not been given a sufficiently fair trial to make judgment at this time. It is not fair to your constituents to adopt hasty and ill-conceived amendments in an election year. We urge that action be deferred until a committee of the various agencies, citizens and government members can make an in-depth study of the situation and regulations and return to Congress with recommendations by, say, December 1977.

APPENDIX I

COMMITTEE TO PRESERVE ASSATEAGUE ISLAND,
October 14, 1975.

To: Friends concerned with the coastal area—Letters needed.
From: Judy Johnson.
Subject: Public hearing to be held by Corps of Engineers to consider application by Mystic Harbor Development Company to dredge dead-end canal, construct bulkheads, 2 groins, 4 gazebos, 52 piers, placing dredged material on uplands.
Date: Wednesday, October 22, 1975, in the Stephen Decatur High School Auditorium, 5 miles west of Ocean City, Md., at intersection of routes 50 and 452. Time: 7:30 p.m.

This is the most controversial permit application in the Maryland section of the Sinepuxent-Chincoteague Bay area, and the outcome will have far-reaching effects on the entire bay area. We are fortunate to have Colonel Robert S. McGarry in charge of the Baltimore District of the Corps for he is genuinely concerned over the cumulative effects of dredging, filling and the destruction of our diminishing and invaluable salt marshes. Serious objections to the Mystic Harbor application have been raised by the EPA, National Marine Fisheries, and U.S.

Fish and Wildlife Service on the Mystic Harbor Application. In Virginia, the Norfolk District has been struggling over an even worse situation, that of Captain's Cove development. Other developers are pursuing plans for further encroachments on the wetlands, channelization, vacation homes with parking for boats on water and cars on land.

The coastal bays between the barrier islands and mainland from Cape Charles, Va., to Lewes, Dela., are recognized as exceptionally important for their commercial and recreational catch of shell fish and fin fish, and for providing the nursery grounds which eventually help produce the larger catches found along the coast.

Mystic Harbor plans include a dead-end canal 5,000 feet long, 70 feet wide and 4.5 feet below mean low water. There is very little tidal flushing in the bay, and the canal would be so long that it would become very stagnant in spite of plans to provide mechanical methods of aeration and flushing (purely experimental and untried). It would be subject to storm water run-off, oil from outboards, pesticides, organic material and trash, and any waters from it entering Sinepuxent Bay would be of poor quality, deteriorating more and more over a period of time. Bulkheading on both sides of the canal would interfere with intertidal organisms and the biota.

Among the worst features are the 120 feet groins to be placed where the canal opens into the bay. This would affect the flow of water in and out of the canal and would hasten erosion on the down drift side of the bank. Ninety percent of the wetlands are dominated by salt marsh cord grass (spartina alterniflora) and are of the highest, most productive quality. The area supports highly diverse and productive fish and invertebrate fauna, and the site provides abundant feeding grounds for birds—it is noted for the numerous shore and wading birds, the migrating ducks and other waterfowl, and the many songbirds.

These are among the few remaining pristine wetlands along the coast and are important in the whole food chain—not just the fish we eat but those used in making leather supple, ink, feed for poultry and in fertilizer.

This project is closely related to the proposed Delmarva Intra-coastal Waterway and is indicative of the development pressures the Waterway would bring. The Baltimore and Norfolk Districts of the Corps recognize the unique and irreplaceable value of these Bays, and the charge which has been put on them to protect such resources under the new EPA guidelines and the new 404 section of the F.W.P.C.A. They have engaged the Mitre Corporation to undertake a study of the whole Sinepuxent-Chincoteague Bay Area. One purpose of this hearing is to determine: (1) The amount of concern which the public has in saving these irreplaceable resources; and (2) receiving input into what the study should encompass, what needs protection, what development could take place without harming the resource.

What you can do

(1) Attend the hearing if you can; otherwise write the Corps.

(2) Urge denial of the Mystic Harbor Permit for the canal. An alternative way to accommodate boats would be to build a bridge across a portion of the marsh (not a causeway as originally suggested) to a high hummock of ground on the edge of the bay, where a few piers could be placed.

(3) Express opposition to dredging the bays for an enlarged Waterway or for channels to additional marinas and developments. Existing public boat launching sites should be used.

Brief notes or comprehensive comments sould be sent to:

Colonel Robert S. McGarry, District Engineer,
U.S. Army Corps of Engineers,
P.O. Box 1715,
Baltimore, Md. 21203

The hearing record will remain open for one month following the hearings, or until November 22. Please help on this as it is critical.

You may hear from us again soon as we hope hearings on the Assateague amendments will be held by the House Interior Committee during this session of Congress (they were scheduled for September 19 and then canceled). Also, the Philadelphia office of the Corps reportedly will issue the long-delayed E.I.S. on the Delmarva Waterway (they have been issuing news releases appealing for support from boatowners for the new ports of call they will provide).

76-161—76——42

APPENDIX II

COMMITTEE TO PRESERVE ASSATEAGUE ISLAND,
January 2, 1976.

Re Captain's Cove Development.

Urgent alert to friends of Assateague, Chincoteague National Wildlife Refuge and Chincoteague Bay . . . individuals, scientists, and organizations: Your quick response to this appeal is crucial.

At our request, the Norfolk District of the Corps of Engineers will hold a hearing on the Captain's Cove Development, Greenbackville, Accomack County, Va., (bordering on Worcester County, Md., and Chincoteague Bay).

Date: Wednesday, 7 January 1976, at 7:30 P.M.

Place: Atlantic High School Auditorium, Route 13, south of Oak Hall, Accomack Co., Va. (i.e., south of the intersection where you turn east off of Route 13 to reach Chincoteague Island).

Some highly professional people have agreed to travel to Virginia to testify for us, but we must have the Virginia, Maryland and national conservation organizations speaking up and as many individuals as possible. We really need a good response to this appeal. Make every effort to attend the hearing and testify, please. Otherwise write this developer, by selling lots on filled wetlands, digging canals and doing extensive work prior to securing permits, hopes to force approval of his project, regardless of the consequences.

Copies of the Environmental Impact Statement are available at the Accomack, Pocomoke City and Snow Hill public libraries, USFWS Annapolis office, Norfolk and Baltimore Districts of the Corps, and I have two copies.

DEPARTMENT OF THE ARMY,
NORFOLK DISTRICT, CORPS OF ENGINEERS

NOTICE OF PUBLIC HEARING

The application of First Charter Land Corporation for a Department of the Army permit to authorize certain work in navigable waters (Chincoteague Bay and Swans Gut Creek) at Captain's Cove, Accomack County, Virginia will be the subject of a PUBLIC HEARING TO BE HELD AT ATLANTIC HIGH SCHOOL AUDITORIUM ON U.S. ROUTE 13 SOUTH OF OAK HALL ACCOMACK COUNTY, VIRGINIA, AT 7:30 P.M., EST, ON WEDNESDAY, 7 JANUARY 1976. All interested parties, including representatives of Federal agencies and State and local governments, are invited to be present or to be represented, and will be given an opportunity to express their views and furnish specific data on all aspects of the proposed work, including technical, economic, social, and ecological and environmental material. Oral statements will be heard, but for accuracy of the record, all important facts and arguments should be presented in writing. Written statements may be either mailed to the District Engineer prior to the hearing or handed to him at the hearing.

PROPOSED WORK

Captain's Cove is a 1,865-acre recreational second-home development currently under construction. The portion of the project for which a Department of the Army permit is required, pursuant to Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403) and Section 404 of the Federal Water Pollution Control Act (P.L. 92-500, 86 Stat. 816, 33 U.S.C. 1344), includes the following:

(*a*) Five navigational channels in Chincoteague Bay will be dredged to a depth of −3.0 to −4.5 feet below mean low water to facilitate boat access to and from upland canals. Three of the channels included in the proposed work are new and two are enlargements of channels previously dredged without a Department of the Army Permit. Approximately 9,590 cubic yards of sand and silt will be dredged from these channels.

(*b*) The excavation (about 45,370 cubic yards) of two new upland canals, Barracuda Inlet and Drum Inlet, to be connected to navigable waters.

(*c*) Completion of the excavation (about 14,443 cubic yards) of an existing upland canal, Flying Fish Canal, and connecting it to navigable waters.

(*d*) Excavation or a flow-through relief canal adjacent to Swans Gut Creek between the development and a natural marsh. This canal was recommended by

the Department of the Interior as a protective measure to prevent further migration of a mud-wave from upland development into the adjacent marsh. The canal will be 40 feet wide, approximately 2,800 feet in length and −3 to −4 feet below mean low water. The dredged material, approximately 14,519 cubic yards of sand, silt and clay, will be deposited on upland areas adjacent to the canal. The relief canal will not be used for navigation purposes and will not be maintained.

(*e*) The construction of marina facilities at the junction of two existing canals, Hammerhead Passage and Mackeral Bay. This will involve the excavation of about 26,666 cubic yards of material to a depth of −6 feet below mean low water and the construction of approximately 1,110 linear feet of open-pile timber piers, 560 linear feet of timber sheet-pile bulk head, and 95 mooring piles. These facilities are to accommodate the mooring of about 100 pleasure craft.

(*f*) The construction of approximately 9,000 linear feet of shell-filled gabions along the eastern and southern perimeters of the project fill areas as a shoreline protection measure. The applicant has been directed by the District Engineer to install the gabion as an interim protection measure against erosion.

(*g*) The deposition of approximately 141,550 cubic yards of dredged and excavated material on 35 acres of wetland (about 18 acres of which have been severely disturbed by previous construction). The purpose of filling these areas is to raise the elevation of low lying lots. It is estimated that approximately 108 acres of wetlands (mostly high marsh) have already been filled at the project site.

Earthen levees surrounding spoil sites and canal banks will be stabilized by planting Spartina alterniflora and Spartina patens where appropriate. A mechanical aeration system is to be installed within the canals, the primary objective of which is to elevate dissolved oxygen levels during the summer months to biologically acceptable levels. Approximately 240 acres of wetlands within the project perimeters will be preserved as natural areas.

Due to the magnitude of the proposed project, an environmental impact statement (EIS) was prepared by the Norfolk District in accordance with the National Environmental Policy Act of 1969.

What you can do

Write Colonel Newman A. Howard, Jr., Chief, Norfolk District—or, better still, read a statement at the hearing:

1. Recommend denial of the application. Restoration of as much marsh as possible. Filling of the canals which have been dug and no new work. No building on flood plains.

2. The proposed septic tanks for the majority of lots should not be permitted and only an advanced central sewage system is a safe method of taking care of waste.

3. Septic tanks and dead-end canals can have very deleterious effects on Chincoteague Bay and the fish and wildlife dependent on the area. Water quality and preserving the ecological health of Chincoteague Bay are more important than providing canals and individual boat parking facilities for vacation homes.

4. If the development is permitted, not only may the commercial fishing industry face serious losses, but Accomack County may be faced in future years with having to provide adequate sewage disposal and other services which could be a great financial burden.

5. Experts will be testifying in support of our stand but we need a real public outcry from people in Virginia and Maryland. If this development goes through, other promoters will be encouraged to follow suit.

6. We sorely need to preserve the marshes, aquatic vegetation and health of the Bay for the fin fish, shellfish, waterfowl and other forms of life whose existence depends on them.

Problems which would be caused by project and excerpts from environmental impact statement.—Chincoteague Bay is one of the most important fish nursery grounds along the mid-Atlantic coast. It is a popular recreation area for visitors to Assateague and the coastal region. There is very little tidal flushing in the Bay, it is highly saline and very high in nutrients. These stagnant conditions are such that it would take very little to upset its sensitive balance.

Dead-end canals.—Dead-end canals are noted for their poor flushing characteristics and no aeration system has so far solved the problem. They can cause considerable damage to the environment, become sediment traps for dead and decaying material, dissolved oxygen is depleted and anaerobic conditions occur. These can result in problems of odor, floating sludge, killing of fish and aquatic life. Stormwater run-off from torrential rains into the canals can bring about stirring of anaerobic bottom sediments and the rain caused circulation could wash into the

bay in sufficient concentrations to cause fish kills and other damage. Shellfish beds could be condemned from pollution.

Septic tank system.—With the ground water table as high as it is in this area and the elevation of the lots being so low (the highest according to the E.I.S. is +8 m.s.l. with most less than that), the septic tank effluent should find its way into the ground water and in time this would thoroughly pollute the subsurface environment, find its way into streams, the canals and eventually the bay. Septic tank utilization is planned for approximately 57%, or 2,882, of the homesites at Captain's Cove.

A central sewage collection system for use by all lots near the water and those interior lots with poor percolation is proposed. The E.I.S. vaguely states "nearly all the interior homesites not planned for the central sewage collection system appear to be inland of the 100-year flood plain limit." On the other hand, the E.I.S. states "the consensus among experts . . . is that a substantial proportion of the pollution reaching canal waters can be attributed to septic tank installation."

4,877 lots are planned on 1128.5 acres, with the remainder of the 1,865 acres being used for roads (234 acres), sewage treatment area (14.8 acres) for the lots bordering the canals and bay; golf courses and recreational areas (238.7 acres); undisturbed wetlands (240 acres).

148 acres of subdivided lots are within the flood plain.—Lots on filled marsh areas average 4.7′ above m.s.l. Flooding occurs in Chincoteague Bay whenever strong offshore winds cause rise in the water level of the ocean and estuaries along the coast. These can reach 9′–13′ above m.s.l.

In 1970 First Charter Land Corporation obtained an independent dredging contract and commenced dredging canals and filling of wetlands without permits from the Department of the Army. Criminal charges were filed and guilty pleas were entered to four violations of 33 U.S.C.A. section 403 and one violation of 33 U.S.C.A. section 407, and a fine was imposed. The most significant ecological impact at the site has resulted from the filling and dredging of wetlands. About 108 acres of coastal salt meadow and several acres of regularly flooded salt marsh were destroyed or modified to create waterfront property and raise the level of low lying lots. In order to obtain as much fill material as possible, some of the canals were dredged 9′–20′ deep. Access from the canals to the bays has not been dug and is included in the present application.

The E.I.S. points out that due to long shore currents frequent maintenance dredging is anticipated. This would cause frequent turbulence and disturb aquatic vegetation and shellfish beds.

The corporation's plea seems to be that since it went ahead and did the work without permits and has sold a majority of the lots, it would be a great hardship on those who have bought lots and expect to be on canals if permit applications are not now granted.

The E.I.S. points out:

2.23 that marshlands such as those found at Captain's Cove "serve a complex and unique role in providing productive fish and wildlife habitat."

2.24 "Wildlife resources on the project site prior to the present construction were extremely abundant as the result of the diversified habitat created by interspersion of upland and wetland types."

4.01 "It is certain that dredging and filling activity at the project site has resulted in the loss of numerous marsh and aquatic organisms . . . about 108 acres of nesting and feeding habitats for birds and mammals, dependent upon the productive salt marsh and salt meadow, have been destroyed or modified."

4.02 "about 13,800 linear feet of finger canals have been cut through wetlands and uplands at Captain's Cove and another 4,400 are planned."

4.33 "a minimal amount of water quality degradation and pollution usually associated with increased boat traffic and mooring facilities will likely occur, for example oil spills, discarded synthetic debris and noise, and in addition, turbulence created by increased boat traffic could have some erosive effects on the unprotected shores."

4.43 "Saline ground water could move into fresh water parts of the aquifer if withdrawals from the Manokin in these areas were significantly increased." There is no guarantee that septic tank systems would not also affect the aquifer.

4.44 "completion of the work is considered to have significant impact on fish and wildlife resources. The fact that a portion of the project with its intended environmental impact has been completed does not lessen the significance of the total environmental impact of the project as a result of the completion of the remaining work."

The Virginia Council on the Environment states that in all probability shellfish areas will have to be condemned and that a buffer zone around the project site will be a likely result. It predicts that despite safeguards a shellfish condemnation will probably be necessary due to the mere presence of large populations in the area. *This would indicate that the Captain's Cove type of development is not suitable for this area, we think.*

It should also be noted that once the First Charter Land Corporation has completed the work it wants to do, it plans to turn over the maintenance of the development to an association of the landowners, leaving them to cope with flooding and pollution and all the problems likely to arise.

This hearing is on the "proposed" final environmental impact statement and therefore statements must be received by the corps immediately if they are to be made part of the final document. We have a sickening feeling that this can be a real disaster area if a sufficient outcry is not made to cause denial of the application—Please help.

Good news for canoeing enthusiasts: Assateague Island National Seashore hopes to have facilities available for canoeists in the spring whereby they can launch their canoes at the bay-side North Beach area and take canoe trips along the bay-side of the Island, with two primitive campsites available where they can spend the night.

The weather at Assateague over Thanksgiving weekend this year was ideal—magnificent for hiking and the waterfowl at Chincoteague National Wildlife Refuge were a treat.

The last report we had the swamp fever which has affected some of the Chincoteague ponies does not seem to be spreading. The ponies that are afflicted are isolated from the rest of the herd.

Happy New Year—and you will be hearing from us again when the E.I.S. on the Intra-Coastal Waterway is issued and when hearings are scheduled on the Assateague amendments.

JUDITH C. JOHNSON, *Chairman.*

NOTE.—Appallingly, Virginia has issued all necessary permits to Captain's Cove. This is our only chance to halt the project. The E.P.A., F.W.S., and National Marine Fisheries are worried. Citizen input is our *only* hope. *Please*—put this ahead of everything else!

COMMITTEE TO PRESERVE ASSATEAGUE ISLAND,
July 18, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: May I tell you how really concerned and upset all the conservation organizations are in Maryland that you have scheduled such a limited number of people to testify concerning S. 2710 on July 28th—five against and only two in favor of the bill!

The Clean Water Act is one of the most important pieces of legislation to be considered by Congress because the future of so many of our irreplaceable resources are dependent upon strong legislation along this line. The environmental movement in Maryland began over involvement in the enactment of Maryland's Wetlands Law. Those who have been involved over the years have witnessed how inadequate it is in many ways and how political pressures influence the state to make unwise exceptions to the terms of the law over and over again. The Virginia Wetlands Law is even weaker.

I have worked closely with the Maryland Department of Natural Resources and the Department of State Planning, both with the secretaries and with the staff. Many is the time the staff ask me to do what I can to avert the decision-making people from bending to pressures—and how helpless we are unless we can fall back on or count on opposition from the E.P.A., the U.S. Fish & Wildlife Service and/or the Corps. In my capacity as Chairman of the Committee to Preserve Assateague and as a member of the Maryland Wetlands Committee, I have been involved with wetland issues in Maryland, Virginia, and the entire Delmarva area.

The Chairman of the Maryland Wetlands Committee has been in touch with you, and before she went to Europe she asked me to give testimony before the Senate Public Works Committee for the Maryland Wetlands Committee. I was also anxious to address the subject on behalf of the Assateague Committee as we have had even broader experience and have worked more closely than other

organizations not only with the states of Maryland and Virginia but with the U.S.F.W.S., E.P.A., Corps of Engineers and the National Marine Fisheries. The national conservation organizations can address certain aspects and an overall view, but I think it is unfortunate if you do not let at least one representative from a grass roots conservation organization speak. During the past two years I have been invited to testify before the Senate and House Interior Committees regarding amendments to the Assateague legislation, and also before the House Merchant Marine & Fisheries Committee and the House Ad Hoc Co mittee on the OCS regarding the effects of oil drilling off the Atlantic Coast on the states.

Most recently we acted as the coordinator and liaison for the fifty conservation organizations which opposed the proposed Delmarva Intra-coastal Waterway, and we represent and have on our mailing list 1,400 individuals and state and national conservation organizations. We are members of both the Maryland and Virginia Conservation Councils. I hope you may let us testify at the hearings' but, in any event, I shall prepare a formal statement which I will send later this week to be included in the record for the hearing on S. 2710.

In advance of sending the statement, I will say that we think it is most unfortunate that Congress is considering unwise amendments at this time. To enact the Wright-Breaux amendment would be a disaster, and if anything is done to the Federal Water Pollution Control Act, then no more than the amendment introduced by Gary Hart should be adopted, which would allow time for a study of the present regulations with a firm report to be made by December 1977. This would be far better than hastily making mistakes in the heat of an election year, removing the little protection we have had in recent years. The states are not doing the job and few have wetlands laws, and the laws that are on the books are inadequate.

Sincerely yours,

JUDITH C. JOHNSON, *Chairman.*

CONSERVATION COUNCIL OF VIRGINIA, INC.,
May 17, 1976.

Hon. HOWARD BAKER,
Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR BAKER: The Conservation Council of Virginia urges you to vote against H.R. 9560, which drastically weakens the Water Pollution Control Act through amendments excluding 85% of the wetlands from federal protection, removing needed safeguards from grants for municipal sewage treatment facilities, and lowering penalties for hazardous spills.

The Council supports instead legislation to extend the funding for the Water Pollution Control Act in order that its implementation may continue in an orderly fashion and in order that ongoing pollution abatement efforts may be encouraged and assisted according to the provisions of the law which have stimulated these efforts.

The Council will continue to support the 1972 amendments of PL 92-500 and the goals of the law as a necessary and attainable commitment to clean water in Virginia as well as in the rest of the nation.

Sincerely yours,

GEORGE HAGERMAN, *President.*

[From the Forum, February 1976]

POSITION PAPER OF CCVA ON FEDERAL WATER POLLUTION ACT

(By Newton Ancarrow)

The Water Pollution Control Act is a comprehensive piece of legislation, complicated with many facets and implications. This document addresses only three of the more important, and at this time, more pressing issues. They are:

1. 1977 DEADLINE

Section 301 of PL 92-500 requires the attainment of defined "secondary treatment" for all publicly owned treatment works and "the best practicable control technology" by industry. As the National Commission on Water Quality points out in its Staff Draft Report of November 1975, universal secondary treatment by

publicly owned treatment works cannot be achieved by July 1, 1977, and a large number, if not a majority, of industrial discharges will meet the standards while some, for varied reasons, will not.

It is the position of CCVa. that the 1977 Deadline should, under no circumstances, be postponed. Furthermore, it is the position of CCVa. that under no circumstances should HR 9560, Section 9, be passed. This legislation would authorize the Administrator of the Environmental Protection Agency to exercise his discretion in extending the '77 Deadline on a case by case basis. This, in the first place, would make PL 92–500 unenforceable. In the second place, there has been no evidence that the administrator either has the will or the ability to exercise his discretion in compliance with PL 92–500. In fact, it is probably the improper exercise of his discretion that principally gives rise to the question of extending the deadline. In the third place, the process of determining whether or not to delay the deadline on a case by case basis is already in place through the provisions of PL 92–500 in the courts.

With regard to the question of postponing the Deadline, it is exceedingly hard to know how to assess culpability since the fault lies all the way down the governmental line: federal, state, and local. Since the passage of Public Law 92–500, there has been no commitment of the Administrative agencies to meet the deadlines, mandates, and goals of the law. In fact, there has been atrocious administration of the act since its passage. There is considerable evidence to indicate that from its passage on October 18, 1972, this law has been administered in anticipation of not meeting the 1977 Deadline and without other set goals and objectives.

To delay the 1977 Deadline is to breach faith with those industries and municipalities who will meet the Deadline voluntarily. They have taken the law seriously and have committed goods and effort only to find that their faith in the law misplaced; only those who ignored the law are apparently the winners. To delay the Deadline would destroy public confidence in the effectiveness of the law and further erode confidence in the government to enforce its mandates received from the public.

Quite aside from legal and ethical aspects, Public Law 92–500 is a series of interrelated studies and mandates with the ultimate purpose of clean water in a reasonably attainable time frame. If the 1977 Deadline is postponed, it will upset the whole schedule and will, in all probability, through future similar delays, frustrate the deadlines of 1983 and 1985.

2. FINANCING

It is the position of CCVa. that pollution is an overt act, the responsibility for which may not be transferred. This simply means that it is the responsibility of each household, industry, municipality, or political subdivision to abate, control, or eliminate their own water pollution. This responsibility extends to each individual engaged in an activity that causes pollution, nor may the burden be shifted for any reason. Specifically, there must be a definite legislative separation of the responsibility to abate water pollution and the availability of federal funds.

Since there seems to be considerable confusion, rightly or wrongly, as to whether or not a municipality is required by law to abate its pollution unless it receives its full share of federal assistance, it is apparent that the legislation should be made amply clear. There are obviously two courses that can be taken in a social legislation decision. Either it must be clear that:

A. It is the responsibility of each political subdivision to control its own pollution and that any federal financing is assistance, and simply that. However, to make it equitable, it should be stated that if a political subdivision uses its own resources for its own pollution abatement program that any funds in excess of 25 percent used will be rebatable with interest (at the current bond rate) out of any future federal appropriation in an equitable manner. This procedure to be implemented under Section 12 of PL 92–500 and is recommended by CCVa. to reinstate the concept of self-reliance. Or:

B. The federal government must accept the financial burden and provide sufficient funds, in a timely manner, to insure that funds will be available, up to the 75 percent, so as not to delay the program. In this event the federal government must make certain that: 1) there are sufficient funds available for timely compliance with PL 92–500; 2) there is capable, accountable administration; 3) the pollution is abated; 4) the money for this goal is not diverted into projects which will waste money or expand the size or authority of the bureaucracy.

3. PUBLIC PARTICIPATION

PL 92–500 presently mandates public participation; this must be implemented. Presently little opportunity exists for meaningful public participation, particularly in the N.P.D.E.S. Permit program, the functional center of PL 92–500. Any effort to participate ultimately results in an adversary confrontation in a formal, highly structured, and inhibiting procedure. Obstacles for the average concerned citizen are interminable, unreasonable delays and restrictions. The burden is for the citizen to provide detailed, technical engineering solutions remote from average resources. Bureaucracy intimidates the citizen; where is the Forum to say, "I want clean water?" To his demand comes assurances that he is getting clean water, when in fact, he is not. The public is purposely being excluded from the decision process. Citizens are not losing concern for water quality; any declining activity stems from frustration, not apathy.

Citizen participation is too complicated. Bureaus, agencies, and commissions, by being too defensive, are institutionalizing pollution so that it will be permanent. They have become a fourth branch of government.

An equitable system must be found to reestablish public confidence that: 1) the water will be clean; 2) on schedule; 3) their input will be heard and accommodated if possible; 4) some method will monitor the job's completion; 5) there is some method to assign culpability and accountability; 6) breaches of confidences, violations of law, will be penalized. Otherwise, the public may withdraw from the water quality scene entirely.

This responsibility without accountability dissolves public faith. The veil of sovereign immunity must be shed to make the government accountable to citizen mandates. In water quality we must stop operating under the doctrine of "Rex non potest picare:" "The king can do no wrong."

The bureaucracy has developed into a complete government, in and of itself, commanding 1) legislation: regulations which have the force of law; 2) administration exercise of discretion protected by sovereign immunity; and 3) justice: public and adjudicatory hearings. Yet there is no accountability. This could quickly develop into government without representation.

THE CONSERVATION FOUNDATION,
Washington, D.C., July 27, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: In response to the Committee's request, The Conservation Foundation is submitting this statement to the Senate Public Works Committee in support of the dredge and fill permit program, as developed and implemented by the Corps of Engineers and the Environmental Protection Agency pursuant to Section 404 of the Federal Water Pollution Control Act Amendments of 1972 (FWPCAA) (P.L. 92–500). Among the reasons for our support of the program are the three discussed below.

First, the present 404 program has not been abused, but rather has been effective in protecting our water resources. By denying permit applications for 404 activities which would have had a significant adverse impact on the aquatic environment, the Corps of Engineers has saved many acres of valuable wetlands which, except for the program, would probably have been irreparably destroyed. Areas within the Section 404 program jurisdiction, such as tributary waterways and their associated wetlands, have a water cleansing capability. These areas may also serve as spawning and nursery areas for commercial and sports fish; as recharge areas of groundwater for water supplies; as natural protection from floods and storms; and as essential nesting and wintering areas for waterfowl.

The COE has demonstrated that it is capable of administering the program in a responsible and evenhanded manner. The excessive administrative burden (and thus the financial burden to taxpayers) that many feared would be brought about by increased numbers of Section 404 permit applications appears to have been overestimated. Assistant Secretary for Civil Works Victor V. Veysey, in a letter to Representative James L. Oberstar dated June 3, 1976, stated that one reason for this is the Corps' expanding use of the general permit to authorize similar types of work in an area having minimal adverse environmental impact. The use of the general permit will lessen the burden of the increase in the workload resulting from implementation of Phases II and III of the 404 program.

Second, neither the Congress nor the public has taken the opportunity to consider carefully all possible ramifications of amendments to the 404 program nor has the existing program been given a chance to show that it can be workable and reasonable. The Wright amendment passed the House without a hearing, and should this amendment be enacted into law, the present program would be changed drastically. One basic change, for example, would be the creation of a different definition of "navigable waters," one which is far more restrictive in scope than the pre-1972 definition and the definition in the 1972 Act ("waters of the United States, including the territorial seas" (Section 502(7)). Many such changes have not received public attention or debate.

In the Veysey letter mentioned above, the Assistant Secretary expressed his belief that Phase II of the present program should be given a chance to work by seeing how the actual permit workload develops. He recommended, as does The Conservation Foundation, resistance to legislative action based on huge projections of permit applications.

The public has not had the opportunity to find out what effects the implementation of Phase II of the present program might have on their activities which would become subject to regulation under Phase II jurisdiction. There may also be questions about precisely which geographic areas do come within the Phase II jurisdiction. The Congress should consider giving the Corps enough time to hold a series of public meetings to allow public debate of 404 program issues and to clarify any misunderstanding which members of the public may have concerning activities regulated and jurisdictional coverage.

We cannot overemphasize the importance of the duty of Congress to itself and to the citizens to make certain that every issue has been raised and discussed. Congress will have fulfilled this duty only when it has examined the specific problems associated with regulation of the deposition of dredged and fill material within the context of the regulation of all activities causing water pollution. Without such a thorough examination, any amendment Congress passes would be premature.

A third reason we support the present 404 program is that it cannot be replaced by any other program. It is highly unlikely that any 404 program which reflects a compromise in jurisdictional coverage can regulate dredge and fill activities as effectively as the present program. The Corps has not overregulated; rather it has changed its approach to environmental problems and has shown commendable ability to consider both environmental and economic factors in deciding whether issuance of a particular permit would be in the public interest.

We would find acceptable amendments proposed to Section 404 which would explicitly authorize the use of general permits for regulation of dredge and fill activities. Also acceptable would be explicit exemption from regulation of normal farming, silviculture and ranching activities, such as plowing, cultivating, and harvesting; as well as exemption from regulation of the construction and maintenance of farm ponds, stock ponds, and irrigation ditches and the maintenance of drainage ditches.

The Conservation Foundation strongly believes that the present 404 program is the common-sense approach for regulation of dredge and fill activities in the waters of the United States. The program provides an extremely important means for enabling us to restore and maintain the integrity of our Nation's waters, while insuring that this and future generations can enjoy the benefits resulting from having protected our wetlands.

Thank you for allowing us to have the opportunity to submit our comments to you and the Com mittee on this program.

Sincerely,

WILLIAM K. REILLY, *President.*

CONSERVATION SOCIETY
OF SOUTHERN VERMONT,
July 26, 1976.

Senator ROBERT T. STAFFORD,
5219 Senate Office Building,
Washington, D.C.

DEAR SENATOR STAFFORD: Thank you for the invitation to submit a statement of our organization's views on Section 404 of the Federal Water Pollution Control Act to the Senate Public Works Committee for its consideration during the oversight hearings this week. Enclosed is a copy of our statement; I appreciate your submitting it to the Committee for inclusion in the hearing record.

I hope that you will be able to take a strong position in opposition to any weakening amendments to Section 404 during the Committee's deliberations. Thank you for your consideration.

Sincerely,

MICHELE FROME, *Assistant Director.*

Enclosure.

STATEMENT OF CONSERVATION SOCIETY OF SOUTHERN VERMONT

The Conservation Society of Southern Vermont is a private, non-profit organization of nearly a thousand members, founded in 1966 in response to the growing need to protect the natural resources of Vermont. The Society's programs include land acquisition and management, legal advocacy, public information and education. These programs are devoted to the wise use of land, forest, and water. The Society is particularly concerned with land use programs in Vermont, including wetlands protection.

At the invitation of Senator Stafford of Vermont, the Conservation Society welcomes the opportunity to express its views concerning Section 404 of the Federal Water Pollution Control Act to the Senate Public Works Committee. We are pleased that the Committee chose to hold oversight hearings on the matter of proposed amendments to this section. To assist the Committee in its deliberations, this statement will discuss briefly the importance of the Section 404 program in Vermont.

Within the state of Vermont, where recreation is one of the major economic activities, the water resources of the state are among its most valuable assets. Wetlands are a critical part of this resource base, as habitat for wildlife, as water storage and purification areas, and as an integral and essential part of river and stream systems.

Along with other land resources, wetlands have been particularly threatened by rapid and haphazard development within the state. In response to this problem, Vermont has enacted certain land use and water quality regulatory programs. Unlike other states, however, Vermont has *no* comprehensive wetlands protection legislation.

Vermont's current programs do offer some piecemeal protection for wetlands. The state does regulate dredge and fill activities on lands lying under the mean water level of public lakes and ponds, but this does not include many other wetland areas associated with lakes and ponds. Vermont also has a stream alteration regulatory program, but this also excludes many adjacent wetland areas. Act 250, Vermont's Land Use and Development Control Law, offers regulatory protection for wetlands, but applies only to a limited range of eligible projects.

In its 1973 State Comprehensive Outdoor Recreation Plan, the Agency of Environmental Conservation concluded that "a program of increased public protection of wetlands is deemed necessary." The present Section 404 Dredge and Fill Permit Program is valuable to Vermont in that it provides this increased protection of wetlands not otherwise covered under existing state regulatory programs.

The importance of Section 404 of Vermont, then, lies in the fact that it provides regulatory protection for *all* waters, including wetlands, streams, and lakes.The Wright Amendment to Section 404, as adopted by the House of Representatives, would effectively eliminate this protection from the program by restricting the scope of the program to "navigable waters" as narrowly defined.

For this reason, the Conservation Society of Southern Vermont opposes the Wright Amendment to Section 404, and urges the Senate Public Works Committee to act to maintain this section in its current form. Next year will be a more appropriate time for the Congress to consider alterations to the Federal Water Pollution Control Act, when the report of the National Commission on Water Quality is considered. Altering the Section 404 Program in such a way as to narrow its scope at this time would be unnecessary and unwise.

Thank you for your consideration of our views.

DECATUR, GA., *July 23, 1976.*

Hon. Jennings Randolph,
Chairman, Public Works Committee,
Washington, D.C.

DEAR HONORABLE RANDOLPH: I am writing in regard to the hearing on July 27–28 about the amendments to the Clear Water Act and would like my comments entered in the hearing record.

The Wright-Breaux Amendment to H.R. 9560 is unacceptable since it excludes wetlands from protection under Section 404 of the Federal Water Pollution Control Act. It is not time to be amending Section 404 until the whole program has gone into effect. The Hart-Cleveland amendment is preferable to the Wright-Breaux Amendment. The wetland areas are vital to our ecosystems and should not be destroyed. Also there should be control of materials being channeled into drinking water supplies and the House amendment would stop regulation of this. The Hart-Cleveland amendment would provide for a progress report to be received at the end of 1977 and I feel this is a good plan.

Thank you for your attention.

Sincerely,

THERESA CROMEANS.

MILL VALLEY, CALIF., *July 30, 1976.*

Re Strengthen 404 program.

SENATE PUBLIC WORKS COMMITTEE,
4202 Dirksen Office Building,
Washington, D.C.

DEAR COMMITTEE MEMBERS: Please keep our 1972 Water Pollution Control Act to prevent pollution of our marshlands that produce fish for our oceans and our people who need more food production.

Control amendments that make useless the 404 program.

It is a cleaner country we need. The year 2000 is less than 25 away.

Please make this request part of the Public Hearing Record.

A concerned for future citizens taxpayer.

EVELYN M. CURTIS.

STATEMENT OF THE MARYLAND WILDLANDS COMMITTEE

The Maryland Wildlands Committee has considered in detail the Clean Water Act of 1972, and in particular its Section 404. While all of this act is not entirely to our liking, we nevertheless feel that Section 404 should be left as it is for the present, until sufficient time has elapsed to see how it works out as a whole.

We feel strongly that hasty efforts to change it (such as the House of Representatives' Wright-Breaux amendment) are based on incomplete and flawed information.

From our long-term investigations covering all of the State of Maryland, which provides a good cross section of the varieties of terrain found in all the contiguous United States, and from our conversations with many people directly affected by legislation covering water quality, we feel that overall even-handed planning and control is far preferable to allowing individual jurisdictions to deal piecemeal with water quality. Surely a river or a bay does not know when a state boundary is reached, and to have such bodies of water treated differently by adjacent states is tempting providence. The same holds true for the tributaries, which need overall protection just as much as the larger bodies of water.

We are overwhelmingly in favor of leaving Section 404 as it is for the time being.

SALLY H. DIEKE,
Deputy Chairman, Maryland Wildlands Committee.

DENHAM SPRINGS, LA., *July 28, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

For the record of the hearing on section 404 of the Clean Water Act.

As an interested citizen of Louisiana, the United States, and the Planet Earth, I should like to go on record in favor of Section 404, WITHOUT AMENDMENTS. If it must be amended I prefer the Hart-Cleveland Amendment to the Wright-Breaux.

Surely the protection of clean water, what there is left of it, and clean air, what there is left of that, should be the primary concern of all of us, and most certainly of our elected representatives.

If the Wright-Breaux amendment is passed there would be no control of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's definition of "navigable waters." This we cannot allow to happen.

Please consider the future as well as the future of all of us when hearings are held.

Very truly yours,

MS. NANCY P. DOERR.

[Mailgram]

ALBUQUERQUE, N. MEX., *July 29, 1976.*

Senator JENNINGS RANDOLPH,
2151 Dirksen Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: I feel Public Law 92–500 Section 404 is a good law in its present form. Do not allow any damaging amendments to be added such as individual state enforcement of this law. We must save our lakes, streams and marshlands to protect our wildlife which has been diminishing as their habitats have been destroyed. I want this telegram to be read into the hearing record.

Sincerely,

SONDRA DIEPEN.

CLAIREMORE, OKLA.

Hon. JENNINGS RANDOLPH,
5121 Dirksen Building, Washington, D.C.

Section 404 of Public Law 92–500 is the best wetlands protection ever. I strongly oppose amendment that would weaken its effectiveness. Please read into committee record.

FORREST DOWLER.

ARLINGTON, VA., *July 22, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Washington, D.C.

DEAR SENATOR RANDOLPH: The following comments are being sent for inclusion in the record of the hearings of July 27–28 on section 404 of the Clean Water Act.

Section 404 of the Clean Water Act is far too important and valuable portion of the act to be subjected to amendment in the heat of an electoral year and when opposition to implementation of the regulations has been fanned by misinformation about the scope of the regulations.

There is no need for me to repeat detail about the importance of the wetlands in their help in filtering the water we drink, their value in soaking up and buffering flood crests, their necessity for breeding grounds for the lower end of the food chain. Removal of Federal controls as spelled out in the Wright-Breaux amendment would be a national disaster and of a malignant type that can't be remedied once the wetlands are destroyed as they would be.

I strongly urge first that action to amend section 404 be postponed, permitting the three phase program to go into effect.

The second choice would be for the Senate Hart-Cleveland amendment which would provide a progress report for review by Congress at the end of the next year and still provide the vital protection of the regulations.

With hope.

Sincerely,

THELMA C. DUVINAGE.

ENVIRONMENTAL DEFENSE FUND,
Washington, D.C., July 26, 1976.

Hon. HOWARD H. BAKER, Jr.
United States Senate, Committee on Public Works, Washington, D.C.

DEAR SENATOR BAKER: We appreciate your kind invitation to submit testimony on proposed amendments to Section 404 of the Federal Water Pollution Control Act.

Our testimony is attached. Please include it in the record of the July 27 and 28, 1976, hearings of the Committee on Public Works.

Thank you for your consideration. Do not hesitate to call on us, if we can be of further assistance.

Very truly yours,

ROBERT H. HARRIS, Ph. D.,
Co-Chairman, Toxic Chemicals Program.
EDWARD THOMPSON, Jr.,
Washington Counsel.

TESTIMONY OF THE ENVIRONMENTAL DEFENSE FUND, INC.

The Environmental Defense Fund, Inc. ("EDF") is a not-for-profit, public interest organization with a nationwide membership of some 41,000 citizens and a staff of scientists, lawyers and other professionals dedicated to the improvement of environmental quality and the wise use of natural resources. EDF has been active in efforts both to conserve ecologically-valuable wetlands and to halt the dispersion of toxic substances throughout the human environment, including public drinking water supplies.

We appreciate the invitation of Senator Baker to testify before this Committee on amendments proposed to Section 404 of the Federal Water Pollution Control Act Amendments of 1972. Because we anticipate that other organizations will discuss the importance of wetlands conservation, EDF will restrict its testimony to the implications of the amendments as they relate to toxic substances in our waters.

CONCLUSIONS

On the basis of the legal and scientific analyses of the amendments outlined below, EDF concludes that the proposed amendments would open an enormous loophole in the control scheme of the Federal Water Pollution Control Act Amendments ("FWPCA"). This loophole will permit, and may even encourage, the discharge of some of the most hazardous pollutants known—toxic and carcinogenic substances—into roughly 85% of the Nation's surface waters and wetlands, in cases where these substances are present in "dredged or fill materials" of any kind.

Further, under the amendments it will be impossible to determine when or where toxic substances are present in dredged or fill materials prior to discharge. Absent regulation, no mechanism will be available by which to require the advance testing necessary to protect the public health. Both the National Cancer Institute and the World Health Organization have concluded that 60 to 90% of all human cancers are caused by chemicals in the environment, including some of the very substances the discharge of which will be permitted by the amendments.

THE AMENDMENTS COMPARED WITH THE INTENT OF THE FEDERAL WATER POLLUTION CONTROL ACT

The amendments now proposed to Section 404 of the FWPCA (the so-called Wright amendment) define the scope of Federal jurisdiction very narrowly for purposes of controlling discharges of dredged and fill materials and, thus, mark a significant departure from the comprehensive water pollution control scheme envisioned by the drafters of the Act, including some members who today sit on this Committee.

The legislative history of the FWPCA makes it very clear that the Act was intended to remedy a fundamental weakness of the Water Quality Act of 1965, P.L. 89-234, 79 Stat. 903, namely, an exceedingly narrow and thus ineffective definition of Federal jurisdiction. According to the Report of the Senate Committee on Public Works, No. 92-414 (October 28, 1971):

"Through a narrow interpretation of the definition of interstate waters the implementation [of the] 1965 Act was severely limited. Water moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source." At 77.

The Conference Report on S. 2770, which became the FWPCA, No. 92-1236 (September 28, 1971), also recognized the need for a truly comprehensive jurisdictional approach if the possibility was to be avoided that some discharges of pollutants might slip through the cracks of a narrowly-framed statutory scheme:

"The conferees fully intend that the term navigable waters be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes." At 144.

One of the "agency determinations" which the Conference undoubtedly viewed as an encumbrance was the Corps of Engineers' self-imposed limitation of its

jurisdiction under the Refuse Act, 33 U.S.C. 401, *et seq.*, to the ordinary or mean high water line. This line marks the traditional limit of Federal admiralty jurisdiction, *Waring* v. *Clarke*, 5 How. (46 U.S.) 441, 463 (1847), and was for the Corps an administratively convenient approach to defining its jurisdiction for purposes of maintaining navigation.

However, the ordinary or mean high water line has no relevance to the hydrologic cycles on which—as the Senate Public Works Committee once recognized—the control of pollution and the protection of the integrity of the Nation's waters must be predicated in order to be effective. Thus, the Congress explicitly rejected this narrow definition of Federal water pollution control definition in favor of the broad, comprehensive definition encompassing all "waters of the United States," including portions thereof, tributaries thereof, the territorial seas and the Great Lakes. Section 502(7); Senate Rep. No. 92–414, *supra*, at 77.

Although it contains numerous ambiguities, the Wright amendment adopts essentially the same narrow definition of Federal jurisdiction once rejected by the Congress in enacting the FWPCA. However, the amendment retreats even farther from a comprehensive jurisdictional approach than did the Corps of Engineers, since the amendment eliminates considerations of historical navigability employed by the Corps in regulating dredge-and-fill discharges throughout the years to the present day under the Rivers and Harbors Act of 1899, 33 U.S.C. 401, *et seq.* For the first time, the terms "ordinary" and "mean high water" appear in a water pollution control statute, thus codifying the arbitrary jurisdictional limitation which the Corps imposed upon itself. *Compare, U.S.* v. *Sexton Cove Estates*, 8 ERC 1657, 1659, F. 2d (5th Cir. 1976).

The amendment further seems to provide that, other than under Section 404 as amended, the discharge of dredged and fill materials is not subject to regulation under any other provision of the FWPCA or the Rivers and Harbors Act of 1899, *supra*. And, although the amendment purports to add to the definition of jurisdiction of "adjacent wetlands," it is not clear, because of the ambiguities created in the statute, that such regulation will be permissible.

The upshot of the amendment, thus, seems to be that several broad categories of pollutant discharges may occur with impunity and without advance testing for toxic chemicals:

(1) The discharge of materials dredged from navigable waters into wetlands and non-navigable waters,

(2) The discharge of dredged materials into wetlands and non-navigable waters, incidental to dredging in non-navigable waters, and

(3) The discharge of any "fill" material into wetlands and non-navigable waters.

CONSEQUENCES OF THE AMENDMENT IN TERMS OF THE FWPCA AND THE SAFE DRINKING WATER ACT

The proposed amendment would allow broad categories of pollutant discharges to fall through a gaping crack in a once-comprehensive FWPCA. The back door would be opened to the discharge of toxic substances in "dredged and fill materials," thus undercutting the provisions of Section 307 of the Act under which the EPA this week is holding hearings to establish toxic effluent standards. The language of the amendment would not require advance testing to determine when and where toxic substances are indeed present in whatever a person chooses to call "dredged material" or "fill material."

Further, the proposed amendment would work at cross purposes with the recently-enacted Safe Drinking Water Act, P.L. 93–523, 88 Stat. 1660. The purpose of this statute is to reduce human exposure to toxic substances by requiring treatment of public drinking water supplies. Discharges of toxic substances through the "dredged and fill materials" loophole created by the amendment could impose an added, incremental cost on treatment facilities in an effort to comply with the Safe Drinking Water Act. The alternative to greater costs of treating waters contaminated with greater concentrations of toxic substances is an increased risk to public health.

CASE EXAMPLES OF TOXIC DISCHARGES WHICH MAY BE PERMISSIBLE UNDER THE AMENDMENT AND THEIR POTENTIAL PUBLIC HEALTH EFFECTS

Toxic substances are widely distributed throughout our environment, including our waters. Many of these substances either have been shown to cause cancer or are suspected carcinogens, and their presence should not be taken lightly. EDF has investigated instances where toxic substances either have been discharged

into waters of the United States, or could be so discharged, in a form which constitutes "dredged and fill materials" within the meaning of the FWPCA. These instances are outlines below, together with a discussion of the public health effects of the substances, by way of demonstrating that the threat created by the Wright amendment is not an illusion, but is real indeed.

1. Toxaphene in Brunswick, Ga.

In autumn of 1972, sediments from a tidal creek containing toxaphene from a manufacturing plant were dredged and disposed of in a diked marsh. This discharge apparently would be subject to regulation and testing regardless of whether the proposed amendment is enacted. However, similar discharges could occur in nearby non-navigable waters or discontiguous wetlands in solid form so as to constitute "dredged or fill materials." Under these circumstances, the discharge would not be subject to Federal regulation under the amendment.

Toxaphene is a chlorinated hydrocarbon pesticide which is highly toxic to both vertibrates and invertibrates. It accumulates in plants and animals and is highly persistent in the environment.[1] Studies done for the National Cancer Institute indicate that toxaphene is carcinogenic in both rats and mice.[2]

2. Heavy metals in Baltimore Harbor/Swan Point, Md.

A permit application under Section 404 is now pending before the Baltimore District of the Corps of Engineers requesting permission to discharge chemically-polluted dredge spoils from Baltimore Harbor into a non-tidal wetland area at Swan Point, Kent County, Maryland, on the Chesapeake Bay. A substantial question exists as to whether this discharge would be subject to regulation under the proposed amendment.

An EPA analysis of sediments from Baltimore Harbor and from a "clean" site in Chesapeake Bay showed the following comparative profile of chemical constituents:

[Parts per million]

Pollutant	Range of concentrations	
	Clean site	Baltimore Harbor
Lead	0.7	936–3,271
Zinc	27	2,589–4,710
Cadmium	0.23	315
Mercury		0.26–0.68
Chromium		2,654–9,425
Copper		320–518
Volatile solids	5,800–20,000	142,200–217,700
Chemical O^2 demand	2,390–10,540	343,280–666,980
Oil and grease	140–460	17,510–81,220
Total Kjeldahl N^2	140–770	2,703–6,220

In this instance, testing of sediments apparently occurred only because of Federal jurisdiction over the discharge. A discussion of the public health effects of the toxic substances contained in the dredge spoil follows.

Lead is a toxic metal which is suspected of producing impaired neurologic and motor development and renal damage in children.[3] Recent studies in England have demonstrated mental retardation in children at levels of lead in drinking water exceeding 800 ppb.[4] Lead has also been shown to be toxic to some fish at concentrations as low as 6 ppb.[5] The Chesapeake Bay, of course, is a fishery resource and a source of food.

A cadmium drinking water standard of 10 ppb has been promulgated by EPA because of the serious toxic potential of this metal. Epidemiological evidence demonstrates that cadmium may be associated with renal arterial hypertension and with itai-itai disease in Japan.[6] Because of the extreme toxicity of cadmium to fish, EPA has proposed a criterion of 0.4 ppb to protect certain fish species.

[1] Environmental Protection Agency, Criteria Document, Toxaphene, No. 440/9–76–014.
[2] National Cancer Institute, July 1976, "Experimental Design Status Report on Endrin and Toxaphene."
[3] Environmental Protection Agency, 1973, "EPA's Position on the Health Implications of Airborne Lead."
[4] Beattie, A. D., et al., "Role of Chronic Low-Level Lead Exposure in the Aetiology of Mental Retardation," *Lancet*, 589–92 (March 15, 1975).
[5] Environmental Protection Agency, 1976, "Quality Criteria for Water."
[6] National Academy of Sciences, 1972, "Water Quality Criteria."

Acute mercury toxicity is characterized by severe nausea, vomiting, abdominal pain, bloody diarrhea, kidney damage and death, usually within 10 days. Chronic exposure produces inflammation of the mouth and gums, swelling of salivary glands, excessive salivation, loosening of teeth, kidney damage, muscle tremors, spasms of the extremities, personality changes, depression, irritability and nervousness.[7] Because of its extreme toxicity, a mercury drinking water standard of 2 ppb has been promulgated by EPA.

Chromium is carcinogenic (cancer-causing) when inhaled, although it is not known whether a similar hazard exists when it is ingested. Studies on dogs have shown that low levels of chromium exposure (0.033 mg/kg body weight) increased excretory and motor activities of the intestines.[8] For these reasons, EPA has promulgated a drinking water standard of 50 ppb chromium.

3. Heavy Metals in West Virginia Streams.

In the Coal River Basin, local communities have experienced flood problems due to the accumulation of mine runoff in nonnavigable streams and rivers. A dredging and disposal operation apparently is planned to relieve the flood problem, and is but one of many similar dredging projects which have been conducted in non-navigable streams downstream from coal mines in West Virginia. Other projects of this type include: Tug Fork of the Big Sandy River, Brammwell in the Bluestone River Basin, Mont Calm on the Bluestone River, Princeton on the Bluestone River, Richwood on the Cherry River, and Griffithsville in the Guyandott River Basin. (Personal communication, Mr. Charles McIntype, Huntingdon Corps of Engineers). The sediments in waters which have been exposed to coal mine tailings and runoff typically contain toxic substances such as mercury, zinc, iron, nickel and arsenic. Dredging and incidental discharge of these sediments can release them into the water column. This type of activity would not be subject to regulation under the proposed amendment.

The health effects of mercury have been noted above. Nickel and arsenic have been shown to be carcinogenic to man when inhaled and some evidence suggests that arsenic is carcinogenic when ingested.[9] Human health effects associated with chronic arsenic poisoning include gastrointestinal catarrh, kidney degeneration, tendency to edema, polyneuritis, liver cirrhosis, bone marrow injury and exfoliate dermititis.

4. PCB's in Antietam Creek, Great Lakes and the Hudson.

On June 18, 1976, the *Washington Post* reported that in 1972 the U.S. Geological Survey found PCB concentrations of 1200 ppb in sediments of Antietam Creek, a non-navigable tributary of the Potomac. High PCB concentrations in the Great Lakes and the Hudson River have caused great concern in recent months and have led to a ban on commercial fishing for certain species. A recent U.S.G.S. survey showed the following maximum concentrations of PCB in sediment samples from representative states:

State:	
Alaska	0
Colorado	2, 000
Idaho	0
Iowa	2, 000
Maine	0
New Mexico	2, 000
New York	18, 000, 000
North Carolina	0
North Dakota	0
Tennessee	0
Texas	990, 000
Vermont	----------
West Virginia	----------

Dredging and disposal of PCB in non-navigable waters, wetlands and tributaries can release these substances into the water colunm, yet in some cases these discharges would not be subject to testing and regulation under the proposed amendment. PCBs (polychlorinated biphenals) are used in electrical conductors which often are disposed of in landfill.

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[7] The Merck Index of Chemicals and Drugs. 1960.
[8] Naumova. M. K., *Gig. Tr. Prof. Zabol.*, 9, 52–55 (1965)
[9] Chen, K. P., and H. Wu, *J. Formosa Med. Assoc.*, 61, 611–618 (1962).

PCBs have caused a severe form of skin disease, neurological disorders and hearing loss in humans who consumed contaminated rice oil. In experiments on monkeys, PCBs fed in concentrations similar to those found in fish from the Hudson River caused reduced numbers of pregnancies and smaller offspring. PCBs have also been shown to cause liver cancer in rats, increased production of certain enzymes in the livers of laboratory rats and humans, induction of porphyria in several animal species, interference with the immunity mechanisms in rabbits, neurological disorders in rats, and toxic effects in chick embryos.[10]

5. Dupont Toxic Waste-in-Search-of-a-Dump.

For years, the DuPont Chemical Works in Belle, West Virginia, disposed of its toxic wastes by barging them down the Mississippi River and dumping them, pursuant to an EPA permit under the Marine Protection, Research and Sanctuaries Act, in the Gulf of Mexico. When EPA refused to renew the permit, DuPont was forced to store 8 million gallons of this waste in Louisiana while they searched for acceptable dump sites in Florida, Texas and back in Louisiana. Finally, DuPont received permission from the State of Louisiana to solidify the waste and dispose of it in a land fill near Sellars Canal which connects with the Barataria estuary.

Although DuPont maintained that the waste was rendered inert and non-toxic by solidification, subsequent tests by a water chemist at a local treatment works indicated that the material would leach heavy metals and potentially toxic organic chemicals into the environment. Beryllium, chromium and aluminum were found in high concentrations in the waste, although DuPont did not mention the presence of these chemicals in its reports to the state.

Had the proposed amendment been in effect at the time, DuPont could have dumped the solidified toxic substances into the nearest convenient bayou or non-navigable stream, without testing or regulation.

Beryllium and chromium are known carcinogens, while aluminum is toxic to fish in low concentrations.[11] Tests by DuPont scientists indicated that organic chemicals (or chemical oxygen demand) would leach from the "chemfixed" fill material at concentrations 5 to 10 times that found in domestic sewage.

6. HCB's in Louisiana.

In the aftermath of the discovery of excessive levels of HCB (hexachlorobenzine) in adipose (fatty) tissue and milk of cattle in southern Louisiana, a field survey was conducted to determine the level of HCB in the environment. Samples were taken of levee soil and bottom sediments in ditches bordering the Mississippi River. HCB levels in soil and sediments varied up to 425 and 875 ppb, respectively.

Again, if discharged as "fill material" in wetlands or non-navigable waters, HCB would not be subject to testing and regulation under the proposed amendment. A question exists as to whether the amendment would exempt discharges such as that which apparently occurred in Louisiana.

HCB is a biologically-active chemical which can disrupt normal biochemical processes, causing disease or death in man and other fauna. Enlarged livers and thyroid, blistering of the skin, hyperpigmentation, and excessive hair growth were observed in humans who had consumed food contaminated by HCB. Chronic exposure to low levels of HCB results in the alteration of cellular structures in the liver, thyroid, adrenals and bone marrow. HCB has also been shown to induce the formation of abnormally-high levels of enzymes which alter metabolism by the liver of many substances.[12]

7. Taconite in Lake Superior.

For years, the Reserve Mining Company has discharged tons of taconite tailings into Lake Superior, the drinking water supply for Duluth, Minnesota. A Federal court has ordered Reserve to find another method of disposal of its solid taconite, in the latest round of a case which has become legendary. It takes little imagination to posit that solid taconite "fill material" could be dumped into wetalnds or non-navigable waters where they could be carried into Lake Superior—except, under such circumstances, it would not be prohibited by the FWPCA.

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[10] Ahmed, A. K., *Environment, 18*, 6–11 (1976).
[11] NAS, 1972, "Water Quality Criteria."
[12] Coniglio, W. A., "Hexachlorobenzine (HCB) : A Man-Made Pollutant," EPA, July 1976.

Taconite contains asbestos, a known carcinogen in man when inhaled and suspected of carcinogenicity when ingested.[13]

8. Kepone in the James River, Va.

Allied Chemical Co. and Life Sciences Corp., the latter now defunct, have been indicted on over 1000 counts of violating Federal water pollution control laws, including the FWPCA and the 1899 Rufuse Act, for allegedly discharging kepone into Bailey's Bay and Gravelly Run, both of which are connected to the James River. Apparently, most of the kepone was discharged through an effluent pipe into Gravelly Run, but some solid kepone was discharged on lands adjacent to marshes that abut Bailey's Bay in such a manner that it inevitably was carried into the water by rain.

It is questionable whether the discharge of solid kepone at Hopewell would be subject to regulation under the proposed amendment. Ironically, if the amendment had been in effect at the time, the solid kepone "fill material" could have been discharged directly into Gravelly Run without fear of prosecution.

A National Cancer Institute test has indicated that kepone produced oncogenic effects in both sexes of rats and mice. Data submitted by Allied Chemical itself indicates that kepone is oncogenic in rats. A notice of cancellation of this pesticide was published by EPA on June 17, 1976, indicating concurrence and voluntary compliance. First registered in the 1950's, kepone did not cause immediate harm on contact like other chlorinated hydrocarbons. Its long-term effects were first discovered in the 60's when tolerances were sought. These effects include accumulation in mammalian tissue, induction of tremors, hyperactivity, muscle spasms, and sterility in laboratory animals. All of these effects have also been induced in humans—namely, in workers at the Hopewell kepone plant.

Each of the foregoing examples represents an instance where toxic substances, in a form which would be considered "dredged and fill material," have been discharged (or with a slight modification of the facts, could have been or may be discharged) into wetlands and waters of the United States not subject to Federal jurisdiction under the proposed amendment to Section 404 of the FWPCA. That such instances have occurred is evidence enough to demonstrate that the loophole created by the Wright amendment could be used, either negligently or deliberately, to subvert the intent of the Federal water pollution control laws.

Ultimately, this hastily-conceived amendment would lead to the absurd result whereby toxic substances, in the form of dredged or fill material, would be regulated if discharged into the navigable, yet highly-polluted Potomac estuary, but could occur with impunity if discharged in the non-navigable upper Potomac just above the water supply for Washington.

Respectfully,

Dr. Robert H. Harris, Ph. D.,
Co-Chairman, Toxic Chemicals Program.
Edward Thompson, Jr.
Washington Counsel.

Baton Rouge, La., *July 21, 1976.*

President Gerald R. Ford,
The White House, Washington, D.C.

Dear Sir: I am very concerned about the delay in implementation of the guidelines under Section 404 of Public Law 92–500, the Water Pollution Control Act Amendments of 1972. Congressional action aimed at amending Section 404 is premature at this time because the Act contains a provision for full re-evaluation next year.

I support the objectives of P.L. 92–500, and believe it should be given a fair chance to succeed. Your action suspending Phase II of the wetlands protection program means that the objectives of the Act are not being given a fair chance. I strongly urge that you rescind your action.

Sincerely,

Doris Falkenheiner.

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[13] IARC Monograph, 1973, "Evaluation of Carcinogenic Risk of Chemicals to Man," 2, 26; Cunningham, H. M. and R. Pontrefact (unpublished), 1974.

FEDERATION OF FLY FISHERMEN,
Davis, Calif., July 22, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
United States Senate,
Washington, D.C.

DEAR SENATOR RANDOLPH: The Federation of Fly Fishermen is an international confederation of 160 fly fishing clubs and similar organizations, mostly in the United States where they are formed into nine regions, as well as thousands of individual members in several classes.

We are seriously concerned about the need to preserve wetlands as discussed in some detail in the attached copy of C-72-3, "The Urgent Need To Preserve Saltwater Estuarine And Wetland Resources". While this paper discusses saltwater wetlands we are equally concerned about the need to also preserve freshwater wetlands.

Wetlands in their original natural state are one of our nation's most productive and thus extremely valuable resources. The value is in their essentiality to fisheries and other wild as well as domesticated creatures and plant life upon which our people have great dependence for food and fiber as well as recreation opportunity.

We are concerned that your committee's proceedings on July 27 and 28 may not constitute full hearings with opportunity for all so wishing to be heard. Any amendment of Section 404 of the Federal Water Pollution Control Act of 1972 based on testimony from only a limited and especially selected list of witnesses would be objectionable to us. Such amendment would obviously be subject to future dispute.

Further, we fully share the view that the existing provisions of Section 404 should not be weakened by the so-called "Wright-Breaux Amendment" in section 16 of S. 2710. We believe that this amendment would substantially impair federal protection of wetlands and therefore ask that it be stricken from S. 2710.

We request that this letter be included as part of the record of your July 27 and 28 proceedings on this matter. Thank you.

Sincerely,

RAY W. FISHER,
Conservation Chairman, Federation of Fly Fishermen.

Attachment.

THE URGENT NEED TO PRESERVE SALTWATER ESTUARINE AND WETLAND RESOURCES

The extent to which estuaries and wetlands along all coastlines of the United States have been either damaged or entirely destroyed (by their worst enemy, man himself) is *A GREAT AMERICAN ENVIRONMENTAL TRAGEDY*. The degree of losses of such resources already incurred staggers the imagination when examples such as California's are contemplated—along its 1,100 mile coastline "about 67 percent of California's original saltmarshes and tide-flats have already been filled or otherwise destroyed" (California Department of Fish and Game report "The Natural Resources of Bolinas Lagoon, Their Status and Future"). "About 67 percent of Southern California's wetlands have been lost to dredging, filling and other alterations which have removed them as wildlife habitat. Of the remaining wetland acreage, 42 percent is threatened by existing plans for development and utilization of these wetlands" ("The Status of Coastal Wetlands in Southern California" by John W. Speth, Department of Fish and Game to annual meeting of California-Nevada Section of the Wildlife Society). "San Francisco Bay continually faces the dilemma of conflicting private and public interests. The Bay is our greatest natural resource, influencing our climate, sustaining wildlife and vegetation, providing beauty and recreation for those who live near its shores. But, with continuing urbanization, industrialization and added population pressures, the Bay is also a desirable source of revenue to subdivision developers, freeway planners, garbage dumpers and municipal governments seeking added land for industrial sites to add to their tax rolls. It is already too late to correct the mistakes caused by a century of greed, shortsightedness and apathy. BETWEEN THE DEVIL AND THE DEEP BLUE BAY is a warning and a plea for action—now—before the process of destruction of San Francisco Bay is irreversible". ("Between the Devil and the Deep Blue Bay, the Struggle to Save San Francisco Bay" by Harold Gilliam).

"Most Americans are only beginning to recognize their close bonds with the natural world. A sign of this is found in changing attitudes toward swamps, marshes, and tidal estuaries. Until recently, these wetlands, cherished only by sportsmen and naturalists, generally were considered worthless until drained or filled. Unfortunately, too many people still consider that their highest economic use is to serve as dumping grounds for the solid and liquid wastes of cities and industries. The effects of this negative attitude have been apparent to sportsmen and wildlife scientists for many years. Marshes that once teemed with songbirds, shorebirds, waterfowl and a variety of mammals, their waters clouded by noxious bacteria and algae, now support little but starlings and rats. Many wetlands have disappeared completely under the avalanche of human expansion. Today's outcries of concern make clear that people are seeking effective ways to halt the accelerating destruction of their environment. Unspoiled tidal marshes rank in economic productivity above the best prairie croplands. Marsh-rimmed estuaries are vital to the more important commercial marine fishes and to crabs, shrimps, and shellfish. Continued destruction of tidal wetlands threatens a major source of human food and the livelihoods of many people" (from Wildlife, The Environmental Barometer, By Conservation Education Division, California Department of Fish and Game).

"The natural environments of our Nation's bays, estuaries, and other water bodies are being destroyed or threatened with destruction by water pollution, alteration of river courses, land-filling of the shallow and marshland areas, sedimentation, dredging, construction of piers and bulkheads, and other manmade changes. Many Federal agencies participate in, or authorize work and activities which contribute to the destruction of these water areas, and some agencies have specific responsibilities for preventing such destruction and pollution" (House of Representatives, Report No. 91–917, March 18, 1970, "Our Waters and Wetlands: How The Corps of Engineers Can Help Prevent Their Destruction and Pollution"). The headlines of an article by William E. Barrows, staff reporter of the Wall Street Journal read, "*NATURE'S NURSERIES.* Filling, Draining, Polluting, Stir Fights In Many Areas; Developers Seek Marshes. Changing The Maine Coast". In this article regarding the town of Wells, Maine, he further comments, "This town has about everything a resort on the Maine Coast should have: Abundant sunshine, clean beaches, good sport fishing and the clams and lobsters that are among Maine's most prized assets". And he describes the concern of conservationists who regard salt marshes as "nurseries of the sea (because) they provide spawning and nesting grounds for birds, fish and mollusks that may live out most of their lives far away. It is calculated that two-thirds of the ocean's sport and commercial fish either begin their own lives in wetland areas or feed on other creatures spawned in wetlands".

Florida is famed for such saltwater wetland resources which have been seriously diminished by the conversion of estuaries and wetlands into residential marinas and kindred developments which usually require major environmental alterations. Regarding the city of Naples which has resisted such development, Phillip D. Carter reported in The Washington Post, ". . . for years, Naples' most celebrated attraction has been its immediate natural surroundings, particularly the shallow bays and mangrove islands that stretch southward along the coast. Within minutes of leaving dock, a sportsfisherman can be contentedly casting for snook along an unspoiled coastline that has changed little since the time of the Indians". John Fogel, in his "Our Polluted Waterways" article in Prevention Magazine describing his one-man kayak trip from New York City to Miami Beach comments, "Drain, dredge, dump, fill and build must be the words developers live by in places like Avalon, N.J.; Rehoboth Beach, Del.; and Hollywood Beach, Florida". "The Hudson (River) is an integral part of an extensive and productive ecological system embracing coastal waters of Northern New Jersey, the bays and harbors surrounding New York City and the north and south shores of Western Long Island. Historically, the Hudson has enriched this whole system and served as the primary spawning and nursery area for anadromous species—sea fish that breed in rivers" (from affidavit by John Clark in support of petition, Index No. 9565/71, Scenic Hudson Preservation Conference, et al, against State Commissioner of Environmental Conservation, Respondent, and Consolidated Edison Company of New York, Inc., et al, Intervenors, in Supreme Court of the State of New York). The aforementioned suit in the New York State Supreme Court relates to Consolidated Edison's proposed Storm King pumped storage project to service an atomic power plant they have planned.

The number of examples of estuarine and wetlands problems is so great it would require volumes to adequately comment on them. There are myriads of reports in the various news media—newspapers, magazines, radio, television and other forms—hardly a day goes by in any area but what there is some publicity on estuarine resources problems. These problems should concern all fishermen, because of their deleterious effects on the sports fisheries we depend upon. Based on the broader view, our concern should go beyond our selfish interest in our sport and should include concern about adverse effects on the total environment essential to production of the food which sustains our very lives. It is more than a question of sites which afford pleasant and restful recreation. The problems raise the question (and challenge, too) of what we should do to help hold the tide against further deterioration and destruction of these precious resources. As individuals and through our local clubs and regional councils we should demonstrate our serious concern by becoming involved in objective efforts to preserve our nation's estuarine and wetlands resources. Those of us who live on or near the seacoast have a unique opportunity to get directly involved while those of us who live in the interior regions can provide backup support in various ways.

In general, most of the issues have already been joined by other organizations and our involvement can therefore be that of providing auxiliary support. However, there can yet arise some situations in which the Federation member, club or regional council identifies the problem and can initiate the action in which case auxiliary help can be sought from others. Coalitions or "umbrellas" of joint action by a number of interested organizations provide more "muscle" and are usually the best means of getting officialdom and other responsible entities to take required actions. The Washington Environmental Council is a prime example of the effectiveness of such an "umbrella" in which their multi-organizational pressure resulted in enactment of the Shoreline Management Act in 1971 and caused alternative Initiative 43 to be placed on the ballot of the 1972 state general election for approval or rejection by the voters. In California, where it now appears that the two-house coastline preservation bill (SB 100/AB 200) may be defeated in the legislature, the California Coastal Alliance coalition is in a petition campaign to place a coastal initiative measure on the November 1972 ballot.

There are many local situations which can be supported such as the Save San Francisco Bay Association efforts which include national legislation (H.R. 12143) to create the 23,000 acre San Francisco Bay National Wildlife Refuge which, incidentally, is endorsed by Nathaniel P. Reed, Assistant Secretary for Fish, Wildlife and Parks of the Department of the Interior. And the Friends of Upper Newport Bay movement in Southern California. There is national legislation which can be supported by you wherever you are in the United States—S. 3507, the "Magnuson Coastal Zone Management Act of 1972" whose aim is to "preserve, protect, develop, and where possible to restore, the resources of the Nation's coastal zone for this and succeeding generations." The opportunities for you to do your part, whether they are local, regional or national issues, are many and all it takes is for you to recognize them and to get into the action. Get into the action—today, for tomorrow may be too late.

FIELD & STREAM,
New York, N.Y., July 26, 1972.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 5121 Dirksen Senate Office Building, Washington D.C.

DEAR SENATOR RANDOLPH: I understand that hearings on amendments to Section 404 of the Water Pollution Control Act of 1972 will commence tomorrow before your committee. Please know that while most of the 8 million readers of *Field & Stream* view the U.S. Army Corps of Engineers as little better than the Plague, we feel that any attempt to weaken their role as partial administrators of the Water Pollution Control Act will destroy the spirit and intent of this important legislation. Our wetlands must be saved, even if it also means spending much time and money educating vandals to become policemen. Keep Section 404 the way it is! For more details on our position, please read and enter on the hearing record the *Field & Stream* Conservation Column for May entitled "Things You Should Know About".

Sincerely yours,

GEORGE REIGER.

Enclosure.

Carroll Young stopped by my farm the other afternoon to discuss plans for enlarging the fish and wildfowl pond. Carroll is a dejected man these days, and he feels his hard times are largely attributable to people like me. He knows I'm a conservation writer, but he doesn't come right out and blow off steam in my face. Still, he does blame environmentalists for the tough time he has making payments on the heavy, earth-moving machinery he bought during the flush, pre-energy-crisis period of the late Sixties and early Seventies.

Carroll is a master bulldozer operator, and his father is a marvel of rhythm and motion on the drag-line. In 1972, the two of them worked as a team to build my pond with a small part of the cost paid by the Department of Agriculture's (DOA) Rural Environmental Assistance Program. Carroll and his father completed the work in record time, first, because they are highly competent, but mostly because there were a lot of other jobs waiting to be done. Now there are not so many.

"The federal people first told us we couldn't dredge any more salt marsh," he said as we walked along the pond dike. "Now we can't dredge upland swamps. Between the two, that's about half my business." Carroll gave me a quick glance. "I guess conservation is a good thing for some, but it's just about going to bankrupt me."

There are many developers and machine operators like Carroll Young bewildered and hurt by legislative changes affecting old attitudes toward land use. Some are fighting to regain their right to do anything with the land that makes the greatest monetary profit from it. They do not perceive any other values in land but money, and they find the words of Aldo Leopold, if they know them at all, to be nothing but sentimental claptrap.

Writing in the *Journal of Wildlife Management* in 1943 (Vol. 7, No. 1), Leopold observed that "the conquest of nature by machines has led to much unnecessary destruction of resources. Our tools improve faster than we do. It is unlikely that economic motives alone will ever teach us to use our tools gently. The only remedy is to extend our system of ethics from the man-man relation to the man-earth relation. We shall achieve conservation when and only when the destructive use of land becomes unethical—punishable by social ostracism. Any experience that stimulates this extension of ethics is culturally valuable. Any that has the opposite effect is culturally damaging."

Traditionally, the U.S. Army Corps of Engineers has been preoccupied with man-man relations. As the largest and most powerful engineering firm on earth, it has seen its first obligation as that of the nation's handmaiden in the development of commerce and heavy industry. Sadly, few of the colonels in charge of the various regional corps headquarters have read Leopold—have learned that there is a critical cultural value "in any experience which reminds us of our dependency on the soil-plant-animal-man food chain. Civilization has so cluttered this elemental man-earth relation with gadgets and middle-men that awareness is growing dim. We fancy industry supports us, forgetting what supports industry."

Promotions from colonel to general have all too often depended on completing the most or largest projects possible for an assigned area. Cost was no object. In fact, the more people employed for a longer period of time, the happier local politicians are with their district commander. In a University of Wisconsin study of 147 Corps projects, it was found that—environmental considerations aside—fully half the projects should not have been built on economic grounds. Furthermore, taxpayers never finish paying the maintenance costs on most public projects. Somebody must paint the bridges, man the locks, and redredge the channels—*eternally*.

In a recently proposed enlargement and realignment of the "Delaware Bay-Chesapeake Bay Waterway in Delaware, Maryland and Virginia," the Corps of Engineers came up with a rosy projection of how many "benefits" this alleged recreational boating waterway will bring to the states involved. Rather than acknowledge that the Corps has repeatedly failed over the past half-century to dredge permanent channels parallel with the barrier islands so as to shorten the north-south inland waterway route between New York and Florida by half a day (shades of the SST time-saving flights between Paris and New York!), the Engineers' Draft Environmental Impact Statement says "no maintenance dredging costs are included in the annual charges for the purpose of developing the Benefit/Cost Ratio, as the net reduction in maintenance dredging is included as a benefit. Also, the maintenance cost for Aids to Navigation, maintenance of structures, and land costs are reduced to reflect only the difference in cost between the proposed project and continuation of the existing projects."

This nifty bit of economic casuistry means that with all realistic maintenance costs excluded (heck, half the channel marker lights along the present waterway don't work anyway!), the Corps' mathematicians can concoct an annual benefit of over $1 million a year for the "new and improved" waterway. Furthermore, by not accepting the fact that boating along the Atlantic coast of the Delmarva (Delaware, Maryland, Virginia) peninsula has *for over three centuries* meant shallow-draft skiffs and scows sailing from coastal ports through *natural* channels and inlets to the fishing grounds beyond, the Corps is able to justify another assault on nature for the good of industry.

For what Eastern Shore fisherman really believes the Corps is "improving" a multimillion dollar ditch for his benefit? Salisbury, Maryland is slated to be the Delmarva headquarters for offshore oil development in the Baltimore Canyon, and the Delmarva waterway is scheduled to be the principal coastal link between the heavy industrial base under construction at Cape Charles, Virginia, and the petrochemical industries already situated in Delaware and New Jersey.

Yet the Corps disguises the project as a boon to flounder fishermen! While averring that the waterway will be too shallow for industrial barge traffic through "most" of its length, the Corps does not rule out future deepening of the channel to accommodate larger shipping. By that time, Army engineers will have figured out a way to describe "new maintenance costs" as "old maintenance costs," hence making them part of a "net reduction," alias "benefit."

In any fight with the Corps, citizens quickly discover they have few friends in Congress. In fact, the Corps and the Congress are so intimately linked on most waterway projects, be warned that you will probably give away any plan you may be developing for legal action by writing your representative appealing for his assistance. This is an awful note to share with my more idealistic readers, but I am able to speak from painful and personal experience.

Arthur E. Morgan, engineer and first chairman of the Tennessee Valley Authority (TVA), once observed "when a congressman dares to oppose a proposal of the Corps, he may find himself, as some of them have made public, bombarded by protesting letters from members of the Rivers and Harbors Congress." This latter group, euphemistically renamed the Water Resource Congress, is made up of Corps' lobbyists and sponsors including land speculators, contractors, and retired Army engineers. They represent one of the most powerful lobbies in Congress, a power symbolized by the fact that the Corps is one of the few federal agencies with permanent "advisors" on Capitol Hill.

To date, courts of law have been the conservationists' best and only ally. Despite Army protests, the U.S. Supreme Court ruled in 1960 that the Refuse Act of 1899 authorizes the Corps to regulate the environmental effects of dumping in navigable waters. Unfortunately, all through the Sixties, the Corps continued to duck its responsibility by insisting it was too understaffed to be both empire builder *and* policeman.

Besides, considering the many cozy relations the Corps had established with certain industries, just think how embarrassing it would have been for the Army to sue friends and good ole boys for violating some quaint 19th century law! So what if some of the stuff being dumped is in violation of the 1899 Refuse Act and is capable of killing men, as well as fish and wildlife? Which is more important: Healthy but unemployed people, or jobs that are created in burying the dead?

When the National Environmental Policy Act (NEPA) was created in 1969, the Corps once again tried to duck its environmental protective responsibilities. And once again, a legal suit was required to force the Corps to comply with the law. However, the spirit of the law and the letter of the law are apparently two different matters to some Corps' senior officers, for the permit program quickly eroded to the point where some district offices appeared to be outdoing others in issuing nonrestrictive permits. In the old days, developers and industry did as they pleased without the paperwork. Today, some Corps' districts seem to be *licensing* developers and industry to do as they please!

This may be why Congress permitted Section 404 of the Water Pollution Control Act of 1972 to become law. This vital section for the first time provides the Corps with regulatory authority over not just "navigable waters," but *all* waters of the United States. The new law clearly commands that any future development respect the integrity of wetland resources, and the Corps of Engineers along with the Environmental Protection Agency (EPA) are charged with examining wetland development plans and issuing permits to alter wetlands only after every possible alternative has been explored. One wonders how many Congressmen approved Section 404 with the thought that greater authority for the Corps would mean even greater freedom for the developer?

For its part, the Corps reacted like a scalded cat. Last May it issued a misleading press release claiming that "under some of the proposed regulations, federal permits may be required by the rancher who wants to enlarge his stock pond, or the farmer who wants to protect his land against stream erosion." Farm and livestock journals and regional outdoor publications swallowed the bait—hook, line, and sinker! Angry letters poured into Corps' headquarters denouncing the new act. The Corps' propagandists suavely replied that the best way to amend the situation was to persuade Congress to gut the law.

So the battle was rejoined: Environmentalists on one side who hope to see the Corps wearing a new white hat, and certain regional Corps officers and developers on the other side who are very happy, thank you, with the fit of the scruffy old Corps black hat. In the middle crouch veteran conservationists, scarred from countless skirmishes with the Corps, who firmly believe that there is no room for compromise.

Despite the assertions of these old-line conservationists that the only hope for Western Civilization is the abolition of the Corps of Engineers, Tom Barlow of the National Resources Defense Council argues persuasively that reform is possible and the only answer: "There are no other horses in sight. Either we tame the Corps and teach it to serve conservation, or it will continue to gallop roughshod over the entire environment."

On the sidelines of the battlefield are those many benighted souls who came to worship at the post-War altar of the second home. Last January, public hearings were held in Virginia to review a developer's "right" to fulfill the promises he had made to buyers of lots to destroy productive salt marshes and coastal lowlands and replace these with consumptive golf courses and marinas. The First Charter Land Corporation (alias, Captain's Cove) pleaded before Colonel Newman A. Howard, Jr. of the Norfolk District Corps office, but in reality its plea was pitched to the angry parcel-of-land owners who demanded their "rights" to have the fantasy they bought on time come true. When a local waterman testified that he had poled his boat across the development area on more than one storm tide, the landowners booed and hissed him into silence. No man likes to be told he has bought a pig in a poke.

First Charter Land Corporation has already pleaded guilty to four violations of 33 U.S.C.A. section 403 and one violation of 33 U.S.C.A. section 407 and paid the fine. Now this same corporation hopes to do on a grand scale and legally under the permit program what it illegally started with only 108 acres. In all, the Captain's Cove development hopes to modify or destroy 1,865 acres of marsh and coastal lowlands. The logic seems to be: "We were caught robbing the bank by breaking and entering. Maybe we can get away with more money by passing the teller a note!"

Will the Corps issue this developer (and others like him) permits to destroy the last of our nation's wetlands? Or will the Corps persuade their friends in Congress to waive its authority in all such matters? The Corps' new role as wetlands guardian is currently under review by the Congressional Public Works Committee. I hope you'll take time to remind your representative that elections are coming up and that you'll be very unhappy with him if he does not stand behind the Water Pollution Control Act, and especially Section 404, as an ally somehow reminds me of our alliance with the Soviets in World War II. It is a dubious pill to swallow. However, we must give the organization this one last chance to demonstrate that man-earth relations mean just as much to it as man-man relations.

Footnotes

For the record, people like me who want to enlarge farm ponds or remove debris from drainage ditches are in no way hindered from doing so by Section 404 so long as we're not tampering with the integrity of natural wetlands. Furthermore, we wish the Carroll Youngs of this continent success, but we trust they will use their considerable skills with tractors and cranes to build more duck factories, not drain the ones that Nature has provided without Benefit/Cost Ratios.

In a related matter, the Wildlife Management Institute, the National Audubon Society, and the National Wildlife Federation have charged that DOA's annual $175 million Agricultural Conservation Program (ACP) is often used to boost production and private profit rather than protect or enhance natural resources. Instead of focusing on fish and wildfowl pond construction, for example, ACP funds are being used to uproot windbreaks and shelter belts along the edges of fields, to channelize waterways under the guise of "streambank protection," and to build livestock fences that should rightly be considered part of a rancher's

working expenses. Perhaps most shocking of all is the extensive aerial spraying of rangelands with herbicides in many Western states. Wiping out vast areas of natural wildlife habitat so cattle can be pastured on the new growth is illegal funding under a federal program called "agricultural conservation." So while you're writing your representative about the Corps' responsibility under Section 404, why not add that you'd like to see the word *conservation* restored to Agriculture's ACP?

Finally, Wes Sandall of Bassett, Nebraska, needs our help to fight another dumb show of the ever-destructive Bureau of Reclamation. In recent years, the Bureau has been trying to outdo even the Corps of Engineers in the realm of terrifying projects calculated to exterminate wildlife and uproot people. BuRec's Nebraska nightmare includes the channelization of one entire county and the Niobrara River. If you can help, contact Sandall at (402) 684–3468. And beware any government agency bearing "benefits!"

FISHING WORLD,
Floral Park, N.Y., July 16, 1976.

Senator HOWARD H. BAKER, Jr.,
Public Works Committee,
U.S. Senate, Washington, D.C.

DEAR SENATOR BAKER: As editor of the nation's largest magazine for sport fishermen, permit me to encourage you and your colleagues on the Public Works Committee to retain in full strength Section 404 of the Water Pollution Control Act. Maintaining the Corps of Engineers' authorization to provide increasing federal protection to wetlands is critically important.

The Commerce Department's National Marine Fisheries Service estimates that 30,000,000 saltwater recreational fishermen annually spend $1.25 billion angling for a catch of edible finfish that equals the U.S. commercial catch. And more than 25 of the most important commercial species of finfish, crustaceans and mollusks are dependent on estuaries at some stage in their development.

Freshwater wetlands are a comparably important sanctuary for the fishes that provide our huge inland angling and commercial catch.

There will be little point in regulating commercial fishing out to the 200-mile limit if we continue destroying the nursery grounds.

Sincerely yours,

KEITH GARDNER, *Editor.*

[Mailgram]

FLORIDA AGRICULTURE WATER COUNCIL,
Orlando, Fla., July 22, 1976.

Senator JENNINGS RANDOLPH,
Washington, D.C.

The Florida Agriculture Water Council respectfully encourages your active support in passage of S. 2710 (Breaux-Wright amendment) for the protection of States rights, prevent Federal land use control, and stop bureaucratic regulations and court decisions from usurping congressional authority. Request this notice be made a part of the official hearing record.

W. E. CLEMMONS.

ATLANTA, GA., *July 26, 1976.*

DEAR MR. RANDOLPH: I am writing this letter to voice my disapproval to the Wright Amendment of H.R. 9560.

Please record this letter for the hearing.

Sincerely,

GROFF FUCIL.

STATEMENT BY FOREST FARMERS ASSOCIATION ATLANTA, GA.

Forest Farmers Association, an organization of timberland owners, and primarily small, nonindustrial owners wishes to present its views on Section 404 of the Federal Water Pollution Control Act Amendments of 1972 and 1976, and especially implementation of Phase II, originally scheduled to be effective July 1, 1976. Our group represents ownership of over 25 million acres of commercial timberland in 15 southern states, with members in virtually every timbered county in the area.

Our Association strongly opposes implementation of Phase II of Section 404 and the interim final regulations proposed by the U.S. Army Corps of Engineers; and favors acceptance by the Senate of the House-passed Wright amendment included in the Federal Water Pollution Control Act Amendments of 1976 (H.R. 9560), or similar corrective action.

Phase II regulations, as understood by our Association, would expand Corps jurisdiction to millions of additional farm and forested areas. It would enlarge the definition of "navigable waters" to all natural and artificial bodies of water, five acres and larger; plus tributary streams flowing five cubic feet a second or more, and adjacent wetlands. An extensive permit system would be required before many forestry-related activities, requiring dredges or fills, could be performed.

Forest Farmers Association vigorously opposes Phase II implementation for the following reasons:

(1) The Corps' regulations would have an important and highly detrimental effect on timber growing and forest development in the South. This is particularly true as regards the approximately two million private, nonindustrial timberland owners in the South, who own approximately 70 percent of the region's commercial forest land.

(2) A general permit system, as sometimes advocated by the Corps, is subject to legal challenge, and an individual permit system would be tremendously involved and, virtually unworkable. Even the Corps, tacitly, admits this. Individual permits could cost the owners $10 to $100 each and could take from several weeks to several years to process, by their own estimate. At the Baton Rouge hearings General McIntyre stated as a rough estimate it might take some 2,000 or more employees and $50 million or more, annually, to handle the program by the time it reached Phase III.

(3) Forest Farmers Association feels that it was not the intent of Congress to assert federal jurisdiction over the nation's waters to the maximum extent proposed by subsequent Court rulings and the Corps of Engineers' interim final regulations, as they stand.

(4) It appears that these regulations as published, perhaps, reflect greater response to demands for wetlands preservation rather than the stated purpose of the FWPCAA of 1972—improvement of water quality. If certain environmental groups feel that greater protection of wetlands is desirable, our Association feels they should opt for national wetlands legislation, rather than seeking to achieve that end through the backdoor, using FWPCAA of 1972 and other water quality legislation. The same goes for federal land use control legislation, which died in Congress last year.

(5) Our Association strongly opposes Phase II implementation as it would restrict important silvicultural and forest management activities, even while stating these activities are exempt. Specifically referred to are such forestry-related activities as woods road building, ditching, bridge construction, etc. Timber, in addition to being a renewable resource is a basic, life-support, consumer product. Unrealistic restrictions placed on timber production will only serve to reduce supplies and force prices up. All this while the federal government, itself, is predicting future timber shortages and implementing incentives programs to grow more trees.

(6) Section 101(f) of the Federal Water Pollution Control Act requires that regulations minimize the amount of paperwork and delay involved in achieving the purposes of the Act. Yet, the five major steps now required seem to defeat this:

(a) The application itself will require considerable time and expense to prepare and process, and will cost the landowner anywhere from $10 to $100;

(b) Public hearings, at the applicant's expense, could add as much as three months to the delay;

(c) Section 401 certification requirements could entail another three months;

(d) Certification of compliance with Coastal Zone Management requirements might take six months; and

(e) An Environmental Impact Statement might be required—an additional major burden on the applicant which could add up to six months to the process.

It is not difficult to imagine that the entire process could require one or two years to complete. Experience with other Corps of Engineers' permits makes this seem not unreasonable.

(7) Time is often of the essence in forestry operations. Forest managers must be able to take advantage of favorable weather and soil conditions, as well as markets. Weather controls site preparation, planting, insect and disease protection

and salvage, as well as harvesting and road building. Flexibility is essential to proper forest management. A delay of one month for many forest operations can result in forest land lying idle for an entire growing season. Furthermore, there are approximately two million small, private owners in the South, alone. Little consideration appears to have been given to the sheer volume of paperwork which would be generated by such a permit system. Applications could literally run into the tens of thousands in our area, alone.

(8) U.S. Assistant Secretary of Agricultue for Conservation Robert W. Long has indicated that these new regulations pose the threat of "unnecessary Corps red tape" which would hold up work on USDA programs to help rural communities repair flood damages and restore land and streams by forcing civilian agencies to apply to the military for work permits. It is also conceivable that the federal Forestry Incentives Program, which has begun to make progress in stimulating development of southern forestry, could be offset by making forest management unprofitable for many small forest landowners.

(9) The regulations are complex and ambiguous, which makes it difficult for the landowner to determine which landmoving operations may require permit application.

(10) The potential for veto of an approved application by several agencies represents an unnecessary complication of the application process. Experience indicates that requirements to satisfy several different agencies almost always results in substantial delays, confusion, and red tape.

Forest Farmers Association feels that the Wright amendment or similar corrective legislation, which stops Corps of Engineers' regulations at Phase I, and truly exempts forestry-related activities is highly important. Our organization feels the Wright amendment would achieve this objective with an expression of clear legislation intent, defining forestry-related activities to include road building, ditching, bridge construction, etc. With such clarification the Wright amendment or similar legislation would provide an acceptable compromise which more truly reflects the intent of Congress.

The Committee's consideration of these views is invited and will be appreciated.

OCEAN CITY, MD., *July 21, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR: As I write this letter I'm overlooking the last remaining section of wetlands in Ocean City, Md. It's about three city blocks in size and with one glance an amateur birdwatcher's eye can count a dozen species—willets, barn swallows, red wing blackbirds, laughing gulls, blue herons, snowy egrets. Horseshoe crabs and channel crabs, mussels, and turtles also make this small remainder of Ocean City's former self their home and breeding ground.

Paddling through some shallows last week I was surrounded by young croakers who made the water virtually boil with their jumping to escape my intrusion.

Bordered by houses on two sides and twenty story condominiums on a third this saltmarsh area of bayberry and spartina grasses is a city in itself. Home to more phylum and specie of animal than the remaining ten odd miles of miles of concrete and asphalt it is an area that man cannot live without. After all—what would man's life be like with no birds in the air or fish in the bays?

Saltmarshes, the second most productive growing area in tons per acre, must be kept as they are and we need a strong Section 404 program to do it.

I support the Hart amendment to the Clean Water Act now numbered S. 2710. The Wright-Breaux amendment which excludes most wetlands and cuts back controls over the nation's waters is ill conceived, inadvertently prepared and premature.

I feel that the Hart amendment (S. 2710) is good not only so I can count birds from my balcony, but so my children, my children's children and so on can have the same pleasure as I in watching downy willets follow their mother through the tall grass along the waters edge.

The testimony of the seven "private witnesses" scheduled for July 28 is obviously biased against continuing phases II and III of the 404 program.

To get an impartial opinion on the matter would be nearly impossible but witnesses should be equally called on both sides of the matter, not five opponents and two proponents as it is now scheduled.

There are four additional points I would like to make:

(1) It is premature to amend Section 404; no hearing should be held nor amendments considered until after the full three-phase program has gone into effect.

(2) The proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment because it would address those issues mistakenly raised by those who oppose further regulation under the section; it would write into law the exemptions and general permit program already set for phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year.

(3) Wetland areas are valuable for their capabilities to break down and remove quantities of pollutants such as nutrients and organic wastes from their tributaries, to store flood waters and to feed and nurture the lower end of the food chain.

(4) The House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's narrowed definition of "navigable waters."

Sincerely,

THOMAS AND ROBIN GALLOWAY.

P.S.—I would like this to be included for the record of the hearing of July 27, 28, 1976 on Section 404 of the Clean Water Act.

GENERAL DEVELOPMENT CORPORATION,
August 4, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: General Development Corporation is the largest community developer in Florida, and possibly in the southeastern United States. We are currently developing seven major communities which now have more than 60,000 full-time residents. We are interested in the full range of problems which affect community development because our activities include residential, commercial, and industrial development.

As a development company, our activities are heavily impacted by environmental regulation. One of the major laws with which we must comply is the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500). PL 92-500 is a very broad and all inclusive act designed to address the question of the quality of the Nation's waters. As stated in the opening sentence of this act, the act seeks to, "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

As one means of attaining this goal, the act prescribes in Section 404 that the Secretary of the Army may issue permits regulating the discharge of dredged or fill material into the navigable waters of the nation. Because PL 92-500 is a bill which seeks to address the problem of water quality, a number of important cases have ruled that federal regulatory jurisdiction under the Act must reach further than the traditional limits of navigability. Until the U.S. District Court for the District of Columbia required the U.S. Corps of Engineers to extend its jurisdiction above the mean high water line, there was a period of uncertainty for private business which made it difficult to plan because of the conflict between the policies of the U.S. Corps of Engineers on the one hand and the Environmental Protection Agency on the other hand. With the promulgation of the interim final regulations under Section 404 by the U.S. Corps of Engineers, substantial resolution of this conflict was achieved. This development in turn made planning for our industry more predictable, whatever else members of the industry might feel about the necessity of having to obtain permits under the new regulations.

What is important to keep in mind is that, in issuing its Section 404 regulations, the U.S. Corps of Engineers was doing what it was required to do by PL 92-500. The Corps did not march into this new area of jurisdiction arbitrarily or whimsically, but only after having been required by the courts construing the clear intent of PL 92-500 as a, "*Pollution Control Act*".

Two of the areas which give us greatest concern in the emerging environmental regulatory process are:

(1) The lack of predictability which results from the ever-continuing amendment of existing environmental legislation in such a way as to conflict with stated

purposes and policies contained in this legislation which in turn leaves business unsure of what it is required to do or how it must comply; and

(2) The continuing exemption of the agricultural and silvaculture interests, and the pointed application of environmental regulation to the development industry in such a manner as to raise in our minds a very real question as to whether we are receiving equal protection of the laws.

To the extent that we have been able to follow the current debate generated by HR 9560 (S. 2710), generally referred to as the "Wright Amendment" as well as this amendment's earlier predecessor, the "Breaux Amendment", we would consider the elimination of Section 404, or limitation of Corps jurisdiction to the mean high water line of navigable waters, as mistaken.

Congress must decide whether it intends to address the issue of water quality. While a balanced approach to determining federal jurisdiction for this purpose is necessary,[1] attempts to limit that jurisdiction to traditional concepts of navigability and mean high water lines will create built-in conflicts in the law. In the end, these conflicts will work to the disadvantage of private business by denying it the predictability it must have to comply with the law. Moreover, sweeping exemptions of particular economic interests from the operation of PL 92-500 will raise equal protection issues which may jeopardize the statute itself. Although the Breaux and the Wright amendments intend to simplify and restrict federal regulatory jurisdiction under PL 92-500, their net effect will be to create further uncertainty, litigation, and resulting lack of predictability.

Instead, you and your staff might well profit from an examination of the Florida Dredge and Fill Rule (Ch. 17-4 F.A.C.) enacted under Ch. 403 Florida Statutes, known as the "Florida Pollution Control Act". The Florida Pollution Control Act and the Florida Dredge and Fill Rule are comparable analogues of PL 92-500 and the U.S. Corps of Engineers Section 404 Interim Final Regulations.

Florida's Dredge and Fill Rule was the first successful effort by the State to define the area of its water quality jurisdiction in wetlands. The rule recognizes that navigability is not a sole criterion for determining State jurisdiction required to protect the quality of State waters. Moreover, the generally accepted engineering practices of determining mean high water lines were shown in the course of numerous workshop discussions to be unreliable and expensive indicators of wetland areas which need protecting if water quality is to be maintained. The vast stretches of mangrove swamp and fresh water wetlands are of such a diffused nature that the normal mean high water line indicators are often lacking. Moreover, the determination of mean high water line often depends on the establishment of tidal data which may be nonexistent or highly questionable.

Because it was in its interest to do so, General Development Corporation cooperated with the state agencies as well as with Florida environmental groups to develop a definition of wetland areas based on dominant species of vegetation located on lands contiguous to waters of the State. The list of vegetational indicators was carefully refined, and it was recognized that the preservation of a transitional zone around wetland areas was a necessity. These zones were also defined. The State agreed to a commonsense limitation of its jurisdiction based on the size of lakes and ponds, and further limited its jursidiction to coastal waters, bays, bayous, rivers, and streams and their tributaries. Artificial waterways were included within the State's jurisdiction so long as there was a continuous excavated channel or series of excavated channels.

The net effect of the Florida Dredge and Fill Rule was to recognize that the State has a legitimate concern with wetland areas above the mean high water line if it is to preserve water quality. It also gets away from making the development industry overly dependent on expensive studies which often do not resolve the jurisdictional issues based on water quality questions. It is much less expensive to conduct to a biological assessment of a wetland area, using vegetational transects, infrared photography, and related biological techniques. The conduct of the mean high water line survey through a mangrove swamp or in a broadly diffused fresh water wetland is both extremely expensive, and very often nondeterminative of the issue of regulatory jurisdiction.

Thus, we would oppose proposals to eliminate Section 404 of PL 92-500, or attempts by either legislative or executive action to limit the development of the existing Section 404 Interim Final Regulations of the U.S. Corps of Engineers. What we need to work for is a constructive refinement of federal water quality jurisdiction, and a clarification of the permitting process. (The Florida Depart-

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[1] Sen. Gary Hart's suggested amendment allowing limited types of agricultural and other exemptions seems to make sense.

ment of Environmental Regulation and the U.S. Corps District offices in Jacksonville under Col. Donald Wisdom's leadership are making important progress in streamlining and coordinating the state and federal permitting process.) Eliminating Section 404 or limiting Corps' jurisdiction as proposed would leave broadly stated purposes of PL 92-500 on the books, while crippling the ability of the responsible federal agencies to fulfill their duties. This can only create further confusion and chaos in an already complex area just at a time when some degree of consistency is being achieved. Further, the imposition of traditional engineering concepts for the use of mean high water lines to determine the limits of federal jurisdiction in vast areas of the southeastern United States will impose heavy expense on private businesses having to operate in these areas, without assuring the required degree of certainty which private business must have.

We urge you to vote against these amendments, and instead to encourage further refinement of the existing regulatory process. A start has been made, and refinements will continue as the private and public sectors in this field interact. Developing court cases will also give further clarification. We should let the process continue for a reasonable period of time, and not seek to wrench the process off its track at a time when the needed predictability and consistency are just beginning to emerge.

Sincerely,

ARTHUR L. HARPER, Jr.,
Vice President,
Environmental Regulation.

CORTE MADERA, CALIF., *July 21, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Washington, D.C.

DEAR SENATOR RANDOLPH: Thank you very much for your letter of July 6th in which you informed me of the oversight hearings set for July 27 and 28 at which time actions relative to Section 404 of the Water Pollution Control Act will be reviewed.

As I stated to you in my letter of June 24, 1976, I am disappointed and greatly concerned over the procedures allowed during the Wright-Breaux Hearings; specifically, the very short time (20 minutes) permitted for debate on a most important matter. I am again asking you to make every effort to oppose any further inroads which will weaken what little protection we can count on for a priceless national resource—this country's wetlands.

Section 404 MUST BE RETAINED and funds allotted for its implementation.

I request that this letter and my letter of July 21 be made a part of the hearing record.

Very truly yours,

WILLIAM G. GORDON.

JULY 6. 1976.

Mr. WILLIAM G. GORDON,
39 Edison Avenue, Corte Madera, Calif.

DEAR MR. GORDON: Thank you for writing to express your concern over the possible effect of changes being proposed in the provisions of Section 404 of the Water Pollution Control Act.

In light of your views, you will want to know that the Senate Public Works Committee is scheduling oversight hearings July 27 and 28 to review the questions raised by both judicial and administrative actions relative to Section 404.

The committee will decide thereafter what its position will be on provisions of the House-passed version of S. 2710.

Truly,

JENNINGS RANDOLPH, *Chairman.*

CORDE MADERA, CALIF,. *June 26, 1976.*

Senator JENNINGS RANDOLPH,
5121 Dirksen Office Building, Washington, D.C.

DEAR MR. RANDOLPH: We implore you to vigorously oppose current efforts to destroy what little remains of this country's wetlands. We ask you to support the Section 404 program and do all in your power to defeat any attempt to amend the same in any manner whatsoever.

As you must know, there has been a heavy attack by vested interests to destroy by massive development a vital ecosystem which, aside from all its attributes, supports the major part of this nation's fish harvest. Today, as perhaps never before, with shortages in grain, with disastrous weather patterns prevalent everywhere, we cannot interfere to further deplete our food supply.

The Wright-Breaux Amendment, which was so narrowly defeated and which you will be considering, is destructive. We were advised by Congressman Paul McCloskey that this measure was hastily submitted by James Wright, Chairman of the Public Works Committee, and that debate relative thereto was *limited to 20 minutes*. This is frightening in its implications. It shakes further our small faith in our legislators.

Section 404 was adopted and seemingly implemented after lengthy and countless public hearings. The cost of such proceedings, is, as you know, staggering. Now, there is a strong, well-mounted attempt to destroy 404. It serves a vital public purpose and it must not be weakened. May we count on you to see that it is not.

Sincerely yours,

WILLIAM G. GORDON,
JOAN S. GORDON,
Citizens for preservation of Bylands.

STATEMENT OF MAYLIN H. GREASER, PRESIDENT, AMERICAN DREDGING COMPANY

I am Maylin H. Greaser, President of American Dredging Company of Fort Washington, Pa. I am also a Director and Regional Vice President of the National Association of Dredging Contractors.

For over 100 years American Dredging Company has been the leader in the development of contained land disposal areas for dredging materials. In 1890, American Dredging Company commenced acquisition of land along the Delaware River in Gloucester County, New Jersey for the purpose of providing a disposal area for dredged material. Today, the Company owns approximately 2,500 acres. Much of this land is zoned for heavy maritime industry and the remainder for other industrial uses. Naturally, we pay high property taxes on this land because of the industrial maritime use zoning. However, our use of this land as a disposal area has been seriously restricted because of the Section 404 regulations promulgated by the Corps of Engineers.

The need for such disposal areas in connection with our dredging activities is essential if we are to continue in business. We regularly perform the required maintenance dredging and related work for more than 50 water front port facilities along the Delaware and Schuylkill Rivers. The Company has also performed a substantial amount of contract work for the Corps of Engineers, the U.S. Coast Guard and the U.S. Navy on the Delaware River. This navigational work is of great public importance to the Port of Philadelphia.

I urge the Committee to support the Wright Amendment which will restore the balance between the need to protect the environment and the need to maintain navigation for the purpose of interstate and foreign commerce. One of the features of the Wright Amendment which will be most helpful is the State delegation provision which will eliminate the duplicate permit requirements that are now required under the existing law. There is no reason to require both a Federal and State permit where the State applies essentially the same criteria as is used in the Federal procedure. Such duplication is time consuming, costly and adversely affects ancillary dredging for essential navigational projects.

Furthermore, under the present practices and procedures, it takes two years or longer to obtain a State permit and another 1 or 2 years more to obtain a Section 404 permit for disposal of dredged materials in a contained land disposal area. While it is generally recognized that the original intent of Section 404 was to regulate "open" water disposal of dredged materials and to encourage the placement of dredged materials in contained land disposal areas, recent judicial interpretations of this section has had the opposite affect.

Although I strongly support the Wright Amendment, nevertheless, I have reservations as to the inclusion of "adjacent wetlands" within the Federal regulatory jurisdiction. I believe that under certain circumstances, denying a property owner the right to fill "adjacent wetlands" might well amount to the taking of private property for public use without just compensation, thereby raising a serious constitutional question.

In conclusion, I would like to thank the Committee for the invitation to appear before you to express my views on this important question.

TOWSON, MD., *July 21, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: "Good-Bye, proud world, I'm going home. . . ." That is I'm going home if there should remain such a sacred and sylvan retreat. I am most concerned about the progress thus far re the saving of our nation's wetlands. I support wholeheartedly preserving clean water not only for today but for tomorrow as well. We should *not* cut back the controls over the nation's waters. We need to retain the more strict "404" regulations. A better time to amend would be after one has seen the effects of the full three-phase program and can assess them. In any event, the Hart amendment to the Clean Water Act (S. 2710, which I support) is much better in its specificity and details than the Wright-Breaux amendment. Also, the Hart amendment would provide a progress report for Congressional review at the end of next year. I hardly think it necessary to reiterate the services which wetland areas perform. How much more pollution and sewage can we (and wildlife) safely drink? Please give the more strict controls a chance to prove themselves both in hearings and in action. Thank you.

Cordially yours,

CLARA E. GRETHER.

WACHAPREAGUE, VA., *July 27, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR JENNINGS: I heartedly support the Hart amendment to the Clean Water Act, now numbered S. 2710. This statment is to be considered as testimony and included for the record of the hearing of July 27–28, 1976 on Section 404 of the Clean Water Act.

I support the Hart amendment for the following reasons: (1) It is very premature to amend Section 404 and no hearings should be held nor amendments considered until after the full three-phase program has gone into affect; (2) the proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment because it would address those issues mistakenly raised by those who oppose further regulation under the section; it would write into law the exemptions and general permit program already set for Phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year; (3) wetland areas are valuable for their capabilities to break down and remove quantities of pollutants such as nutrients and organic wastes from their tributaries, to store flood waters and to feed and nurture the lower end of the food chain; (4) the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's narrowed definition of "navigable waters."

I also think that other groups should be permitted to testify during the hearings.

Sincerely,

GERARD J. HENNESSEY.

HERBERT H. LEHMAN COLLEGE,
OF THE CITY UNIVERSITY OF NEW YORK,
Bronx, N.Y., July 19, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing in connetion with the hearings which will be held on July 27–8 on Section 404 of the Clean Water Act. My interest in this matter is that of a private citizen, concerned with the "chemical, physical and biological integrity of the nation's waters", especially as it affects the protection and preservation of our much-threatened wetlands.

In my opinion S. 270 contains several ill-designed features. Specifically:

(i) I see no point in amending Section 404 until the three-phase program has gone into effect and shows its strengths and weaknesses in practice. The controls and regulations established in Section 404 are clearly designed to protect our waters from pollution, and it is foolish, in my opinion, to allow the private interest of those who stand to gain by pollution to prevent implementation of the entire three-phase program.

(ii) For essentially the same reason I support the Senate Hart-Cleveland Amendment: it will incorporate into the law the exemptions and the general permit program already established in the regulations for Phases II and III, and thus will invalidate the objections of many who, through ignorance, oppose regulation under Section 404.

(iii) Because of the immense value of wetland areas as a natural water purifying device that at the same time serves as flood-water reservoir and nursery for lower plant and animal life, I think these areas should be protected most carefully from pollution and development. The House (Wright-Breaux) Amendment *excludes* most wetlands from protection under Section 404: for this reason alone the House amendment must be eliminated from the final version of the bill.

(iv) the Wright-Breaux Amendment *also* allows the discharge of polluted dredged materials into tributaries of drinking water supplies. By cutting back controls over what waters are subject to protection, and by an excessively narrow definition of "navigable waters", it moves the nation back almost a hundred years. Again, this amendment cannot be allowed to stand.

Sincerely yours,

ERICA C. GARCIA,
Associate Professor.

Annapolis, Md., July 24, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Senate, Washington, D.C.

DEAR SENATOR RANDOLPH: The Executive Board of the Wardour Garden Club (membership 38) is strongly in favor of the Hart amendment to the Clean Water Act (numbered S. 2710).

The above statement is to be considered as testimony *to be included for the record of the hearing of July 27-28, on Section 404 of the Clean Water Act.*

Furthermore, our members feel that additional groups who are in favor of the Hart amendment be permitted to testify at the hearing.

Thank you for your consideration in this extremely important matter.

Respectfully yours,

Mrs. JOHN A. HUTCHINS,
President, Wardour Garden Club.

INSTITUTE FOR ENVIRONMENTAL STUDIES,
Madison, Wis., July 24, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works, United States Senate, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: In view of the importance of legislation now before the Senate Public Works Committee (particularly the Wright-Breaux amendment to Bill S. 2710), I am enclosing a copy of a recent summary done on the public benefits of the remaining inland wetlands.

The principal conclusions can be stated as follows:

(1) In the order of 90 percent of inland wetlands have been drained across much of the United States;

(2) Inland wetlands appear to be as valuable, if not more valuable than coastal wetlands;

(3) The public benefits are principally for wildlife and fishery habitat, non-point pollution control, water quality maintenance, flood control, recreation and education;

(4) The economic value of these benefits appears to be best estimated at $10,000 per acre in much of the midwest, and in some areas at $50,000 per acre.

I thought these results would be helpful to the Committee in its consideration of water-quality related aspects of Bill S. 2710. I respectfully request that the report be included in the record of your hearings on July 27 and 28.

Sincerely yours,

ORIE L. LOUCKS,
Professor Botany, and
Director, Center for Biotic Systems.

A Summary of Research on the Public Benefits From Inland Wetlands for Freshwater Resources and Water Quality

Research on the role of inland wetlands in regulating water quality and the productivity of lakes and streams has been underway at the University of Wisconsin for some years. The results indicate that their value for wildlife and fishery habitat, non-point pollution control, water quality maintenance, flood control, recreation and education have been seriously underestimated. Ninety percent of the wetlands of Wisconsin are already drained and this is believed to be representative of a large proportion of the inland states. The following report summarizes studies of the direct and indirect public benefits of both state and national significance that are associated with the remaining wetland area.

1. WETLANDS AS WILDLIFE AND FISH HABITAT

Most wildlife and fish species inhabit wetlands at some time in their lives.

Marshes are waterfowl habitat. The values become expressed in terms of water fowl usage during migration in spring and fall, production during the breeding season, and hunting opportunity. [1] Muskrat, mink, and beaver are other commonly trapped wetland species. Other game species such as pheasant and deer use wetlands, particularly during certain seasons for water, food, and shelter. Thus even if hunting occurs in forests or agricultural fields, the upland game hunter also benefits from using the area adjacent to the wetland resource. Wildlife managers have concluded that there is a direct relationship between the number of wetlands in an area and the abundance of wildlife. [2] In addition, many wildlife species other than game depend to a considerable degree on wetland habitats.

Deep water marshes, and marshes with seasonally deep water, are especially important to freshwater fisheries because important game species, such as northern pike and to a lesser extent walleyes and muskies, spawn in these areas. Several species of fish inhabit the open channels and high waters of marshes throughout the year. Federal, state, local and private organizations have long recognized the value of the wetland resource for fish and wildlife and have carried out modest land acquisition programs. Federal acquisition programs along the Mississippi flyway point out the interstate nature of this resource. The fish and wildlife production of these wetlands provides recreational benefits for millions.

In 1973, in Wisconsin alone, 1.2 million fishermen, including 25 percent out-of-state anglers, caught 108 million fish. [3] A 1970 U.S. Dept. of Interior study of east north-central district of the U.S., reported 2.8 million hunters including some 1.1 million waterfowl hunters along the Mississippi flyway. [4] In Wisconsin these sportsmen spent approximately $200 million in 1973. An annual return of $200 million/yr at five percent interest gives us a capitalized value of $4 billion for just the hunting and fishing resources produced by the remaining wetlands of this area.

However the number of users is probably a better indicator of the importance of a resource to society. One quarter of the four million people in Wisconsin fish, with the average fisherman fishing 20 times per year. [3] In 1970 it was found that one of every three men in the U.S. fished, and one of every five hunted. One-ninth of the women fished, and one ninety-fourth hunted. [4] The recreation resources being used by these people depend heavily on the presence of an adequate acreage of healthy wetlands.

2. WATER QUALITY MAINTENANCE

Wetlands filter sediments and excess nutrients improving downstream water quality

Recent studies in Wisconsin and other states show that freshwater wetlands serve a greatly underrated role in limiting the impact of intensive land uses, particularly agriculture and residential development, which might otherwise severely damage aquatic resources. This process is most effective when small bordering wetlands are allowed to stand along small feeder streams. There presently exist no man-made controls for waste and nutrients from such non-point sources, other than the protection of these small, periodically saturated wetland feeder areas. This function becomes more important when intensive agriculture is the dominant land use.

A study conducted at the University of Wisconsin [5] compared the amount of phosphorus loading presently received by an urban lake to the amount received before settlement (and before destruction of 10 percent of the area's wetlands). The shift from natural vegetation to agricultural and urban land uses, and the removal of 300 acres of wetlands, resulted in a two-fold increase in surface runoff to the lakes. The study showed that had the missing acres of wetlands been

preserved, 200–300 kg/yr of the additional phosphorus would have been trapped by the wetlands rather than enter the lake.

Assuming the runoff could be collected and processed, removal of a similar amount of phosphorus by advanced treatment would cost $1800/yr for facilities alone. However, it is presently not feasible to collect and treat pollution from non-point sources, urban as well as agricultural.

Unrestrained release of non-point pollution to streams and lakes has been shown to result in the collapses of the biological resources of these aquatic systems, the loss of game and pan fish resources and the loss of recreational industries associated with these resources. Consequently, wetlands not only serve as habitat and breeding ground for these prized biological resources, but do irreplaceable service in the maintenance of the high level of water quality needed for these resources to survive. Even with extensive stocking of streams and lakes with fish, without upstream wetlands, the lowered water quality will make the investment of little value.

The higher level of water quality associated with upstream wetlands also is important to the survival of recreational industries dependent on water sports. Madison, Wisconsin is currently spending over $150,000 yearly trying to maintain the quality of its famous lakes, a service once performed by wetlands, more effectively and at no cost. These costs are likely to triple in the next few years under new programs for water quality improvement.

Other studies of the beneficial effect of marshes on water quality include a study in Pennsylvania, *Tinicum Marsh as a Water Purifier*, [6] and the Effects of *Marshes on Water Qualtiy* [7] done on Wisconsin marshes. The effects of marshes as water purifiers have been translated into economic values by calculating the cost of an equal amount of sewage treatment. [8] As the costs of man-made treatment systems rise due to inflation and increased standards, wetlands will continue to provide this function at no cost, along with all the associated recreational benefits.

3. FLOOD CONTROL AND EROSION

Wetlands store large volumes of water which would otherwise induce serious costs from downstream flooding.

Flooding is a natural characteristic of river systems. However, because human society centers around rivers, measures are taken to minimize loss of life and property due to flooding. Damming, diking, and channelization are traditional answers to the flood problem. More recently, floodplain zoning and *acquisition of wetlands* along stream courses have been proposed as less costly and more environmentally sound alternatives to the earlier flood control measures.

Wetlands provide a natural means of flood control. A study of the Connecticut River indicates that wetlands reduce peak flood flows by storing large quantities of water and releasing it gradually.[9] A study of flood plain wetland areas along the Nepuset River in Massachusetts indicated that a loss of 10 percent of wetland storage capacity would increase flood stage by 1.5 ft while a 50 percent reduction resulted in flood stage increases of three ft.[10]

Standard engineering practice recognizes the importance of wetlands in the magnitude of flood discharge. Conger's formula relates the flow of flood waters (Q) to a certain value (K) times the percent of marsh and lake area. K depends on the tributary area, slope of stream and drainage basin characteristics.[11] Conger used 13 watershed characteristics, and other than area and rainfall, wetlands were the second most important landscape feature. Using this formula, a reduction of wetland acreage from one percent to zero percent results in a *19 percent increase* in the magnitude of peak flood discharge for a two year flood and a *35 percent increase* in peak flood discharge for a 50 year flood.

Dollar values associated with flood control aspects of wetlands were calculated for the Charles River (Massachusetts) by the U.S. Army Corp of Engineers.[10] Findings indicate that a 40 percent reduction in wetlands along the Charles River would result in a two to four foot increase in flood stage (for a flood similar to that of 1968) causing an additional $12 million in damage. The 8,500 acres of wetlands along the Charles had a value, for flood control purposes alone, of $647,000 per year, or $75.00 per acre per year.[10] The Army Corps of Engineers advised acquisition and protection of these wetlands as the most economic flood control measure.

Wetlands help control erosion and reduce sedimentation.

Erosion of topsoil in rural areas has long been known to reduce agricultural productivity. Such erosion is often associated with spring runoff when flow rates are high. Various soil and water treatments help reduce soil erosion in upland

areas, but many low lying areas, formerly wetlands, but now drained and cultivated, could decrease water flow with consequent reduction in the erosive energy of the water.

Sedimentation of rivers, lakes and reservoirs results from the erosion process. The sediment load of a river can be reduced by any areas of wetland vegetation that will intercept a portion of the sediment load. Excessive erosion results in sediment loss which has many biological and economic ramifications, including reduction of water quality, inhibition of aquatic life, increased flood damage, an increase in harbor and channel shoaling, and reduction of the reservoir life. Wetlands slow the water flow, allowing the suspended sediment to settle, and thereby improving water quality downstream.[9] In the Alcovy River floodplain in George this function has been calculated to have a net annual value of $23,232.[13]

4. SUMMARY AND CONCLUSIONS

Wetland areas provide a broad and varied array of functions in the environment. We can only approximate the economic value to society of each of these functions. A clearer understanding of their importance will be gained by visualizing the number and variety of man-made devices that society must erect and maintain to perform the same functions.

Consider a wetland area bordering a small river which flows into a lake. If the wetland area were filled or ditched the same functions provided by the wetland would require:

(1) A water treatment plant to remove nutrients from surface water, water runoff or throughflow;

(2) In the absence of nutrient removal, weed harvesters or chemical treatment must be used in the lake;

(3) A fish hatchery will be required to replace lost spawning grounds;

(4) Other measures will be taken elsewhere to replace lost waterfowl breeding grounds;

(5) Settling ponds may be constructed in feeder streams to remove sediments which impair the recreational and fishing value of the lake and rivers;

(6) Higher dikes, dams and levees will be needed for flood control;

(7) Other open space areas will have to be purchased for park and recreation uses.

There are many ways in which the direct and indirect values of these wetlands can be converted to dollar equivalents, and each is inadequate in some respects. Two obvious approaches are (1) the sum of all dollar values of downstream benefits, including secondary industries associated with water recreation, and (2) the replacement value of the wetlands as indicated by present and planned local, state, and federal expenditures to improve water quality, flood control, fisheries and wildlife.

Working independently by both of these procedures, it is evident that the real value of wetlands depends on how much of original wetland acreage remains available in a watershed. Where up to 90 percent of the wetlands have been drained or filled, as in much of the midwest, this value appears to be at least $10,000 per acre, and in some areas probably exceeds $50,000 per acre.

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INSTITUTE FOR ENVIRONMENTAL STUDIES,
Madison, Wis., July 24, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works, United States Senate, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We are writing to express our concern with the proposed change of the definition of "navigable waters" by the Wright-Breaux amendment to S. 2710, now before the Senate Public Works Committee. As members of the Institute for Environmental Studies of the University of Wisconsin, we agree with and support the findings of the values of wetlands submitted by Dr. O. L. Loucks, Director, Center for Biotic Systems, Institute for Environmental Studies. We direct your attention to this report for a summary of research indicating the societal values of inland freshwater wetlands.

We would like to add: *Waters and wetlands of all the states are a resource needed and used by all people of all states.* The redefinition of the term 'navigability' proposed by the Wright-Breaux amendment poses a serious threat to the waters and associated wetlands of the United States. The waters of this nation, the wildlife that depend on them, and the recreational values of these waters are not confined to the boundaries of a particular state. The laws and actions of the people of one state will affect the use of the water associated resource in many states.

Enclosed is a map of the major watersheds of the United States; note that state boundaries and watershed boundaries do not coincide. We feel that jurisdiction of these areas, to maintain their highest and best use, should remain with the federal government to avoid the inevitable conflict between states.

We respectfully request that this letter be included in the record of your hearings on July 27 and 28.

Sincerely,

ROBERT M. FRIEDMAN,
Research Assistant.
ELIN QUIGLEY,
Research Assistant.

FIGURE 2-5. WATER RESOURCES REGIONS OF THE UNITED STATES

(Source: U.S. Water Resources Council, 1968)



IOWA WILDLIFE FEDERATION, INC.,
Burlington, Iowa July 23, 1976.

Senator HOWARD BAKER, Jr.
Public Works Committee,
Dirksen Building, Washington, D.C.

DEAR SENATOR BAKER: I am writing this letter concerning the oversight hearings on July 27 and 28 on the Section 404 Permit Program of the 1972 Federal Water Pollution Control Act.

As a representative of the Iowa Wildlife Federation and affiliate of the National Wildlife Federation, I would like to express our support for the Cleveland-Harsha approach to the Section 404 permit system.

Since wetlands provide spawning and nursery areas for commercial and sport fish and shellfish; provide natural treatment of waterborne and airborne pollutants; recharge the ground water for water supply; provide natural protection from floods and storms; provide essential nesting and wintering areas for waterfowl; constitute a high-yield food source for aquatic animals; and provide an important filter system for lakes and streams, I believe a strong Section 404 Permit Program will be of benefit of protecting our remaining wetlands.

Sincerely,

JAMES A. SETTLES,
President, Iowa Wildlife Federation.

IZAAK WALTON LEAGUE OF AMERICA, INC.,
Huntertown, Ind. July 17, 1976.

Re H.R. 9560 and related legislation.

Hon. HOWARD H. BAKER, Jr.,
Public Works Committee, United States Senate, Senate Office Building, Washington, D.C.

DEAR SENATOR BAKER: The Clean Water Committee, Fort Wayne Chapter IWLA has supported PL 92-500, the Clean Water Act of 1972 since its beginning and has carefully noted its operation through Region V, EPA and the various stages of state implementation. The Committee has nothing but great admiration for the thoroughness of this Act.

Therefore, we strongly oppose HR 9560 because:

(1) Section 8: An EPA overview of construction grants of sewage plants *of all sizes* is a very necessary step. This provides a consistency in overview of the total water program. Further it provides control of municipalities, which until the birth of 92–500 did not exist; municipalities pleaded government immunity, were not on permits, and state agencies were reluctant to pursue any attack against cities.

(2) Section 9: Grace periods for municipal pollutors is unnecessary. Municipalities should take the initiative in sewage plant construction and be reimbursed as the grants become available. The 5 year grace period is not a solution to the problem. Grant programs need "stepping up", and small towns in particular need help and not penalties in having to wait for grants to materialize.

(3) Section 12: Civil penalties should stand as written into PL 92–500. The change as written in HR 9560 only stands to benefit big and frequent pollutors and is a deterrent to the clean water goal of 1985.

(4) Section 13: Most importantly, any change in Section 404 of PL 92–500 before it has had the opportunity to even be tested as effective is premature. Section 404 has given us the opportunity for the first time in the battle for clean water to take issue with dredging, filling and spoils and what these actions do in degradation of quality water. Additionally, Section 404 attempts to recognize the importance of wetlands as water quality purifiers and ground water acquifer recharge areas.

Any deletion of the intent of the Permit system implied in Section 404 and its application to the "waters of the U.S." would be premature and destructive of this very important aspect of water quality management.

We strongly request that you support the goals of the Clean Water Act as passed in 1972 and *vote against HR 9560*. PL 92–500 is a thorough, admirable piece of legislation that should "run its course" as envisaged in its inception. PL 92–500 is our last opportunity to arrive at the Clean Water Goal by 1985. Keep it strong and working.

Sincerely,

ETHYLE R. BLOCH,
JANE H. DUSTIN,
Co-Chairman, Clean Water Committee.

Encl: Copy of Editorial. Please read.

House Water Waste . . .

The nation has rarely witnessed such reckless legislative behavior as the House of Representatives recently exhibited in passing legislation to amend the 1972 Federal Water Pollution Control Act. Despite a few instances of reform, the amending legislation is the antithesis of a measure designed to eliminate pollution of the nation's water resources.

Largely motivated by blind reaction against federal land use regulation, a fear exploited by land development interests including the National Association of Home Builders, House members tore into the original clean water legislation. In the end, they wholly destroyed reforms and created more legal and administrative problems than before. They stripped a vital form of federal pollution control from 99 per cent of the nation's previously regulated waters. And to stifle criticism, they cloaked their amending legislation in the disguise of its far superior Senate-passed counterpart.

All of this took place without public hearings and without careful analysis of the amendments' long-range impacts. Unwarranted fear fractured facts. Rhetoric ruled over reason. Parochialism purloined prudence. Legislative haste literally created a framework for more waste in the nation's waters.

Fearing federal land use controls, the House-passed Wright amendment hacked away the regulatory heart of Section 404, a vital component of the original water pollution control act. Yet the original act does not involve federal land control unless the regulated land is submerged under the nation's rivers, streams, lakes and marshes, and is susceptible to pollution by dredging and filling.

The Wright amendment essentially reduces the scope of federal jurisdiction over pollutive dredging and filling from "all the waters of the United States"—as the act originally provided—to only the waters which are involved in interstate or foreign commerce. It makes the fruitless mistake of attempting to separate by legislative mandate the inseparable linkages established by nature among all water systems.

The Wright amendment has grave implications for all the nation's water resources, the small portion visible on the surface and the much greater reserves hidden underground. It places the remaining 55 per cent of the nation's marshes in danger of being filled and drained for land development. In a biotic sense, these wetlands function primarily as water purifiers, as rechargers of underground supplies, as food suppliers for nearly 70 per cent of the nation's commercial fisheries and as breeders of waterfowl and furbearers.

Jeopardizing wetlands along with the nation's secondary streams and lakes, the Wright amendment could effectively cancel all the impressive gains made by the multi-billion dollar federal and private sector investments to curb pollution of primary watercourses. In the process, the amendment could create a legal nightmare of conflicts with other federal legislation including the 1899 Rivers and Harbors Act, the Wetlands Aquisition Act, the Fish and Wildlife Coordination Act and the Environmental Policy Act. And while the courts and the Congress untangle the mess, most of the states will not assume the vacated federal role because they lack sufficient funds and professional staff.

By crippling Section 404, the House seriously negated all the work embodied in developing the original legislation, and it halted the emerging fruition of the act's implementation by federal and state agencies.

What happened in the House was irresponsibly compounded by President Ford. Pending the outcome of a House-Senate conference to settle glaring pollution control differences between the two chambers, Mr. Ford suspended Section 404 regulation of wetlands and secondary streams by the Army Corps of Engineers.

While the President's action lends undeserved credence to the House amendments, there is reason to expect the Senate conferees to restore a measure of sanity to the water pollution control act. Facing stiff House opposition, it will be a difficult job. And ironically, limited success may even result in the death of Section 404 itself.

. . . and Senate Cleanup

Continued progress of the nation's water pollution control program in great measure depends on the success of the Senate conferees in their delicate negotiations with House colleagues. The central issue of course is Section 404, but there are at least a half-dozen less critical amendments which should be reworked into constructive reforms.

In addition to environmental and administrative logic against hasty tampering with Section 404, Senate conferees can employ another powerful argument. Such drastic changes in 404 really amount to major legislative action since they redirect the thrust of the entire water pollution control act. The most responsible approach to 404 entails allowing it to remain intact until both chambers undertake comprehensive reviews of proposed changes. The original act, for example, required two years of congressional study, 39 House-Senate conference sessions and a successful override of a presidential veto.

If the House fails to accept the most responsible approach to Section 404, Senate conferees should consider scrapping it altogether as the next best, but radical, alternative. In its Wright amendment form, Section 404 could easily inflict more damage on "all the waters of the United States and its territorial seas" than not having it at all. Without Section 404, another as yet unscarred part of the original act, Section 402, could substantially secure the best interests of water pollution control.

The intense controversy over Section 404 should not distract the conferees from focusing on other less sweeping but important House-offered reforms. The amendment to qualify communities which use ad valorem taxes to support waste treatment operations for federal pollution control funds is a generally sound idea. Too many cities throughout the nation are deprived of adequate sewage treatment and the federal assistance to improve it because the original act restricts grant funds to those communities which impose a user charge.

It's conceded that user charges are the best means to support a sewage utility. But a better defined House amendment could ensure that ad valorem taxes more proportionately assess treatment costs on those polluting the most.

Another House-passed amendment that deserves support along with scrutiny authorizes the Environmental Protection Agency (EPA) to delegate complete grant approval to the states. The intent of this amendment is to speed up the complicated grant application process and cut down paper work. Again, the quickly authored House language produced a poorly constructed amendment. The con-

ferees should carefully detail the conditions under which EPA can delegate its authority and precisely what standards of administration must be achieved by the delegated state.

The Senate conferees bear the heavy burden of restraining ill-conceived House caprice. They must convince their colleagues from the lower chamber that the "meat axe" approach to legislating is not the way to reform the water pollution control act. And it is not the way to restore the nation's waters.

KIMBERLY-CLARK CORPORATION,
Washington, D.C., August 2, 1976.

Re Proposed Amendments to Section 404 of the Federal Water Pollution Control Act Redefining the Authority of the Army Corps of Engineers to Require Dredge and Fill Permits.

Senator JENNINGS RANDOLPH,
Room 5121, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We understand the Senate Public Works Committee is now considering several bills designed to amend Section 404 of the Federal Water Pollution Control Act of 1972 (FWPCA) and to redefine the authority of the Army Corps of Engineers to require permits for dredge and fill activities carried out in the navigable waters of the United States. Kimberly-Clark Corporation, a worldwide producer of timber and paper products with operations in 19 U.S. States, supports enactment of legislation designed to limit the authority of the Corps of Engineers in this area.

We believe that legislation is needed now to prevent the Corps' Section 404 program from turning into a bureaucratic nightmare. As a result of a March, 1975, U.S. District Court opinion,[1] the Corps has been forced to expand the jurisdiction of its program to include virtually all the waters of the United States rathern than applying it to the more limited class of "navigable waters" specified in Section 404 of the Water Act.

Unless the Congress acts, it may well be necessary for every farmer who wishes to expand an irrigation ditch, every rancher who wishes to construct a stock pond, and every logger who wishes to build a temporary forest road to obtain a Corps permit before doing so. As Congressman Jim Wright of Texas has pointed out, the Congress never intended that Section 404 be read so broadly.[2]

For Kimberly-Clark, imposition of such requirements would be extremely burdensome. In our timber operations, which now encompass some 1.3 million acres nationwide, we estimate that we would be required to apply for some 500 to 600 additional dredge and fill permits annually. The vast majority of these permits would be for environmentally inconsequential activities related to the construction of temporary forest roads. In almost every case, these new permits would duplicate other permits which the Company is already required to obtain from State and local environmental authorities.[3] The Company would also undoubtedly face the

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[1] *Natural Resources Defense Council* v. *Calloway*, 392 F.Supp. 685 (D.Ct.D.C. 1975).

Section 502(7) of the Water Act [33 U.S.C. § 1362(7) (1972)] defines the term "navigable waters" as used in Section 404 of the Act [33 U.S.C. § 1344 (1972)] as follows:

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

In *Calloway*, this language was interpreated as "asserting federal jurisdiction over the nation's waters to the maximum extent feasible under the Commerce Clause of the Constitution," and as "to limited to the traditional tests of navigability." 392 F.Supp. 686.

[2] *See* Congressman Wright's Thursday, May 13, 1976, "Press Release" on H.R. 9560 at page 2.

Clearly, the [Calloway] court case would extend the heavy hand of federal regulations into thousands of private activities never intended by Congress—activities with practically no real impact on water pollution. The Army says it will have to monitor and police as many as 30,000 permits a year. There were only 2,900 two years ago.

The obvious results would be an enormous expansion of the federal bureaucracy, pointless intrusion into the lives of private citizens, and too little of value being accomplished because the government was trying to oversee too much.

[3] Section 101(f) of the Water Act [33 U.S.C. § 1251(f) (1972)] requires that it be implemented so as to

> . . . encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication of unnecessary delays at all levels of the government.

Clearly, imposition of the unnecessary and duplicative dredge and fill permit requirements now contemplated by the Corps of Engineers would run directly counter to the specific requirements of Section 101(f).

prospect of serious disruptions to its forest operations as a result of the inevitable delays involved in the bureaucratic processing of these individual permit applications.

To remedy this situation we urge you to support the Wright Amendment to H.R. 9560, the House version of "The Federal Water Pollution Control Act Amendments of 1976." Congressman Wright's amendment, which has now passed the House, is embodied in Section 16 of S. 2710, one of the bills now pending before the Public Works Committee.

Congressman Wright's proposal would redefine the term "navigable waters of the United States" in a manner consistent with the historic and limited jurisdiction of the Corps of Engineers over such waters.[4] Further, the Amendment would remove normal farming, silviculture, and ranching activities from those activities subject to the Corps' authority, thereby eliminating three principal sources of potentially burdensome and unnecessary regulation under Section 404.[5] Finally, the Wright Amendment correctly recognizes that the States have a legitimate role to play in the regulation of dredge and fill activities within their borders, an essential step to more rational and effective management of this Program in the future.[6]

For these reasons, we urge you to vote for the Wright Amendment as now embodied is Section 16 of S. 2710.

Very truly yours,

ROBERT E. FREER, Jr.
Staff Vice President and
Washington Counsel.

ANNAPOLIS, MD., *July 20, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR: Please include this with testimony for the record of the hearings of July 27–28 on Section 404 of the Clean Water Act.

The Hart amendment to the Clean Water Act, S. 2710 should be supported as representing the best interests of all the people! Government officials are wrong if they judge the people's best interests in terms of the clamor made by special interests. Inevitably, vast numbers of people are uninformed or unable to be heard. It is the moral responsibility of our legislators and people who take time to speak up to be heard for the vast majority of the people whose heritage is at stake!

Please permit as many groups and individuals to testify as possible.

Sincerely,

CAROL M. KIRK.

BOSQUE FARMS, N. MEX., *July 23, 1976.*

Hon. JENNINGS RANDOLPH,
2151 Dirksen Senate Building, Capitol Hill, D.C.

Public Law 92–500 Section 404—best wetlands protection ever—oppose amendments—please read into hearing record.

Mr. and Mrs. JOHN B. KUNZ.

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[4] The Wright Amendment to S. 2710 redefines the term "navigable waters" as follows: "The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural conditions or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)."

See Section 16(b) of S. 2710 adding a new Section 404(d)(1) to the FWPCA.

[5] *See* Section 16(b) of S. 2710, adding a new Section 404(d)(1) to the Water Act: "The discharge of dredged or fill material—(1) from normal farming, silviculture, and ranching activities, including, but not limited to, plowing, terracing, cultivating, seeding, and harvesting for production of food, fiber, and forest products;

* * * * * * *

is not prohibited or otherwise subject to regulation under this Act."

[6] *See* Section 16(b) of S. 2710, adding new Sections 404 (f) and (g) to the FWPCA.

LANDELS, RIPLEY & DIAMOND,
San Francisco, Calif., July 30, 1976.

Re Senate oversight hearings with respect to section 404 of the Federal Water Pollution Control Act.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works, U.S. Senate, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: This firm represents Leslie Salt Co. which is located in Newark, California near San Francisco. We request that this letter be made a part of the record of the current Senate Oversight Hearings concerning Section 404 of the Federal Water Pollution Control Act.

Leslie Salt Co. owns and operates a solar salt production company on lands adjacent to the San Francisco Bay. Leslie owns approximately 45,000 acres of land, 36,000 of which are utilized for salt production through solar evaporation. The remaining lands constitute areas which are no longer in salt production and which are located in industrially developed areas suitable for development. A small portion of the lands constitute open marsh.

Leslie Salt Co. and its predecessors have been engaged in salt production in the present location for approximately 100 years. Leslie is a major producer of salt and currently produces one million tons of crude salt per year from its San Francisco Bay facilities. The salt is marketed throughout California and the northwestern states. Seventy percent of Leslie's salt production is utilized for industrial purposes; 20% for food production and canning; and 10% for agricultural and livestock uses. Leslie employs approximately 535 people in its San Francisco Bay operations and has invested more than $18 million in its salt production facilities.

The lands upon which Leslie currently engages in its salt production activities were all conveyed by the United States to the State of California pursuant to the Arkansas Swamp Act of 1850 (43 U.S.C. § 982, et seq.) for the purpose of facilitating the construction of levees and reclamation. Thereafter such lands were reclaimed, and in fact, their conveyance into private ownership was conditioned upon reclamation of such lands by purchasers.

Reclamation of these lands commenced in the late 1800's. By 1920 virtually all of Leslie's lands had been reclaimed. Following their initial reclamation which consisted of construction of levees and drains, most of the lands were devoted to agricultural use with some being devoted to salt production. Over the years, the lands have been converted from agricultural use to salt production. The solar salt production process involves the pumping of salt water from the bay into the enclosed ponding areas where the water is permitted to evaporate over a period of five years.

Although the lands owned by Leslie were marshlands in their natural state, they have not existed in that condition for at least 75 years. During that period of time they have not been subject to any tidal influence. The lands all lie above the line of mean high water and did so in their natural state.

Prior to 1972, the U.S. Army Corps of Engineers exercised jurisdiction for dredging and filling in the San Francisco Bay by virtue of Section 10 of the Rivers and Harbors Act of 1899. The Corps of Engineers followed the traditional concepts of the definition of "navigable waters of the United States" in implementing that program and did not claim jurisdiction over marshland and former marshland areas. Commencing in 1972, the San Francisco District of the U.S. Army Corps of Engineers commenced a policy of exercising regulatory jurisdiction over not only existing marshlands but also lands which were former marshlands. The basis for extending jurisdiction over these areas was a new jurisdictional guideline defining the shoreward limit of a navigable water on the Pacific Coast as being "mean higher high water."

Shortly after the San Francisco District of the Corps of Engineers adopted the policy described above, the 1972 Amendments to the Federal Water Pollution Control Act (FWPCA), and in particular Section 404, came into existence. As you know, the Corps of Engineers has adopted a series of regulations defining its regulatory authority pursuant to Section 404. For all practical purposes, Section 404 has replaced Section 10 of the Rivers and Harbors Act insofar as the regulation of dredging and filling is concerned. Under Section 404, the Corps has adopted regulations and has implemented a policy which extends its jurisdiction over not only existing marshland areas but also lands which were formerly marsh but which

have been reclaimed for almost a century and are now dry lands or self-contained ponds that are periodically artificially filled with water. The salt ponds of Leslie Salt Co. would be dry land if water was not pumped into the ponding areas

Leslie Salt Co. does not object to the extension of jurisdiction over existing marshlands which it believes should be protected and retained in their natural state. However, the Corps in implementing its supposed authority under Section 404 has extended jurisdiction to lands that were formerly marshlands for reasons that are wholly unrelated to water quality. Leslie, for example, obtains permits under Section 402 of the FWPCA of all discharges into the San Francisco Bay or into any other waterway. The EPA and the Regional Water Quality Control Board which implement Section 402 in the San Francisco Bay area, do not consider Leslie Salt's ponding areas or its dry lands to be within their jurisdiction. The Corps, however, has claimed jurisdiction over these areas by adopting a strained definition of "navigable waters".

The Corps of Engineers has adopted a definition of "navigable waters" for the purpose of Section 404 of the FWPCA for the purpose of extending its jurisdiction to dry land areas or areas which do not in any way affect water quality. The principal reason for the Corps extending jurisdiction is for land use regulation. This is illustrated by the fact that dredging and filling (including the filling of Leslie's ponds) are regulated by the San Francisco Bay Conservation and Development Commission, an agency of the State.

The principal shortcoming of the FWPCA which has led to the excesses of the Corps in its implementation of Section 404 is the definition of "navigable waters". That definition has been construed by the Corps to include areas that are not "waters" but are dry land. This has been achieved by using a definition of historic or former "mean higher high water" as being the boundary of a navigable water on the Pacific Coast for the purposes of defining Corps' jurisdiction. This definition ignores well-established legal principles for defining navigable waters which limit the boundaries of such waters on the Pacific as well as the Atlantic Coast to mean high water. By using the definition of navigable waters as the vehicle to extend its jurisdiction, the Corps has sought to impress all lands below mean higher high water with the "navigational servitude", which is akin to an easement. This in effect creates an interest in the lands in favor of the federal government that has heretofore never existed and which could conceivably permit the federal government to cause private improvements to be removed and facilities to be constructed by the federal government without the payment of compensation to the owner.

Many misleading statements have been made with respect to the justification for the use of "mean higher high water" on the Pacific Coast. I think it should be pointed out that only one out of every seven high tides on the average on the Pacific Coast ever reaches the level of mean higher high water. Use of "mean higher high water" on the Pacific Coast would be akin to using only the average of the highest tides that occur every month on the Atlantic Coast as the means for determining the boundaries of a water body.

The principal vice of using "mean higher high water" as the definition of "navigable waters" is its effect upon lands which were formerly below mean higher high water, but which have been reclaimed for many years. In other words, it is the use of former mean higher high water rather than present mean higher high water that creates severe hardship.

Leslie supports the concept of the FWPCA, that is, a comprehensive and enforceable scheme for cleaning up and protecting the nation's waters. Likewise Leslie believes that the protection of existing wetlands is necessary and desirable. However, we do not believe that it was the intent of Congress in enacting Section 404 of the FWPCA to provide a vehicle for the Corps of Engineers to exercise land use regulation for purposes unrelated to water quality.

We suggest that if Congress wishes to protect existing wetlands through the FWPCA, that it specifically deal with that question rather than attempting to encompass wetlands within the FWPCA by expanding the definition of "navigable waters". The effect of dealing with the wetlands problem in this manner is to bring within Corps' jurisdiction many lands which are no longer wetlands as well as many areas which have no effect on water quality.

We respectfully request that Congress consider amendments to the FWPCA which will make it clear that Congress is not intending to regulate areas which may have been marshlands many years ago, or which may have been waters many years ago, but which are currently dry lands and areas which do not affect water quality. This can be accomplished by limiting jurisdiction of the Corps under Section 404 to areas on the Pacific Coast that are currently subject to

tidal inundation. Such an amendment would protect wetlands as well as other tidal areas but would not subject former marsh areas to Corps' jurisdiction.

Thank you for considering our position.

Very truly yours,

EDGAR B. WASHBURN.

LEAGUE OF WOMEN VOTERS OF THE UNITED STATES,
Washington, D.C., July 26, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
4204 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The League of Women Voters of the United States urges you to reject amendments to Section 404 of the 1972 Water Pollution Control Act that would eliminate protection of our nation's wetlands.

With over half of our nation's wetlands already destroyed by dumping of dredging materials and filling for development, we cannot afford to lose the remainder. With only minimal legislative changes, the permit program already developed by the Corps of Engineers in its July 1975 regulations can give these vital resources the protection they deserve and need.

Any amendment that limits a dredge and fill permit program to waters used for interstate commerce will eliminate protection for 80 percent of our inland and coastal wetlands. Similarly, exempting federal activities from Section 404's protection creates the potential for many of the largest dredge and fill programs to proceed without adequate environmental safeguards.

The regulations developed by the Corps in July 1975 have already addressed many of the concerns about excessive federal regulation. If Section 404 is to be amended, the League urges you to incorporate those regulatory provisions into law.

Proposed changes in law should include authority for a general permit to be used for minimal or environmentally insignificant discharges of dredge or fill material; the exemption of normal farming, ranching, and forestry activities from permit requirements, and the retention of federal authority over the activities that would most significantly affect the nation's water resources.

The existing Corps' regulations give the states a significant role in determining whether a permit for proposed dredge or fill discharges should be granted. Any major changes in this federal-state relationship will only introduce new bureaucratic and judicial delays in the program and create inconsistencies within the Water Pollution Control Act.

Our nation's ecologically and economically vital wetlands cannot afford further assaults. The League therefore strongly urges you to reject crippling amendments to Section 404.

Sincerely,

RUTH C. CLUSEN, *President.*
JEAN ANDERSON,
Environmental Quality Chairman.

LEAGUE OF WOMEN VOTERS OF HOUSTON,
Houston, Tex., July 16, 1976.

Hon. HOWARD H. BAKER, Jr.,
Senate Office Building,
Washington, D.C.

DEAR SENATOR BAKER: The League of Women Voters of Houston is concerned about proposed amendments to the Federal Water Pollution Control Act of 1972, P.L. 92-500. Of particular concern to us is the proposed revision of Section 404 of P.L. 92-500. Section 404 requires that a permit be obtained, through the Army Corps of Engineers, for dredge and fill operations in the navigable waters of the United States. This section is, in our view, the principle regulatory protection of our nation's wetlands, some 46% of which have already been lost to dredge and fill operations. Wetlands, be they marsh, swamp or bay, coastal or inland, serve a variety of roles: buffer areas for flood and storm water, filters for pollutants which run off surrounding lands, hatcheries and nurseries for fish and shellfish, breeding and nesting areas for birds and mammals. We urge you to oppose any efforts to limit the application of Section 404 until there has been an accumulation of practical experience with the Corps of Engineers' recent regulations thereunder.

Other amendments to Section 404 would delegate dredge and fill permit authority to the individual states. No standards or guidelines for the delegation of such authority are, however, proposed or provided for. There are many states which have no wetlands program and, of those which do, there is no uniformity of approach. We ask that you oppose any such piecemeal approach to the protection of our vital and fast disappearing wetlands.

In the Water Pollution Control Act of 1972, the Congress expressly designated the National Commission on Water Quality as the vehicle for comprehensive study and review of the impact and implementation of the goals of that Act. We urge that the report of that Commission be studied and considered by the Congress and that no amendments be adopted until that has been accomplished. Legislation as vital to our nation as P.L. 92-500 deserves no less.

Sincerely,

MADELEINE APPEL, *President.*

COLUMBIA, MD., *July 27, 1976.*

DEAR SENATOR RANDOLPH: I am writing to say that I am strongly in favor of the Hart amendment to the Clean Water Act (S. 2710)—we need Section 404 of the Clean Water Act, and I would like this letter included in the testimony at the July 27-28 hearings. I feel that as many groups as possible should be allowed to testify at those hearings, whenever they are held.

Sincerely,

V. H. LEVERING.

STATEMENT OF MAJOR CHINA CLAY PRODUCERS IN SUPPORT OF REPEAL OR AMENDMENT OF SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

STATEMENT OF POSITION

The china clay industry will be severely and adversely affected if the Army Corps of Engineers is permitted to commence Phase II and Phase III of its proposed regulation of dredge and fill activities pursuant to section 404 of the Federal Water Pollution Control Act. Unless Congress enacts immediate legislative relief, china clay mines must either curtail their activities drastically or risk operating in violation of federal law. To prevent this result, as well as for other significant reasons set forth below, the major United States producers of china clay strongly urge prompt legislative action that either eliminates section 404 from the Act or, in the alternative, adopts Congressman Wright's amendment, section 16 of H.R. 9560, or other legislation specifically exempting china clay production from the Corps' dredge and fill regulations.

SUMMARY OF NEED FOR AMENDMENT OF SECTION 404

China clay lies near the surface of the soil. It is generally found well inland, far removed from waters that are actually navigable and from "wetlands" closely situated to those waters. Mining areas for china clay can encompass hundreds of acres, and the mining operations themselves require grading, building of roads and bridges, contouring, impounding of waters, and other activities similar to those which might occur on a large farm or ranch. Typically, the mining area is traversed by many small creeks and streams, which, as the mining progresses, must be crossed, redirected, or otherwise temporarily affected by the mining operations. Once the mining has been completed, the land is reclaimed in accordance with stringent standards established by state law.

Decisions affecting these small creeks are frequently required in the normal course of mining operations, and it is not uncommon that those decisions must be made with less than one day's notice. For example, mining equipment often must be moved across creeks or drainage areas to other areas being mined or reclaimed. This necessitates the construction of temporary roads and crossings. In its present form, section 404 requires companies that mine china clay to obtain advance permits from the Corps for the construction of each such road and crossing.

Numerous other clay mining activities will also require permits from the Corps, including the temporary storage of overburden removed during mining, the reclamation of certain areas, and even the construction and maintenance of impounds in order to effect sediment control and to comply with National Pollu-

tion Discharge Elimination System permits issued under other provisions of the Federal Water Pollution Control Act. (A more detailed description of mining activities that would require section 404 permits is contained in the Appendix to this statement.)

For the reasons summarized below, requiring permits for these types of mining activities would place an unreasonable burden on the china clay industry, would produce little or no environmental benefit, and would constitute an unnecessary and therefore unwarranted legislative abdication to administrative law-making.

1. The regulations promulgated by the Corps pursuant to section 404 require permit applications for many of the day-to-day activities of china clay mining. By the Corps' most conservative estimate, the processing of each application will take at least six months to one year. Unless Congress takes prompt legislative action on section 404, china clay mines must either curtail their activities significantly or risk operating in violation of federal law.

2. The negative effects of suspending mining operations for china clay would be far-reaching. Not only is china clay a principal ingredient in many essential products, but the industry itself is an economic mainstay of many rural areas, especially in Georgia, South Carolina, and Tennessee.

3. Moreover, general permits will not alleviate the burdens placed on the china clay industry by section 404. First, the approval process for these permits will of necessity be quite lengthy. Next, even if the general permit is issued, the Corps has admitted that no dredge or fill activity could proceed without the Corps' prior determination that each planned activity falls within the general permit. Each of these determinations themselves could entail weeks of delay.

4. Applying section 404 to the china clay industry will result in little or no benefit to the environment. These mines are located well inland, far removed from the critical and ecologically sensitive coastal wetlands. Furthermore, the industry is already effectively and extensively regulated by environmental laws of both the state and federal governments.

5. Congress never intended section 404 to give the Corps authority to regulate dredge and fill operations *in all waters* of the United States. To assert that one relatively obscure legislative provision mandated such a comprehensive regulatory program strains credulity.

6. The Corps' regulations, which were necessitated by the decision of a federal district court, have converted section 404 into a wetlands protection act. Whether our nation is willing to pay the costs of regulating all wetlands is beside the point; careful consideration of this complex and important issue must be a prerequisite to the enactment of such an all-encompassing regulatory scheme. Congress should be the architect of any major wetlands protection legislation, not the Corps of Engineers.

REGULATION AS PROPOSED BY THE CORPS OF ENGINEERS' REGULATIONS WOULD BE UNDULY BURDENSOME

The Corps has designed an administrative procedure for section 404 permits that would require each mining company to submit a massive amount of paperwork before it could perform many of its normal daily activities. For example, in order to secure a permit to ford a stream with a single piece of mining equipment, a company would need to obtain: (1) a state certification that the specific proposed project will comply fully with the provisions of the Federal Water Pollution Control Act and its regulations; (2) state approved reclamation plans; (3) an "Environmental Assessment" and perhaps an "Environmental Impact Statement" surveying the individual and cumulative effects of any activity associated with "any waters of the United States;" (4) an archaeological survey of the individual and cumulative areas to be affected; and (5) an application specifying the type, composition, and quantity of the dredged or fill material, plans and drawings of the proposed activity, and innumerable other details.

Upon receipt of this mass of material the Corps then will take, in its best estimate, six months to one year to decide whether it will issue a permit allowing the mining company to resume its daily operations. Obviously, a company cannot continue to operate with a regulatory system that requires it to obtain permits for its day-to-day activities. Unless those activities can be planned months in advance. It is impossible, however, to plan the daily operations of a china clay mine in that manner. Where and when a mining company explores mines and reclaims land is dictated not by its own long-range planning, but by market demands for varying grades of ore, availability of reserves, discoveries,

depletion of reserves prior to expectation, and a multitude of other factors that simply prevent planning equipment moves and mining operations months or even weeks ahead of time. Thus, if the Corps' dredge and fill regulations go into effect, the china clay industry must significantly curtail mining activities or risk operating in violation of federal law.

SUSPENSION OF CHINA CLAY MINING WOULD HAVE FAR-REACHING NEGATIVE INDUSTRIAL AND ECONOMIC EFFECTS

The negative effects of suspending mining operations for china clay would be far-reaching. China clay is a necessary raw material for many industries. Its principal use is in paper, both as a coating and as a filler, but it is also used in a wide variety of other products, such as whitewear (e.g., porcelain, electric insulators, plumbing fixtures), certain refractories, medicines, and fillers for rubber, paint, plastics, insecticides, and many other products.

Moreover, any significant curtailment of china clay mining would have severe economic repurcussions in certain areas of the country. Although the china clay industry is small compared to most other mining industries, it is extremely important to the economy of many rural areas, especially in Georgia, South Carolina, and Tennessee. It is particularly important to the economy of Georgia, where it accounts for over 50 percent of that state's mineral production value. The six principal producers submitting this statement have a combined payroll of more than $36,000,000 and employ more than 3,000 people, the great majority of whom live in rural areas whose economies are heavily dependent upon the china clay industry.

GENERAL PERMITS AND AN EXPANDED CORPS ARE NOT THE ANSWER

Because the Corps has recognized the problems with its dredge and fill permit program, it has suggested that it might be willing to issue "general permits". Many of the problems described above would still remain, however, even if china clay production were to be covered by general permits. First, the approval process for these permits would of necessity be quite lengthy. Next, even if a general permit is issued, the Corps has admitted that no dredge or fill activity could proceed without the Corps' prior determination that each planned activity falls within the general permit. Each of these determinations could entail weeks of delay.

On the other hand, there would be little justification for maintaining this additional level of bureaucracy at public cost if the Corps were merely to issue these general permits in a perfunctory manner to prevent the closing of china clay mines. An indication of the expenditures necessary to fund section 404's permit program is provided by the House Public Works Committee, whose report on H.R. 9560 reveals that, absent the exclusion or amendment of section 404, the Corps will have to increase its staff by 600 merely to process the applications. The Corps has advised us that its Savannah district office, which has jurisdiction over many of the china clay mines in Georgia, contemplates adding *three new offices with full staff complements* to cover the territory currently served by only the one office.

APPLYING SECTION 404 TO THE CHINA CLAY INDUSTRY WILL RESULT IN LITTLE OR NO BENEFIT TO THE ENVIRONMENT

Applying section 404 to china clay producers will not yield any significant economic benefits. Deposits of the clay are generally found on high ground, hundreds of miles removed from waters that are navigable in fact. As a result, the streams and creeks affected by china clay mining activities are generally small; most have only an intermittent flow and are actually depressions or gullies that drain higher surrounding areas. Generally, the "wetlands" in the area of the mines are merely lowlands where waters running off surrounding higher terrain collect prior to percolation or eventual drainage into a continuous stream. Often the "wetlands" simply result from a beaver dam or other obstruction placed in a small creek.

Moreover, these mining activities are already heavily regulated by environmentally interested agencies at both the federal and state levels. Mining discharges, for example, must conform to guidelines established by the Environmental Protection Agency and by corresponding state agencies. In addition, in Georgia and South Carolina, where the industry is centered, state permits are

required for all mining activities and are issued only after a thorough review of mining and reclamation plans. This review enables the states to control land use and to assure that any damage to the land is temporary. State laws also protect coastal marshlands and other ecologically sensitive areas. Mining cannot be commenced in these areas without permits and is generally excluded altogether.

Finally, many of the mining activities that would be subject to regulation under section 404 are presently required *in order to protect the environment.* For example, the overburden from mining is deposited in lowland areas to protect wildlife and vegetation existing at higher elevations. The mining companies also establish impounds, or settling ponds, to accomplish sediment control. These impounds additionally serve to collect plant effluents and thus control pollution created by the china clay processing facilities. Diversion of streams is also often effected in the mining operation in order to avoid water pollution; and reclamation of mining areas is required by state law. While each of these activities is designed to protect the environment, they will all be subject to regulation by the Corps unless section 404 is changed or eliminated.

SECTION 404 WAS NEVER INTENDED TO GIVE THE CORPS THE POWER TO CONTROL DAY-TO-DAY ACTIVITIES

Nowhere in the legislative history of section 404 is there any indication that it was intended to have the broad reach and all-encompassing scope given to it by the Corps' current regulations. Yet, given the use of the terms "dredged or fill material" and "navigable waters" in section 404, and the broad definition of "navigable waters" found later in the Act, the decision in *NRDC* v. *Calloway*, 392 F. Supp. 687 (1975) and the Corps' regulations, although resulting in an irrational and unworkable regulatory scheme, cannot be said to be without technical foundation. Thus, the courts cannot be relied on to correct this misinterpretation of Congressional intent; instead, Congress must act to bring section 404 back within manageable proportions.

Because the Corps' regulations make such fundamental changes in its powers, current proposals to amend section 404 should not bear the burden of proving their need. To the contrary, the burden should be on the proponents of section 404 to establish that the Corps' regulations are needed. Until they meet that burden, changes to section 404 should be considered mere technical or perfecting amendments designed to correct a situation not contemplated when the Act was passed in 1972.

BROAD WETLANDS PROTECTION LEGISLATION, IF NEEDED, SHOULD BE ENACTED BY CONGRESS AFTER FULL CONSIDERATION; IT SHOULD NOT BE CONCEIVED ACCIDENTALLY IN SECTION

Those opposing repeal or amendment of section 404 argue that wetlands protection should not be discarded without full investigation. This argument fails to recognize that, absent repeal or alteration of section 404, the Corps will assume a significant role in land use planning without Congressional authorization. The full and careful legislative consideration needed before the enactment of such a comprehensive regulatory program was precluded by the understandable failure of anyone to predict the interpretation given to section 404 by the courts. Thus, if section 404 remains in force as presently written, the country will be deprived of this requisite consideration and will be faced with a Corps of Engineers that has, *by accident*, become vested with more power over the daily activities of many Americans than almost any other federal agency.

Perhaps this country needs a "Wetlands Protection Act;" maybe it is even willing to absorb the costs of having mining and other industries regulated by the Corps on an almost daily basis. However, if such all-pervasive legislation is to be enacted, it ought to be enacted by considered choice, and not by a court's technical interpretation of a complex act or by the rambling regulations of an agency.

CORRECTIVE LEGISLATION SUPPORTED BY THE CHINA CLAY INDUSTRY

The china clay producers filing this statement believe that there are three legislative alternatives that would correct the problems faced by their industry. These are as follows:

(a) *Elimination of Section 404.*—The elimination of section 404 would preclude the Corps from effecting Phase II and Phase III of its comprehensive dredge

and fill regulations, thus giving Congress an opportunity to investigate fully the desirability of a federal wetlands protection program. If this investigation reveals a need for such a regulatory program, Congress can then enact appropriate legislation that clearly delineates the scope of federal regulatory power.

If Congress chooses to strike section 404, it should make clear its intention to forestall any comprehensive wetlands management program until it has studied the matter fully. This would prevent the elimination of section 404 from being interpreted as authorizing the Environmental Protection Agency to regulate all dredge and fill activities under section 402 of the Act.

(b) *The Wright Amendment, Section 16 to H.R. 9560.*—The House proposal is a compromise, but a workable one. It restricts the authority of the Corps to areas in which it has both the expertise and the manpower to carry out its new duties. By limiting the Corps as it does, the Wright Amendment also succeeds in relieving it of its virtual nationwide land use control powers and eliminates many of the ridiculous intrusions of the Corps' regulations into areas such as the mining of china clay.

On the other hand, the Wright Amendment is flexible. Under its terms, waters or wetlands of the United States could be made subject to regulation pursuant to a joint agreement between the Corps and the state in which the areas to be regulated are found. Thus, the Wright Amendment allows for the protection of all important waters and wetlands, while avoiding overregulation by the Federal Government.

(c) *Exempted Activities Amendments.*—Amendments to section 404 have been proposed that will eliminate "normal" agricultural and silvicultural activities from its coverage. Such proposals clearly favor certain groups over others even though their activities may have similar effects on the environment. For that reason, any specific activities exemption approach to amending section 404 must be constitutionally and otherwise suspect. If, however, such an approach is followed it ought to be expanded to cover all activities, such as china clay mining, that have little or no impact upon the nation's aquatic system. In any event, water pollution control activities, certain "de minimis" activities, and the temporary disturbance of "navigable" waters, when subject to reclamation requirements, ought to be excluded from the operation of section 404. Specifically, we propose that the following activities be excluded from the operation of section 404:

(1) The discharge of any dredged or fill material for the purpose of constructing or maintaining impounds or other pollution control facilities and ditches or berms or similar facilities designed for the protection of waters from pollution or the diversion of waters from areas in which they are likely to become polluted;

(2) The discharge of any dredged or fill materials during the construction of roads, bridges, crossings, or other facilities over or through streams having a flow under normal conditions of less than 100 cubic feet per second; and

(3) The discharge of any dredged or fill material pursuant to the conduct of any activity specifically subject to state or federal regulations calling for the reclamation of the affected area in a manner consistent with contiguous properties and the discharge of any dredged or fill material during the course of any such reclamation.

CONCLUSION

For each of the reasons stated above, it is apparent that Congress should take some legislative action to correct the situation that exists under the Corps' regulations promulgated pursuant to section 404. We have outlined three, alternative approaches, any one of which would alleviate the serious problems now facing china clay producers. Our great concern, however, is that because of a difference as to the preferred approach Congress will fail to take any action in time to prevent the forced curtailment of china clay mining activities by the implementation of Phase II and Phase III of the present regulations. We therefore urgently request that Congress act decisively now to enact one of the three legislative approaches outlined above.

Submitted by Sutherland, Asbill and Brennan on behalf of: American Industrial Clay and Georgia Kaolin Divisions of Yara Engineering Corp.; Anglo-American Clays Co.; Engelhard Minerals and Chemicals Corp.; Freeport Kaolin Division of Freeport Minerals Co.; J. M. Huber Corp.; Thiele Kaolin Co.

APPENDIX

TYPICAL CHINA CLAY MINING ACTIVITIES THAT WOULD REQUIRE SECTION 404 PERMITS UNDER PRESENT LAW

1. *Deposit of Overburden.*—China clay mining requires the removal of the top layers of soil (called overburden) to expose the mineral. During mining, most of the overburden is backfilled into previously mined out areas, but some of it is placed outside the mining pit. Upon completion of mining, that overburden is generally used as fill, or is graded and contoured in accordance with reclamation plans. During mining the overburden placed outside the mining pit may be retained in surrounding "lowland" areas which, because of their location, may support natural drainage or be periodically inundated. Such placement might, in some instances, be considered the disposal of "fill" material in a "wetland."

The placement of overburden in such areas, however, is the only efficient placement from an energy standpoint as well as an economic one. If the overburden were placed on higher ground it might cover mineral reserves, requiring it to be removed twice in the course of mining, and it might adversely affect valuable agricultural land. On the other hand, any adverse effect on "wetland" areas by the temporary storage of overburden is not permanent because applicable mining laws require the reclamation of all affected areas. Finally, from an environmental standpoint it must be recognized that in the inland areas where china clay mining is conducted the higher elevations support valuable wildlife and vegetation at least equal to the ecological value of the lower properties. Any regulation that would require overburden placement on higher elevations rather than in lowlands should be supported by information indicating that one type of property is more worthy of protection than another.

2. *Construction, Use, and Maintenance of Impounds.*—The removal of rainwater that has collected in mine pits and control of runoff from affected areas must often be controlled if it affects water quality in nearby streams. Such sedimentation control is accomplished by collecting this water in impounds where it is allowed to settle and clear prior to discharge. These impounds are constructed in lowland areas to take advantage of natural drainage. The impounds may require both dredging and, in the construction of dams, filling.

Impounds, or settling ponds, also constitute 1977 BPCTCA and 1983 BATEA for the discharges from china clay processing facilities. These impounds are either entirely man-made or constructed by damming lowland areas. They often exceed 100 acres in size. Pollution control results from settling of plant effluent in these impounds. Nevertheless, representatives of the Corps' Savannah office have indicated that such settling would constitute the discharge of fill material into a "navigable water."

In order to preserve the life of these impounds, they may be dredged with the dredged spoil being used to increase their freeboard. The alternative to periodically increasing the capacity of these impounds in this manner would be to abandon "filled" impounds and construct new ones, thus affecting more acreage. Nevertheless, under section 404 and the Corps' regulations, such maintenance of impounds will require Corps approval and permitting.

In short, prior to the construction, use, or maintenance of a pollution control facility designed to meet what has been defined under the Act as "best available technology economically achievable," the activity will have to be permitted by the Corps.

3. *Construction of Roads and Bridges.*—The mining properties cover substantial acreages that must be improved to permit access to vehicles; for this reason, the companies build a substantial number of roads. These roads often cross small streams, drainage areas, lowlands that may hold standing water after large rains, and other areas that could conceivably be considered "navigable waters" under the present definition applied to section 404 by the district court that ordered the promulgation of the present proposed regulations of the Corps. Because of the prevalence of such areas, Corps approval would probably be required under section 404 each time that a company moves its equipment into a new area.

4. *Stream Diversion.*—Streams may run through or nearby mine areas. In such instances, *to avoid polluting a stream,* it may be diverted. Such activity would require a Corps permit under present section 404.

5. *Reclamation.*—All acreage affected by the mining operations must be reclaimed. This could involve grading walls around man-made lakes, with a consequent discharge of fill material, or removing dams or berms in wetland areas. It could involve replacing stream beds and otherwise redirecting water flows in order to comply with reclamation plans required by state authorities. It almost always requires moving heavy equipment in, around, and over creeks and lowland areas. All such activities, even if conducted in accordance with state approved plans, would also have to be approved by the Corps under present section 404.

WACHAPREAGUE, VA., *July 27, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR JENNINGS: I heartedly support the Hart amendment to the Clean Water Act, now numbered S. 2710. This statement is to be considered as testimony and included for the record of the hearing of July 27-28, 1976 on Section 404 of the Clean Water Act.

I support the Hart amendment for the following reasons: (1) It is very premature to amend Section 404 and no hearings should be held nor amendments considered until after the full three-phase program has gone into affect; (2) the proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment because it would address those issues mistakenly raised by those who oppose further regulation under the section; it would write into law the exemptions and general permit program already set for Phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year; (3) wetland areas are valuable for their capabilities to break down and remove quantities of pollutants such as nutrients and organic wastes from their tributaries, to store flood waters and to feed and nuture the lower end of the food chain; (4) the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's narrowed definition of "navigable waters".

I also think that other groups should be permitted to testify during the hearings.

Sincerely,

JAMES W. MACFARLAND.

PALO ALTO, CALIF., *July 23, 1976.*

Re Section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: Please consider this letter to be part of the hearing record on Section 404 of the Clean Water Act.

I believe that the Corps of Engineers should be given an opportunity to implement their 3-phase program for 404, before any amendments or hearings on amendments are considered. It is difficult to give reliable and competent testimony on the status of a program not yet implemented.

It has been my experience, and the record shows, that the Corps of Engineers is a responsive, professional, well-managed agency, and has a reputation since 1899 of being reasonable to permit-seekers. I see no evidence that the Corps has suddenly become unreasonable and unable to responsibly manage the 404 program.

Most recently, their administrative procedures have allowed for abbreviated, short cut approvals for minor work in navigable waters, and for general permits for similar classes of projects, thereby eliminating any possibility of unnecessary "red tape". The Corps' extensive expertise in construction management, project economics and scheduling, water quality, navigation, and environmental concerns attracted the attention of Congress when this program was first entrusted to the Corps. It would be reasonable to continue that trust and mandate until the Corps has had an opportunity to fully implement the 404 program that Congress gave the Corps.

One reason for the 404 program was the maintenance of wetlands as fish and waterfowl habitat, as the basis for feeding the lower parts of the food chain which ultimately reach to all men, as flood storage reservoirs, and as free water quality

filters. The House amendment would prevent the 404 program's necessary control of the discharge of polluted dredge material into tributaries of drinking water supplies, which are not included within the House's narrow definition of "navigable water". The House amendment is counter-productive to the Clean Drinking Water Act, enacted just last year.

In summary, I urge you to reject all amendments until after implementation of the 3-phase 404 program. Anything less could be interpreted as a lack of confidence in the Corps of Engineers, which has managed the navigable waters program skillfully since 1899.

Yours very truly,

Dr. ROBERT MARK.

MARYLAND WETLANDS COMMITTEE,
Annapolis, Md., July 26, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We understand that your Committee is considering amendments to the Federal Water Pollution Control Law which would weaken federal protection of our nation's wetlands (20–210).

Specifically, the Wright Amendment in this bill would remove current Section 404 protection from most freshwater wetlands, streams and lakes.

Since the majority of states do not have laws to protect wetland areas, we believe that the federal 404 review and permit process is essential. Even in the state of Maryland which has a wetlands law, pressures to dredge and fill wetlands are so great that without federal review and regulation, many of our most valuable wetlands would be lost each year. Also, freshwater wetlands are not protected under the Maryland Wetlands law as they are under 404.

Wetlands are one of our nation's greatest natural resources. They filter pollutants from the water, provide flood protection and serve as irreplaceable breeding grounds for fish and waterfowl.

Furthermore, since wetlands form the base of the food chain essential to life in estuaries like the Chesapeake Bay, our great bays and lakes cannot survive without them.

Thus, *we urge you to stand firm against any weakening of the Section 404 program.* Instead of the Wright amendment, please support the *Hart amendment* which would clarify 404 regulations and authorize general permit programs for projects with minimum environmental impact.

Sincerely,

MARJORIE BEANE, *Acting Chairperson.*

BERLIN, MD., *July 24, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Washington, D.C.

DEAR SENATOR RANDOLPH: Testimony to be included in the record of the hearing of July 27–28, 1976 on section 404 of the Clean Water Act. The undersigned strongly endorse the Hart Amendment now numbered S2710 and are strongly opposed to the Wright-Breaux Amendment, We recommend for your consideration a simple authorization bill extending one years funding for the Clean Water Act.

Very truly yours,

BEATRICE H. MARTY,
KENNETH B. MARTY,
LOUIS R. HUPPMAN,
DIANNE HUPPMAN,
ELIZABETH R. H. HUPPMAN,
GEORGE H. HUPPMAN.

CHENEY, WASH., *July 16, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Senate Office Building, Washington, D.C.

MY DEAR SENATOR: Please enter my remarks in the record of the hearing of July 27–28, 1976, on Section 404 of the Clean Water Act.

I would like to go on record as wholeheartedly supporting the present form of Section 404. As a biologist by profession, I understand the importance of wetlands

in the natural world. Not only do they provide habitat for wildlife and many desirable aquatic organisms, but wetlands also serve to remove nutrients from water courses and therefore act to retard eutrophication in bodies of water fed by these streams. Wetlands are thus of the greatest importance to the maintenance of water quality. For this reason, I strongly favor retention of Section 404.

In my opinion, the Wright Amendment passed by the House in H.R. 9560 is a devastating blow to efforts to achieve clean water in our country. I hope that the Senate will not follow a similar path and cave in to the special interests who seek to profit by destruction of our few remaining wetlands. I urge the Senate to adopt no amendments to Section 404 with the possible exception of the Hart Amendment, which simply clarifies the existing regulations.

I appreciate the fact that the Senate, unlike the House is holding hearings on this matter in an effort to obtain public input.

Very truly yours,

JAMES MCFARLING.

SAN DIEGO, CALIF., *July 15, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: This is submitted for the official record of the July 27–28 hearing on Sec. 404 of the Clean Water Act.

The undersigned citizens are interested in strong regulations for control of discharge of dredge and fill materials in the waters of the USA, whether navigable or not. Two reasons for our interest, based on knowledge of this part of the country, follow.

In southern California small local creeks often supply water to the reservoirs used for urban drinking supplies. In San Diego County coastal wetlands are of great importance as nurseries for the large fishing industry, both commercial and recreational.

We urge that Sec. 404 not be amended for the reasons given above. In addition, we feel amending is untimely; such action should wait until the entire program (all 3 phases) have gone into effect. If cosideration is given to the Hart-Cleveland and Wright-Breaux amendments, we support the first or Senate one as preferable.

Sincerely yours,

MR. and MRS. A. MORLEY.

RICHARD R. NAGEOTTE,
ATTORNEY AT LAW, LTD.,
Woodbridge, Va., August 13, 1976.

Re Senate Public Works, section 404 hearings

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, New Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: This letter is forwarded to you for submission as part of the public record concerning itself with the above referenced hearings. In discussions with your staff on August 12, 1976, I was advised that the hearing record would be open until August 16, 1976 and that the next meeting of your committee is on August 25, 1976. The reasons for my calls and this letter were as a result of concern that the only input to your committee hearings might be from professional lobbying environmentalist groups and input received from the general public might be limited. Your staff assured me, however, that you have received a broad range of comments concerning the section 404 amendments. As an attorney, I have been involved with the United States Army Corps of Engineers and other governmental agencies in the area of dredge and fill projects since 1971. I have also represented individuals charged with dredge and fill violations in the federal court in Norfolk, Virginia.

My past involvement in these areas as an attorney is a great source of personal concern. I have observed over the years a continued expansion of federal jurisdiction into areas which I consider to be an unconstitutional taking of property without just compensation and in violation of due process of law. I have seen both government agencies and environmental groups oppose activities of individuals and corporations not for compelling environmental reasons but solely because they represented a profit motive in the private sector. I have been involved with

governmental agencies and environmental groups which voice opposition to projects ithout ever having seen the projects or genuinely understanding the environmental impacts involved. I have seen a great deal of personal and financial resources wasted as a result of "bureaucratic red tape" and delays which in some instances have been accompanied by a requirement to comply with everchanging rules, regulations and legislation in this area. In one instance alone, I have been involved for over five years in an attempt to obtain a permit from the Army Corps of Engineers and this matter has still not been concluded. I have seen or been made aware of instances in which dredge and fill permits are granted to some and denied to others without apparent relationship to environmental considerations. I have seen some evidence that persons opposing the philosophy of some governmental agencies are subjected to greater pressures including unmerited criminal and civil prosecution while others are left to do as they please.

As a practicing attorney all of the above practices which seem to accompany legislation with its associated bureaucratic administration cause me a great deal of concern. As an American, I am very much concerned about our environment. However, I feel that the methods and manner in which environmental questions are addressed leads to a perpetuation of the above listed practices and in the end can only be detrimental to sincere environmental efforts. When the practices that I have listed above become so severe, the pendulum will shift by legislation or otherwise and in the end the environment will suffer.

I have a number of ideas which I think make sense in an effort of wetlands preservation. The current system of attempting to extend jurisdiction of governmental agencies and then by the granting or denial of permits refuse to an individual or corporation its constitutional right to use its property under the guise of a public trust argument are in my opinion, unconstitutional and counterproductive. As a first step to any wetlands policy, I would require that the available wetlands for preservation be categorized. The wetlands while a valuable asset to the environment are as other assets more or less productive and valuable given a number of economic and environmental reasons. Once the wetlands have been categorized to the point that identification can be made of those having sufficient value to be preserved, a government policy could be established to insure their preservation without interference with the constitutional rights of the owners. A system of tax credits could be established for those persons who would voluntarily relinquish development of their wetlands. Watermen and persons deriving their source of income from the benefit of the wetlands, unlike farmers, do not buy cultivate or pay real estate taxes on the land from which they derive their income. A reasonable tax could be placed upon watermen and persons deriving their income from the fishing industry, which tax would of necessity be passed on to the consumer and the proceeds of that tax could be used for the establishment of a wetlands preservation fund. This fund could be used either independently by the government or in association with other funds such as the Nature Conservatory of Alexandria, Virginia to purchase wetlands which would preserve them in their natural state. This approach would spread the cost of wetlands preservation over the general public that derives its income from the fishing industry and consumes the products rather than place an inequitable burden of wetlands preservation upon those few property owners owning and paying taxes on wetlands. In addition to the above suggestions, I have a number of others which I think would be of benefit to those whose genuine concern is preservation of sufficiently productive wetland areas without the need for extensive bureaucratic involvement and unconstitutional taking of lands of private citizens.

While I recognize that the above indictment of the current system and suggestions for a viable wetlands policy are necessarily generally set out because they are offered in letter form, I would be most happy to cooperate with you or your committee or any members of your staff in an effort to more fully appraise you of my feelings concerning the current status of the wetlands policy and suggestions for a more viable future wetlands policy. It is my continued hope that this future policy will not be built around a more cumbersome bureaucratic administration under the guise of permit requirements brought about by extension of federal jurisdiction into areas involving the rights of private citizens.

If I can be of further information or assistance to you in this regard, please do not hesitate to call upon me.

With kindest regards, I remain

Very cordially yours,

RICHARD R. NAGEOTTE.

NATIONAL ASSOCIATION OF HOME BUILDERS,
Washington, D.C., July 29, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Washington, D.C.

DEAR MR. CHAIRMAN: This statement is submitted on behalf of the 79,000 member firms of the National Association of Home Builders for the record of the hearings on the impact of the Army Corps of Engineers regulations issued pursuant to Section 404 of the Federal Water Pollution Control Act (FWPCA).

NAHB, the trade association of the home building industry, is seriously concerned with the impact that these regulations, especially Phase III, will have on residential construction. As presently written the regulations will require, after July 1, 1977, permits from the Corps in order to dredge or fill in waters with a flow rate of greater than 5 cubic feet per minute or an area greater than five acres and the adjacent and contiguous wetlands. There are many activities which are normally done to transform raw land into building sites which will require permits from the Corps under the proposed regulations. Any dredging of a small stream, within the definition of navigable waters, which is done to alter its course, or reduce the possibility that it could overflow and flood nearby homes will require a permit from the Corps. So, too, will the diversion or partial impoundment of such a stream if natural materials are used. Additionally, the regulations will require permits to fill in any marshy areas which are contiguous to navigable waters, including filling done to elevate river banks as a means of property protection. In those areas of the country which enjoy an abundance of streams and tributaries, these are very common operations. Requiring permits in order to carry them out will cause unnecessary and costly delays in construction. These delays will mean higher prices for consumers as the costs of developing land are driven upward.

The time delay from initial land acquisition to the start of construction is a major factor in determining the cost of a construction project. Subdivision development requires a series of discretionary actions by local, state and often federal agencies which rarely can be coordinated to occur simultaneously. The result is delay while each agency's approval is sought. A study by the Construction Industry Research Board has translated time delay into dollars. The 1975 study found that *each day's* delay between acquiring the land and applying for a building permit added *$14* to cost of a $30,000 home and $24 to the cost of a $50,000 home. This same study reported that the average delay between acquisition and applying for a building permit in developing areas such as Southern California, Colorado, and Washington, DC, was more than 18 months. Any delays that applying for a Section 404 permit would cause would be in *addition* to this average figure since the land improvements which would require a permit are among the first ones done by a builder in order to prepare the lot for construction. With the average price of a single family home now in excess of $43,000, any regulation which will add to this cost should be permitted only for the most serious of reasons.

These regulations do not fall into that category since they are, for the most part, unnecessary. An effective mechanism already exists in the FWPCA to control run-off and sediment from nonprofit source activities. Section 208 of the FWPCA gives a very broad grant of authority to regional planning groups to control such run-off and sedimentation. The grant of authority includes land use and other controls which are sufficient to control the type of pollution the Corps regulations are designed to prevent.

We fully recognize that dredging and filling in the major rivers and lakes of the United States and the resulting pollution should be regulated by the Army Corps of Engineers. But to erect a far-reaching regulatory program that will control activities undertaken on relatively minor streams is lacking in logic and necessity. We urge the Committee to adopt Section 16 of the House version of S. 2710, popularly known as the Wright amendment, when that measure is considered in Conference. We feel the Wright amendment is a reasonable compromise which carefully balances environmental and economic needs. The Corps would have the authority to protect those waters used or capable of being used in interstate or foreign commerce and their adjacent and contiguous wetlands. Protection of all other waters and their wetlands will be left to the states. Thus, the amount of unnecessary and duplicate regulation is sharply reduced without neglect of important environmental considerations.

We respectfully urge the Committee's favorable action with respect to this matter.

Sincerely,

CARL A. S. COAN, JR.,
Staff Vice President and Legislative Counsel.

Statement of the National Association of Realtors[1] to the U.S. Senate Committee on Public Works on Section 404 of the Federal Water Pollution Control Act

The National Association of Realtors is comprised of more than 1,600 local boards of realtors located in every state of the Union, the District of Columbia, and Puerto Rico. Combined membership of these boards is approximately 500,000 persons actively engaged in sales, brokerage, management, counseling, and appraisal of residential, commercial, industrial, recreational and farm real estate. The activities of the Association's membership involve all aspects of the real estate industry, such as mortgage banking, home building, and commercial and residential real estate development, including development, construction, and sales of condominiums. The Association has the largest membership of any trade association in the United States concerned with all facets of the real estate industry. Principal officers are: Philip C. Smaby, President, Minneapolis, Minnesota; Harry G. Elmstrom, Vice President, Ballston Spa, New York; H. Jackson Pontius, Executive Vice President. Headquarters of the Association is at 155 East Superior Street, Chicago, Illinois. The Washington office is located at 925–15th Street, N.W., Washington, D.C. 20005. Telephone 202–628–5300.

The National Association of Realtors appreciates the opportunity to comment on Section 404 of the 1972 Federal Water Pollution Control Act. Although we would have preferred to appear before the Committee, we welcome the opportunity to present our views for the record. The National Association of Realtors is the largest trade association in the United States involved with all aspects of the real estate industry. The Association is composed of 50 State Associations, 1600 local boards, 8 affiliated Institutes, Societies and Councils with a combined membership of approximately 500,000 members.

We commend the Senate Public Works Committee for holding hearings on this controversial and far-reaching Federal program. Our statement will be broken down into the following areas:

Elements of a Wetland Protection Program; Problems With the Present 404 Program; Possible Solutions to the Current Problems With the 404 Program.

I. Elements of a Wetland Protection Program

The National Association of Realtors acknowledges the importance of our nation's wetlands and we support a balanced, resource management approach to protect these resources. We believe that any program to protect the nation's wetlands should contain four important elements. The program should:

(1) Provide ample opportunity for State and local involvement.

(2) Be limited enough in scope to be manageable, yet broad enough to cover ecologically significant wetlands.

(4) Recognize the rights of property owners and compensation should be awarded where there has been a "taking" of property.

The present program, being administered by the Army Corps of Engineers, does not contain any of these elements. Consequently, we see some major problems with the existing program.

II. Problems With Present 404 Dredge and Fill Permit Program

The National Association of Realtors would like to bring to the Committee's attention several problems we perceive with the current 404 Program. In order to deal with these problems, we strongly believe three key elements must be addressed.

1. The redefinition of navigable waters to bring back in line the Corps' Program with the original intent of Congress.

2. Delegation of authority to those States which choose to undertake a wetland protection program.

3. General permits and exemptions for certain agricultural, ranching and silviculture practices.

These three key elements we feel must be dealt with simultaneously. Following is a list of problems with the present program:

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[1] Realtor is a registered collective membership mark which may be used only by real estate professionals who are members of the National Association of Realtors and subscribe to its strict Code of Ethics.

A. The present 404 dredge and fill permit program mandates excessive Federal involvement

The present Dredge and Fill Program is administered solely by the U.S. Army Corps of Engineers. Farmers, ranchers, foresters, miners and private property owners must all go to the Corps to receive permits for any dredge and fill activity. Under this program States and localities do not have the opportunity to become involved in the protection of their wetlands. This seems to be in direct conflict with the objectives of the 1972 Act and the desire of the American public which is demanding less Federal control and less Washington influence over their lives and businesses.

The Federal Water Pollution Control Act states:

"Sec. 101(b), *It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States* to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources . . ." (emphasis added).

It is apparent that the Congress intended for the States to have a major role with the implementation of the Act. This is in stark contrast to the current program which is exclusively a Federal program absent of State participation.

Most States now have or are developing programs that deal with ecologically important wetlands. In these States the Federal program will duplicate, in many instances, State efforts. Twenty-three States enacted legislation to protect wetlands or shorelines. Thirty States are participating in Coastal Zone Management Programs. Forty-eight States have specifically authorized local control of development in flood-prone areas. These figures certainly indicate that the States are willing to become involved in wetland protection. On this issue the House Public Works Committee's report stated: "The Federal government cannot and should not be expected to assume the entire responsibility for environmental protection." [2]

The National Association of Realtors believes that there should be a delegation of authority to the States under the 404 Program.

B. The present 404 dredge and fill permit program will require a large and costly Federal bureaucracy to administer

The Army Corps of Engineers estimates that an additional 600 employees will be necessary to process permit applications alone. The House Committee Report points out, "this does not include enforcement activities which will become increasingly difficult." [3]

At a time when the Federal deficit soars, it is highly unlikely that either Congress or the Executive Branch will permit the additional large number of personnel required to manage the present Section 404 permit program, which some have estimated will be in the thousands.

The number of permit applications under the current Corps' program . . . "is expected to rise from close to 20,000 to at least 40,000 and more likely 50,000 by 1978." [4]

C. The present 404 dredge and fill permit program was mandated by the courts and exceeds the intent of Congress

The NATIONAL ASSOCIATION OF REALTORS believes that the Congress did not envision such an extensive and far-reaching program under the 1972 amendments of the Federal Water Pollution Control Act. In fact, the 1972 Act did not even mention that wetland protection was one of its goals. It was the Court decision, N.R.D.C. vs. Calloway (392 F. Supp. 687 1975), which extended the Corps' regulatory authority to virtually all waters of the United States. We now find that Section 404 is being looked at by many as the mandate of Congress to protect our nation's wetlands. Although the stated goals of the Act are to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and "provide for the protection and propagation of fish, shellfish, and wildlife . . .", it does not state, as a goal, the protection of wetlands.

The Court's decision on this issue is analogous to another court decision on the Clean Air Act which has led to the promulgat on of regulations dealing with significant deterioration of air quality. All too often it appears that the intent of Congress is being expanded by the courts. Therefore, we would hope that this Committee would draft legislation making clear its intent on this issue by redefining navigable waters as it pertains to Section 404.

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[2] Federal Water Pollution Control Act Amendments of 1976, Report No. 94-1107, May 7, 1976, p. 22.
[3] Ibid.
[4] Ibid.

D. The present 404 dredge and fill permit program will prove unmanageable

Because of the court definition of navigable waters, which has come to mean "virtually every coastal and inland artificial or natural waterbody," [5] the scope of the Corps' program will be so massive that it will be impossible to manage effectively. Because of the numerous amounts of permit applications that will be required, lengthy delays will be inherent in the program. The bureaucratic red tape, associated with the program, will add to spiraling construction costs, adversely affect the forestry industry and even frustrate meaningful conservation practices.

In dealing with the issue of manageability of the 404 Program, the House Public Works Committee's report stated, "the Committee is concerned that the program will prove impossible of effective administration and that more will be lost than gained in the protection of the Nation's waters." [6] We believe that the only practical and feasible way to make the program more manageable is through the redefinition of navigable waters.

E. The present dredge and fill permit program could have an adverse impact on normal agricultural, ranching and water conservation practices

Although the Corps has stated that it has no intention of regulating normal farming and ranching activities, there is no assurance that future court action will not force the Corps to become active in this area. Such development activities as pond construction, sod waterways, diversion ditches, stream bank improvements, and other water management practices will come under the jurisdiction of the Corps' regulatory program.

The House Committee report pointed out similar concerns when it noted, ". . . under the existing Section 404 Program given its broadest reach, all matters of small agricultural and forestry activities could be subject to Federal permit regulation." [7] Eventually, virtually all construction and development activity would also be subject to the Corps' permit program if it is to be conducted adjacent or contiguous to surface waters.

F. The present 404 dredge and fill permit program is too single-purpose in nature to adequately protect wetlands

Any program to protect the nation's wetlands should balance economic, environmental and energy considerations. The case by case permit approach, only dealing with dredge and fill activity, represents too narrow a focus to effectively protect valuable wetlands. Wetland protection should come through a balanced, resource management approach rather than a piecemeal permit approach.

As the House Committee Report points out, for example, that the Coastal Zone Management Program ". . . is the type of comprehensive planning and regulatory program which is needed for the protection of wetland areas, not the limited project by project approach under the expanded Section 404 Program." [8]

III. POSSIBLE SOLUTIONS TO THE CURRENT PROBLEMS WITH THE 404 PROGRAM

The NATIONAL ASSOCIATION OF REALTORS® would like to suggest two possible solutions to deal with the present problems. First, a national policy on wetland protection should be established, followed by legislation to implement that policy. The legislation and subsequent program developed should include the four elements of wetland protection outlined earlier in this statement. Although this would be the most thorough way to deal with the issue, it may not be the most practicable.

The second alternative would be for Congress to pass the Wright Amendment contained in Section 12 of S. 2710. The Wright Amendment contained in H.R. 9650 passed the House of Representatives June 3, 1976, by a vote of 234–121. It should be pointed out that the Amendment, as passed by the House, was a compromise. On April 13, 1976, the House Public Works Committee reported out its bill with the Breaux Amendment by a 22–13 vote. The Breaux Amendment would have redefined navigable waters as follows:

"The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)."

[5] Ibid, p. 20.
[6] Ibid., p. 22.
[7] Ibid., p. 23.
[8] Ibid., p. 22.

In addition to that definition of navigable waters, the Wright compromise would:

(1) Mandate the implementation of a dredge and fill permit program for those wetlands adjacent to "navigable waters".

(2) Allow the Secretary of the Army to delegate permit authority to a State if it is determined that the State has sufficient authority to effectively protect those wetlands adjacent to "navigable waters".

(3) Exempt normal farming, ranching, and silviculture practices from regulation under the Section 404 dredge and fill permit program.

(4) Allow additional wetlands to be added to the Army Corps of Engineers' permit jurisdiction if agreed to by the governor of a State and Secretary of the Army.

In conclusion, the NATIONAL ASSOCIATION OF REALTORS® strongly urges the Committee to support the Wright Amendment. We feel it will address the major concerns over the present 404 Program.

First, the Wright Amendment addresses the increasing public concern over Federal control and intervention into State and local affairs by allowing States an opportunity to administer the program.

Second, the Wright Amendment addresses the problem of creating an inefficient or unworkable program because it would limit the scope of the program under the redefinition of navigable waters.

Third, the Wright Amendment spells out the intent of Congress with respect to wetland protection and would, therefore, alter the court-ordered program.

Fourth, by exempting certain ranching, farming and silviculture practices and by allowing for general permits, the Amendment will remove some of the more burdensome requirements that were never intended to be part of the program.

Last, we contend that the Wright Amendment addresses, at least in part, the problem of the narrow permit approach to wetland protection. State involvement in the program could lead to coordination with other wetland protection programs, such as flood plain control and coastal zone management.

NATIONAL COALITION FOR MARINE CONSERVATION, INC.,
Boston Mass., July 9, 1976.

Re amendments to section 404 of the Federal Water Pollution Control Act

Senator HOWARD H. BAKER, Jr.,
Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR BAKER: The National Coalition for Marine Conservation, Incorporated is unalterably opposed to any amendment to the Federal Water Pollution Control Act which would have the effect of reducing protection of vital coastal wetlands from further degredation.

Coastal wetlands are essential to the productivity of the oceans. According to Dr. Beatrice Willard, a member of the Council on Environmental Quality, all of the ocean's living resources are, directly or indirectly, dependent upon the coastal zone. Food webs which support the vital activity in estuarine waters and tidal marshes extend inland far beyond the mean high water mark. This intimate linkage between inland wetlands and the coastal zone was completely overlooked by the Breaux Amendment which would have limited the permit requirements for dredge and fill projects to navigable waters and "waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark."

In all, some 40 percent of the nation's wetlands (about 45 million acres) have been lost. Housing and commercial development, highway construction, military bases, garbage dumps and other activities, all contribute to wetland losses. Pollution is another cause. Few states have acted vigorously to prevent further needless wetland losses. Criteria governing eligibility of the states to take over control of wetlands development from the Corps of Engineers contained in the Wright Amendment are so vague as to be meaningless, and the Wright Amendment should be rejected for that reason.

We urge you to reject the Breaux and Wright Amendments in their entirety. The Corps Regulations issued under Section 404 are workable and effective and specifically exclude normal farming and ranching activities from permit requirements. EPA Administrator Russell Train has stated that a properly managed Section 404 program is essential for protecting the nation's water resources.

The Cleveland-Harsha Amendments would have the effect of preventing over-regulation of farming and ranching activities evidently feared by supporters of Breaux and Wright-type amendments without exempting practices that have a substantial adverse effect on wetlands or permitting abuse of the exemptions in a way that would vitiate the permit system.

In the event that a majority of the Public Works Committee favors state control of wetland regulation, we urge you to substitute meaningful criteria which the states must meet and live up to in order to take over control of wetlands management from the Corps of Engineers.

Sincerely yours,

CHRISTOPHER M. WELD.
Secretary.

NATIONAL CONFERENCE OF STATE LEGISLATURES,
OFFICE OF STATE FEDERAL RELATIONS,
Washington, D.C., July 27, 1976.

Hon. HOWARD BAKER, Jr.,
Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR BAKER: On behalf of the National Conference of State Legislatures, I urge your support for several of the House-passed amendments to your bill, S. 2710, on the Water Pollution Control Act.

As you know, the main burden of carrying out the responsibilities of P.L. 92-500 rests on the States. Congress established an explicit national policy in Section 101 of the Act to "recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution."

In keeping with this policy, the National Conference urges your support for Section 213 in the House amendments, enabling qualified states to assume more responsibility for processing sewage treatment construction grant applications. This provision would go far to break the logjam of applications now awaiting review and approval of the Environmental Protection Agency. Considering that Congress intended a three-year construction program in 1972, the delays have been little short of crippling; as of last December—more than three years since the 1972 amendments—only $1.7 billion of the $18 billion authorized had been spent.

Not only does the environment pay for this inefficiency, but so do the taxpayers. Given the constant upward ratchet of construction costs, the federal red tape ensnarling the construction program translates into ever smaller returns for the dollars spent, so that each delay brings state and local governments closer to the grim choice between what is adequate and what is affordable.

This is the more distressing when one considers that the misapplication of federal manpower also costs in quality control. After conducting several interim audits suggesting possible mismanagement and fraud, EPA has concluded that giving more responsibility to states for the construction grant program would strengthen federal control over such abuses at all levels. EPA budgetary resources now devoted to processing construction grant applications could be freed for improved auditing and general oversight.

An important point here is that the certification of states to take over more administration of the grant program need not result in loosened federal control. Any amendment on state certification can give EPA discretion to approve only those states that can satisfy existing statutory and regulatory requirements. Further, the Agency should have discretion to withdraw certification for all or part of a state's authority if the state is not properly discharging its responsibilities.

Section 213 would, in our judgment, remedy major problems in the construction grant program without creating new administrative pitfalls. The National Conference of State Legislatures is joined in this judgment by the National Governors Conference, the Water Pollution Control Federation, and the water pollution control agencies of 48 states. In its report on P.L. 92-500, the National Commission on Water Quality also recommends state certification. We feel that this amendment deserves your careful consideration.

You are no doubt very much aware that many of the communities across the nation will be unable to meet the statutory 1977 deadline for secondary treatment. This is due in no small measure to the impoundment of construction grant funds and the same administrative difficulties that Section 213 of the House amendments seeks to remove. Surely administrative fairness dictates that these communities not be penalized for problems beyond their control. We hope you will consider

language affording case-by-case extensions of this deadline where communities have shown good faith efforts to comply.

Another amendment worthy of your close attention is Section 214 of the House amendments. Section 214 would simply clarify the original intent of Congress that states have complete control over the setting of priorities for sewage treatment construction. In the past, some states have had their needs for one category of treatment works, such as sewer interceptors, go unmet because EPA put more priority on another category.

Finally, NCSL urges your prompt and favorable consideration of an amendment to limit the expansion of Army Corps of Engineers permit jurisdiction over dredge and fill activities under Section 404. To avert the coming profusion of federal red tape over all waters of the United States, the Conference recommends a delimitation of Corps jurisdiction to commercially navigable waters, strong state input into federal permit decisions, and the opportunity for delegation of additional responsibilities to the states. Rep. Jim Wright's compromise amendment to the House version of S. 2710 is, however, a workable approach. If there is insufficient support among your colleagues for the Wright amendment, we feel that there should at least be a longer moratorium on Phase II of the court-ordered expansion of Corps responsibilities to all lakes, primary tributaries, and their contiguous or adjacent wetlands.

As you probably know, there is a substantial reservoir of support for some or all of these substantive amendments among public interest groups, including not only NCSL, but the National Governors Conference, the National Association of Counties, and the National League of Cities/U.S. Conference of Mayors. We would like to think that this support was in some measure responsible for the overwhelming 339–5 vote of approval for these amendments in the House.

It would be most unfortunate if Congressional action on these amendments were to be postponed until next year. While a full examination of the nation's water pollution control effort and the recommendations of the National Commission on Water Quality deserves a high priority on the legislative agenda for the 95th Congress, we feel that to defer consideration of the substantive amendments already proposed is to allow the program to labor indefinitely under burdens that could be lifted now.

Sincerely,

Representative Nancie Fadeley, Oregon,
Chairman, Natural Resources Task Force,
National Conference of State Legislatures.

Statement of Representative Edward F. Williams of Tennessee, on Behalf of the National Conference of State Legislatures to the Senate Committee on Public Works on Amendments to the Federal Water Pollution Control Act

Members and Staff of the Senate Public Works Committee: My name is Edward F. Williams, and I am providing this testimony for the National Conference of State Legislatures on important needed amendments to the Federla Water Pollution Control Act. I have been a member of the Tennessee House of Representatives since 1970 and an engineer in municipal and industrial water quality control for the past 16 years. To my knowledge, I am the only professional water pollution control engineer holding public office in the United States. I am also a member of the Environmental Protection Agency's Advisory Group on Section 208 Areawide Planning. Further, lest there be any question of my credentials as an environmentalist, I am proud to have been named the Tennessee Water Conservationist of the Year by the Tennessee Conservation League in cooperation with the National Wildlife Federation in 1973.

I am submitting this statement to urge your favorable consideration of several amendments strengthening the states' role in the national effort for cleaner water. As you know, Section 101 of the Act accords a primary role to the states in this effort, but I think there are more than adequate grounds to say that in the past few years, this cardinal principle has been honored more in the breach than in the observance.

Knowing your interest in the problem of Army Corps of Engineers dredge and fill permit jurisdiction, let me begin by saying I strongly endorse what has come to be known as the Wright amendment to Section 404. This amendment, passed in the House by a wide margin early last June, provides adequate safeguards

against the environmental degradation of most of the nation's wetlands as well as against the jurisdictional encroachment of the federal government into a matter best handled at the state level.

The amendment would reduce the ambit of Corps dredge and fill regulations to commercially navigable waters and their contiguous or adjacent wetlands—a reasonable retreat from the administratively-nettlesome court-ordered regulation of all waters of the United States. In addition, the Wright amendment would exempt normal farming, foresting and ranching activities, maintenance work on currently servicable structures such as dams and bridge abutments, and the construction or maintenance of farm or stock ponds and irrigation ditches. This should go far to allay many of the concerns you have no doubt heard on this issue, but a further safeguard against unneeded paperwork is the provision authorizing general permits for repeated dredge and fill activities whose environmental effects are marginal and otherwise in the public interest.

The most valuable feature of the Wright amendment, however, is that it recognizes and makes room for state capabilities and concerns. A state would be allowed to take over all or any part of Corps dredge and fill responsibilities if it could satisfactorily show it has the authority, responsibility and capability to carry out the functions in question, and the delegation of these functions is in the public interest. The Governor of a state could also request the Corps to extend its jurisdiction to waters not regulated under the amendment if they were of sufficient ecological and environmental importance.

States thus have the option to design a joint state-federal effort on this front tailored to their perceived environmental, fiscal and economic needs. They also have the opportunity to take over all Corps responsibility if they have an adequate program. This opportunity for delegation is one of the principal grounds for my endorsement of this amendment, since the State of Tennessee already has adequate legal authority under its Surface Mining Act to regulate dredge and fill activities, even in areas not earmarked for the Corps' jurisdiction under the Wright language.

While this amendment sets forth a sound basic structure for the administration of dredge and fill permits, even its sponsor has conceded that it is not perfect, and I would like to suggest a few improvements. Under subsection (j) of Section 16 of the House bill, I note that the Secretary of the Army would have rather wide rule-making discretion in setting the terms of state delegation, the suspension of delegation, and its revocation for cause. Since states would have to make a substantial administrative commitment to qualify for delegation, I think they should have more say in the setting of conditions to which they will be expected to conform. This would go far to eliminate uncertainty and enhance the incentive for states to recover their proper responsibilities. State participation in the development of rules for suspension and revocation would also help to reduce possibilities for misunderstanding that could lead to unwanted litigation.

If the Committee does decide to adopt language similar to the Wright amendment, perhaps the problems I foresee there could be averted if language in the Committee report clarifies your intent that the Secretary's rule-making be carried out after consultation with appropriate state officials. The states should also be given adequate notice of deficiencies in the performance of their delegated responsibilities and enough time to correct them before the Secretary moves to suspend or revoke the delegation. Further, there should be an opportunity for public hearings and the building of a public record on the Secretary's ultimate decision.

Another problem that could be resolved in legislative history concerns the requirement that a state have adequate "authority, responsibility and capability" to carry out the functions it requests for delegation. If the intent here is to make states adopt laws substantially identical to federal law and regulations as a condition for delegation, there could be undue delays. Experience with state delegation of the National Pollutant Discharge Elimination System permit program suggests that it could take several years for states to enact the necessary laws, particularly in states with biennial legislative sessions. I therefore recommend that any Committee report language on this question make it clear that a state could qualify for delegation if it can show that it has or will acquire the necessary staff and is demonstrably capable of performing the requested functions. Such capacity would, I think, be adequately demonstrated if a state were actively carrying out responsibilities delegated under the NPDES permit program in Section 402.

This brings me to another issue that was not adequately disposed of in the debate on the House floor. Subsection (e) of the Wright amendment says that except as provided in any agreement between the Corps and the Governor of a state, the discharge of dredged or fill material in other than navigable waters or

their adjacent wetlands is not prohibited or otherwise subject to regulation under this Act. Notwithstanding the assurances of some supporters of this amendment, it is not at all clear that subsection (e) would allow regulation of toxic pollutants, for example, in dredged or fill material discharged into non-navigable waters or non-adjacent wetlands. This being so, state programs may have to fill in the vacuum. Although Tennessee and many other states have laws authorizing controls on pollutants in dredged and fill discharges that could be unregulated by the Corps under Section 404(e), it would be helpful to have language specifically assuring states' rights to legislate in this area.

Finally, I notice what may be a drafting error in subsection (f) relating to state-Corps agreements on the regulation of dredge and fill activities in non-navigable waters and non-adjacent wetlands. This subsection provides that any such agreement may be revoked "by the Governor of the state who entered into such joint agreement." This language lends itself to the interpretation that only the Governor who had entered into the agreement could revoke it. To allow subsequent administrations to revoke or modify an agreement, I would suggest that this authority be expanded from the "Governor" to the "State."

The House bill contains a number of other amendments as important to the States as Section 404, however. Chief among these is the provision for certification allowing states to assume more responsibility for sewer construction grant programs. In shifting most of the responsibility for grant application processing to the federal level, the 1972 Water Act amendments engendered a costly bureaucratic Frankenstein of duplication, delay and red tape. Much of this could be eliminated if the Act were amended simply to recognize that states can discharge many of EPA's responsibilities just as well or better, and that qualifying states deserve the opportunity to do so.

In the State of Tennessee, for example, the Division of Sanitary Engineering has been reviewing plans and specifications for sewage treatment plants since 1945. Most of the other Southern states with which I am familiar have similar programs at least 15 years old. The 1972 Water Act amendments resulted largely in a duplication of these state efforts that has slowed down sewer construction without making any significant changes in facility design. Considering the cost of the duplication both in man-hours and construction delays, I urge you to give serious consideration to Section 213 of HR 9560, enabling EPA to certify qualifying states to perform more of the functions now tying up EPA personnel. This amendment is a special priority of the National Conference of State Legislatures.

No doubt you are aware that the inefficiencies now written into the construction grant program have made it impossible for many communities to meet the 1977 deadlines for secondary treatment. I think it only fair that these communities be given some relief from a problem largely beyond their control, and I commend for your consideration a case-by-case extension of this deadline where communities have shown good faith efforts to get their plants built or upgraded in time. Such a provision would also obviate pointless enforcement action and litigation for EPA.

Finally, I want to urge your close attention to Section 214 of the House bill, enabling states to set their own construction priorities by category of treatment works. Where a state has determined that it needs more and better sewer interceptors, for example, it should be allowed to devote more of its construction grant allocation to this category—not to the kinds of works earmarked for priority by Agency people on some bureaucratic Olympus hundreds of miles away.

In Tennessee, John Saucier, our state director of Water Quality Control, can tell you off the top of his head what types of sewer construction are needed. I'm sure his salary is nowhere near that of the regional EPA decision-makers in Atlanta, but I doubt if any of them could come close to matching his grass-roots familiarity with the problems in our state.

In closing, I want to thank you and your staff for this opportunity to convey my recommendations for your water pollution bill on behalf of the National Conference of State Legislatures. In terms of money, manpower, and sheer scope of regulation, the Federal Water Pollution Control Act is the most ambitious commitment this nation has made to environmental improvement. It would be sad indeed if the goals of this Act were to be frustrated by an unwillingness to give the states more opportunity to share in the effort. The "primary responsibilities and rights of the States" are, after all, one of the cornerstones of the Act itself.

NATIONAL CONSTRUCTION INDUSTRY COUNCIL,
Washington, D.C., July 19, 1976.

Hon. JENNINGS RANDOLPH,
U.S. Senate, Washington, D.C.

DEAR SENATOR RANDOLPH: Enclosed are 30 copies of the National Construction Industry Council statement on section 16 of S. 2710, which will be discussed at your Public Works Committee hearing later this month. We would appreciate having the statement distributed to the Committee members and included in the hearing record.

While we recognize that inclusion of a written statement in the record will present the views of our organization to the Committee, the Council is very concerned that it has not been allowed an opportunity to personally appear on behalf of the construction industry. NCIC wishes to express most strongly its objection to procedures which do not accord to an entire industry genuinely affected by and concerned with this legislation an equal opportunity to be heard along with those in the various governmental agencies whose views are not in agreement with our own.

Not only is the industry being denied time to present testimony, but we understand that the Department of Transportation will also be excluded.

In view of this, we would hope that the written testimony will be given full consideration.

Sincerely,

ANTHONY M. PONTICELLI,
Chairman, Legislative Committee.

STATEMENT ON BEHALF OF THE NATIONAL CONSTRUCTION INDUSTRY COUNCIL FOR SUBMISSION TO MEMBERS OF THE SENATE PUBLIC WORKS COMMITTEE, U.S. SENATE, SECTION 16 OF S. 2710 (H.R. 9560)

The National Construction Industry Council, formed in 1974, speaks with a single voice for 30 (thirty) associations in the construction industry representing contractors, suppliers, design professionals and others associated with our industry.

The following members join in this submission: American Concrete Paving Association; American Consulting Engineers Council; American Institute of Architects; American Institute of Steel Construction, Inc.; American Road Builders Association; American Society of Civil Engineers; American Society of Landscape Architects; American Subcontractors Association; Associated Builders and Contractors, Inc.; Associated Equipment Distributors; Associated General Contractors of America, Inc.; Associated Landscape Contractors of America, Inc.; Ceilings and Interior Systems Contractors Association; Concrete Reinforcing Steel Institute; Council of Construction Employers, Inc.; Mechanical Contractors Association of America, Inc.; National Asphalt Pavement Association; National Association of Plumbing-Heating-Cooling Contractors; National Constructors Association; National Council of Erectors, Fabricators, and Riggers; National Crushed Stone Association; National Electrical Contractors Association; National Society of Professional Engineers; National Utility Contractors Association, Inc.; Portland Cement Association; Power and Communications Contractors Association; Prestressed Concrete Institute; Producer's Council, Inc.; Sheet Metal and Air Conditioning Contractor's National Association; and Society of American Registered Architects.

Additionally, the following non-member associations join in this statement: National Association of Counties; American Concrete Pipe Association; League of Cities and Conference of Mayors; League of Women Voters; and Water Pollution Control Federation.

The National Construction Industry Council jointly, and its members individually, support section 16 of S. 2710 (H.R. 9560) restricting the authority of the Corps of Engineers as outlined in Congressman Wright's substitute amendment which appears in the House-passed bill.

The Corps' original jurisdiction, granted under the Rivers and Harbors Act of 1899, has been broadened by successive court decisions interpreting both the 1899 Act and section 404 of the Federal Water Pollution Control Act and would require the Corps to promulgate regulations redefining navigable waters to the degree that all waters of the United States would be covered by 1977. Congressman Wright's amendment would repeal stages two and three of the Corps' July, 1975, regulations.

Several construction associations have filed statements in opposition to these regulations with the Corps of Engineers. It is estimated that should this new, expansive definition of navigable waters, as set forth in the current interim regulations, be allowed to stand, permit applications under section 404 will increase to the level of 30,000 per year, necessitating the hiring of an additional 600 personnel merely to process the applications. (Report of the House Committee on Public Works and Transportation, 94–1107, and the House floor debate opposing same in the *Congressional Record* of June 3, 1976.)

NCIC agrees with the statements contained in the Committee Report evidencing concern that such a permit program would prove impossible to administer effectively or will not have an appreciable effect in the protection of our nation's waterways. In addition, activities of a small scope in both agriculture and forestry could become subject to Federal permit regulations. The attempt of the Corps to remedy these situations through issuance of "general permits" will not have the desired effect since such permits have, in the past, proved readily susceptible to court challenge by environmental groups.

This new jurisdiction of the Corps, if not curtailed by adoption of section 16 of S. 2710 (H.R. 9560), would extend to both Federal and non-Federal construction activities. The delays which would be anticipated to flow from such permit requirements are presently apparent and have affected Federal programs conducted under the auspices of the Federal Highway Administration, the Bureau of Reclamation, the Soil Conservation Service, and the Economic Development Administration. It is obvious that, should these interim regulations remain in effect, major construction projects throughout the United States could be halted. Such delays would not only have the inflationary effect of increasing project costs, but would also restrict employment opportunities in an industry currently suffering a contractor unemployment rate of 15.3%.

For these reasons, NCIC supports the efforts of Rep. Jim Wright (D-Texas) in introducing the amendment resulting in section 16 of S. 2710, and sincerely hopes the Senate will take *prompt* action on this matter within the 60-day deferred period established by President Ford on July 2, 1976.

NATIONAL COORDINATING COMMITTEE
ON FISH AND WILDLIFE IN FEDERAL WATER RESOURCES PROJECTS,
July 16, 1976.

Re Wright-Breaux amendment to section 404, Public Law 92–500

Hon. HOWARD H. BAKER, Jr.,
U.S. Senate,
Dirksen Building, Washington, D.C.

DEAR SENATOR BAKER: As I indicated in my letter December 8, 1975 concerning "Section 404" permit regulations and EPA guidelines to the Corps of Engineers, I am deeply concerned about the effect that the passage of the subject amendment would have on our wetlands. I have enclosed a copy of my letter to Senator Randolph, who will be conducting hearings on this amendment, expressing the reasons for my views.

I would appreciate your support for the preservation of this nation's wetlands and their dependent wildlife. The State of Tennessee is blessed with many wetland areas along the Mississippi River, which are of national importance since this is a major flyway for North American waterfowl. In 1975, over six million ducks were harvested in the Mississippi flyway. This is more than 50% of the ducks harvested in the United States. In supporting the protection of these wetlands you would be doing a great service not only to the State of Tennessee, but the nation as a whole.

If you feel you cannot *oppose the* passage of this amendment, we would request that your support of this amendment be conditioned on companion legislation to provide comprehensive nationwide wetland protection.

Sincerely,

HARVEY BRAY,
Chairman, National Coordinating Committee.

Enclosure.

NATIONAL COORDINATING COMMITTEE,
ON FISH AND WILDLIFE IN FEDERAL WATER RESOURCES PROJECTS,
July 16, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I have been advised that the Senate Public Works Committee has scheduled hearings for July 27 and 28 on the Wright-Breaux Amendment to Section 404 of the "Water Pollution Control Act of 1972". The National Coordinating Committee is greatly concerned about the adoption of this amendment and I request that this letter be made a part of the hearings record.

The National Coordinating Committee is comprised of the executive officers of all major state, federal, and private fish and wildlife agencies of the United States. Our committee was pleased when the U.S. District Court ruled, on March 27, 1975, that the Corps of Engineers must expand its jurisdiction in regard to the enforcement of "Section 404". We felt that if this Court decision was implemented it would slow down the high rate of loss of our wetland areas and waterways to development and fill. These areas provide vital habitat for a great variety of wildlife, both vertebrate and invertebrate. These areas also produce the plant life that is the source of much of the organic matter consumed by aquatic animals. They act as buffer zones protecting other land areas from erosion and flood damage. They aid in a natural purification of water in the maintenance and recharge of ground waters that are necessary for the maintenance of stream flows. They are unique recreational areas with high aesthetic values, and contain delicate and irreplaceable flora and fauna that support valuable opportunities for hunting, fishing, and nature study.

Most states have been unable to afford the protection that these areas require and, therefore, we feel it is incumbent upon the federal government to assume this protection. Since these areas provide habitat for migratory birds, they are of obvious national importance. In addition, in the past some of the greatest detrimental effects resulting from the channelization and filling of these wetland areas was brought about by federal agencies. It is my firm belief that if the federal government neglects its responsibilities by approving the Wright-Breaux Amendment these areas will not be adequately protected by local government agencies.

Thank you for allowing me the opportunity to comment on this important issue.

Sincerely,

HARVEY BRAY,
Chairman, National Coordinating Committee.

NATIONAL COUNCIL OF FARMER COOPERATIVES,
Washington, D.C., July 26, 1976.

Re dredge and fill regulations of section 404 of Public Law 92-500.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, U.S. Senate, Dirksen Senate Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: The National Council of Farmer Cooperatives is a nationwide association whose members are farmer-owned and farmer-controlled cooperative associations engaged in the marketing of practically every type of agricultural commodity, and the furnishing of major types of supplies and credit to their members and patrons. Approximately 4,500 farmer cooperatives serving more than 3.5 million farmer memberships are represented in the National Council. The U.S. Department of Agriculture estimates that five out of every six ranchers/farmers are members of one or more farmer cooperative associations.

On Tuesday, July 27, and Wednesday, July 28, the Senate Committee on Public Works will hold oversight hearings to review the dredge and fill regulations of section 404 of Public Law 92-500, the Federal Water Pollution Control Act of 1972.

Earlier this year, on June 3, the House of Representatives approved an amendment to section 404 which defines the term "navigable water" as "all waters which are presently susceptible to use in their natural condition or by reasonable improvement, as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)." This amendment became necessary because the Army Corps of Engineers, pursuant to a court order, has issued final regulations for the dredge and fill permit program that encompass not only navigable bodies of water, but all waters of the United States. As presently interpreted, this greatly expanded jurisdiction of the Corps of Engineers includes, as pointed out in the House floor debate, permit requirements for a rancher who wants to enlarge his stock pond or a farmer who wants to deepen an irrigation ditch or protect his land from stream erosion. Surely the placement of such power in the Corps of Engineers goes far beyond what was contemplated by Congress when it passed Public Law 92–500.

As your oversight hearings will demonstrate, adoption of the amendment to section 404 will not leave the Nation's wetlands unprotected, since numerous state and federal statutes already regulate their use. The amendment will, however, eliminate a classic example of costly and unneeded regulation that will hinder rather than help the conservation efforts of farmers. The National Council of Farmer Cooperatives urges your support for the enclosed amendment to section 404 as contained in the "Federal Water Pollution Control Act Amendments of 1976" and as approved by the House of Representatives.

Sincerely yours,

KENNETH D. NADEN.

Enclosure.

PERMITS FOR DREDGED OR FILL MATERIAL

SEC. 16. (a) Subsection (a) of section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended by adding immediately after "navigable waters" the following: "and adjacent wetlands."

(b) Such section 404 is further amended by adding at the end thereof the following new subsections:

"(d)(1) The term 'navigable waters' as used in this section shall mean all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast).

"(2) The term 'adjacent wetlands' as used in this section shall mean (A) those coastal wetlands, mudflats, swamps, marshes, shallows, and those areas periodically inundated by saline or brackish waters that are normally characterized by the prevalence of salt or brackish water vegetation capable of growth and reproduction, which are contiguous or adjacent to navigable waters subject to the ebb and flow of the tide, and (B) those freshwater wetlands including marshes, shallows, swamps, and similar areas that are contiguous or adjacent to other navigable waters, that support freshwater vegetation and that are periodically inundated and are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction.

"*(e) Except as provided in subsection (f) of this section, the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands is not prohibited by or otherwise subject to regulation under this Act, or section 9, section 10, or section 13 of the Act of March 3, 1899.*

"(f) If the Secretary of the Army, acting through the Chief of Engineers, and the Governor of a State enter into a joint agreement that the discharge of dredged or fill material in waters other than navigable waters or adjacent wetlands of such State should be regulated because of the ecological and environmental importance of such waters, the Secretary, acting through the Chief of Engineers, may regulate such discharge pursuant to the provisions of this section. Any joint agreement entered into pursuant to this subsection may be revoked, in whole or in part, by the Governor of the State who entered into such joint agreement or by the Secretary of the Army, acting through the Chief of Engineers.

"(g) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized to issue those general permits which he determines to be in the public interest.

"(h) *The discharge of dredged or fill material*—

"(1) from normal farming, silviculture, and ranching activities, including, but not limited to, plowing, terracing, cultivating, seeding, and harvesting for the production of food, fiber, and forest products;

"(2) for the purpose of maintenance of currently serviceable structures, including, but not limited to, dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments and approaches, and other transportation structures (including emergency reconstruction); or

"(3) for the purpose of construction or maintenance of farm or stock ponds and irrigation ditches,

is not prohibited by or otherwise subject to regulation under this Act.

"(i) The discharge of dredged or fill material as part of the construction, alteration, or repair of a Federal or federally assisted project authorized by Congress is not prohibited by or otherwise subject to regulation under this Act if the effects of such discharge have been included in an evnironmental impact statement or environmental assessment for such project pursuant to the provisions of the National Environmental Policy Act of 1969 and such environmental impact statement or environmental assessment has been submitted to Congress in connection with the authorization or funding of such project.

"(j) The Secretary of the Army, acting through the Chief of Engineers, is authorized to delegate to a State upon its request all or any part of those functions vested in him by this section relating to the adjacent wetlands in that State if he determines (A) that such State has the authority, responsibility, and capability to carry out such functions, and (B) that such delegation is in the public interest. Any such delegation shall be subject to such terms and conditions as the Secretary deems necessary, including, but not limited to, suspension and revocation for cause of such a delegation.".

NATIONAL CRUSHED STONE ASSOCIATION,
July 23, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The board of directors of the National Crushed Stone Association, meeting this date, strongly urge that the Senate Public Works Committee vote to support the Wright amendment, as passed by the House in H.R. 9560, in your meetings scheduled for July 27–28 on S. 2710. Adoption of this amendment, relating to the Corps of Engineers 404 permit program will be in the best interest of the country and at the same time provide reasonable and adequate protection for the environment.

The urgency of this matter is directly related to the numerous construction projects being delayed awaiting a section 404 permit. Your cooperation in bringing our position to the attention of all the members of your committee will be appreciated.

We urge that prompt action be taken on this matter so that the bill can be cleared to the entire Senate for an early floor vote.

Sincerely,

W. L. CARTER,
President.

NATIONAL ENVIRONMENTAL DEVELOPMENT ASSOCIATION,
Washington, D.C., July 28, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The National Environmental Development Association is pleased to submit "Statement of Riley S. Miles, Chairman—National Environmental Development Association to the Senate Public Works Committee Regarding Section 404, P.L. 92–500," for inclusion in the record of the July 27–28, Section 404 Oversight Hearing.

NEDA for some time has registered concern over the direction being taken by the Courts and the Corps of Engineers in regard to the interpretation and implementation of Section 404. We have shared these concerns with the appropriate groups and government agencies and were called before this Congress previously to testify on this issue in June 1975.

We again submit our views to you and ask your concurrence with the legislative solution to this problem which the House of Representatives has recently approved.

We stand ready to provide you with any additional assistance.

Sincerely,

RILEY S. MILES,
Chairman.

STATEMENT OF RILEY S. MILES, CHAIRMAN, NATIONAL ENVIRONMENTAL DEVELOPMENT ASSOCIATION, TO THE SENATE PUBLICS WORKS COMMITTEE, REGARDING SECTION 404, PUBLIC LAW 92–500

Mr. Chairman and members of the Committee, we appreciate your consideration of the views of the National Environmental Development Association (NEDA) with regard to the need for modifying and clarifying Section 404 of the Federal Water Pollution Control Act.

Unless this Committee and the Congress act now, the private property rights of millions of Americans are in jeopardy and the productive capacity of this nation is critically threatened.

Background information about our organization is provided in the form of our "fact sheet" which I ask to be printed in the record of this hearing following our testimony. Very briefly, NEDA is an alliance of many interests—industry, labor, farming and others—with a single purpose: to find ways to improve the environment without destroying the nation's economic system.

We have for some time registered our concern over the direction being taken by the Corps of Engineers toward regulation of virtually every body of water and every piece of land touched by water. On June 19, 1975—just a little over a year ago—I appeared before the Subcommittee on Water Resources of your Committee on behalf of our organization. At that time I urged action to overcome the effects of the court decision instructing the Corps to expand its dredge-and-fill permit authority beyond the navigable waters to all the waters of the United States. The Subcommittee chairman, Senator Gravel, told me that the Committee would be doing something about the Section 404 problem, and I promptly reported this to the members of our Association. Since then, we have avidly followed developments in this situation, and have responded with information and assistance when asked; and we are pleased now that, at this date, the Committee appears ready to consider legislative action to correct what is certainly an unnecessary, unintended set of circumstances.

Mr. Chairman, the current debacle involving the Corps of Engineers prompts our reiteration of a principle which, when it is neglected, produces subsequent long-term disarray. That principle, we suggest, is construction of law which minimizes unintentional results.

Senator Jackson of Washington, speaking at our annual meeting two years ago, alluded to a case-in-point which is close to our Association's basic interest. He said that there are times now when he simply does not recognize the original intentions of Congress in enacting the National Environmental Policy Act. The rules, the regulations, the authorities and their implementations residing in and flowing from the Executive Branch go far beyond—and often appear to depart almost willfully from—the Congressional expression in NEPA, and especially that expressed policy to "foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements."

The Environmental Protection Agency of course is the front-runner in what we might characterize as run-away use of Congressional legislation. And EPA is at the center of the problem which draws this Committee's attention.

It is obvious that EPA, certain environmental pressure groups and the courts have moved us into an administrative jungle where we have totally lost the original point of the 1972 water pollution control law.

Congress put Section 404 into the 1972 act specifically to keep the Corps' traditional authority over navigable waters separate from other provisions of the act. The section authorized the Corps to "issue permits for discharge of dredged or fill material into the navigable waters at specified disposal sites."

The Army, in April 1974, published regulations to carry out this section, defining "navigable waters" reasonably close to the intention of Congress.

The Natural Resources Defense Council—a group which has filed some 135 suits forcing government action (of which 10 arose from the 1972 water act and, of these 10, five have been resolved in NRDC's favor)—sued to bring about the District Court ruling in March 1975 that "navigable waters" in Section 404 means what it does for the rest of the act, namely, "the waters of the United States." EPA specified that this includes tributaries of navigable waters, all interstate waters, intrastate waters, rivers and streams which are used by interstate travelers, which yield fish sold in interstate commerce, or which are used by industries engaged in interstate commerce. In other words, all waters.

The Army then came out with its three-phase implementation program which is now at the threshhold of Phase II where, at least for the moment, thanks to Presidential action on Congressional appeals, it is holding.

In the past year there has been nothing but confusion about 404 authority. Farmers, cattle raisers, foresters, construction crews and other citizens are in continuing, increasing doubt about what can and cannot be undertaken—is this activity covered by 404 or isn't it? As has been pointed out to the Committee by other witnesses—and by Senators Domenici, Muskie and others—many activities have been held up while waiting to hear if 404 permits are required; in some cases, state governments require the same procedures as does the Corps, adding duplication of approvals and compounding the confusion.

The scope and limits of Phase I were not and are not now clearly drawn. But that phase is simple when it is compared to the phases to follow.

Unless this Congress takes steps to prevent it, the Corps will in less than 60 days now move the permit program into the primary tributaries of navigable waters, lakes and adjacent wetlands; and this time next year, there will be required Federal permits for dredge and fill materials entering any waters of the United States.

If this occurs, the unintended, confused circumstances of 404 will continue.

The appropriate correctional route was begun, we believe, in the House action on H.R. 9560, with the approach structured by Congressmen Breaux and Wright. This approach redirects the Corps of Engineers to the environmental protection mission intended by Congress in enacting the 1972 law. It again charges the Corps to guard against pollution from dredged or fill materials which impact on—or result from—maintenance of the nation's commercial waterways. But it exempts certain farm, forestry, ranching and other activities and it provides for delegation of 404 regulatory authority to states which request it. Essentially, the House bill tries to clear up confusion surrounding 404, to restore the perspective Congress intended, and to safeguard both the environment and property rights.

By acting favorably on this approach, Congress will lead the country out of the bureaucratic jungle which now characterizes the 404 program. Failure to act can result only in a Federal land use scheme with no state, local or individual input and minimum economic growth.

Thank you, Mr. Chairman and members of the Committee, for receiving NEDA's views in this vital issue.

WHAT IS THE NATIONAL ENVIRONMENTAL DEVELOPMENT ASSOCIATION?

NEDA was organized on April 18, 1973, in Washington, D.C., following more than a year's work by an ad hoc group of business, labor and government officials. The late Senator Allen Ellender of Louisiana, then chairman of the Senate Appropriations Committee, encouraged the organizers of NEDA with a 1972 statement which began: "We can and must find ways to improve our environment without destroying our economic system."

NEDA is a national association with members from every part of the country, from every segment of society. In NEDA are small and large companies in a wide range of interests, labor unions, trade associations, farmers, cattle raisers, land developers, water users, scientists, economists, environmentalists and many private citizens.

WHAT IS NEDA'S PURPOSE?

Articles of incorporation state NEDA's purpose to be to: "Seek, promote and foster the best methods for environmental protection that will allow the continued development of our manufacturing, agricultural, transportation and water potential necessary to the economic growth of the nation, and improvement of the standard of living of its people."

NEDA was founded on the belief that economic growth and environmental development are essentially compatible. It seeks to balance national needs in these respects.

HOW IS THIS PURPOSE FULFILLED?

1. Research and education.—NEDA's program promotes public and government recognition of the necessity for balancing national needs in decisions dealing with economic, energy and environmental factors. This program is guided by the Board of Directors, the Executive Committee and other committees. Results of volunteer and staff work include preparation of position papers, testimony to Federal and and State legislative bodies, publications and task force efforts often involving cooperation with other organizations.

2. Information and Publications.—A monthly newsletter, BALANCE; and a special compendium of information, EEE REVIEW, are distributed to Congressional and other government officials, to other opinion-shapers, and to the press. An annual report provides a summary of activities, articles drawn from annual and other conferences, lists of officers and board members and other information of interest to members and to the public. Special publications, including position papers, speech reprints, articles, NEDA testimony and the like are made available to members and to others.

3. Conferences and Meetings.—An annual National Conference in Washington serves as a public forum on balancing critical needs. Key Congressional and Administration officials participate with business, labor and association representatives in an examination of current issues.

NEDA's Annual Meeting is generally scheduled with the National Conference to facilitate member attendence. Officers and Board Members are elected, and other business is conducted. The Board of Directors meets at least once annually, with the Executive Committee convening regularly to represent the Board and to govern association affairs. Committees and Task Forces hold meetings at the call of their respective chairmen.

4. Special Activities.—Actions of the Association are regularly reported in BALANCE and are summarized in each year's report to the membership. In addition, quarterly "Recent Activities" papers are sent to the membership and others.

NEDA's Triple E Award recognizes Congressmen, scientists, writers and other individuals whose public statements and work reflect an understanding of the need for balance in key issues.

In addition, through NEDA initiative, work is coordinated with numerous other national, regional and state associations whose interest in "triple E" issues coincides with NEDA's. A number of these organizations are NEDA members and are represented on the Board.

The Association has received more than 100 letters from members of Congress and others, expressing interest in NEDA, endorsing the "Campaign for Balance." More than 50 publications have written about NEDA and its activities since April 1973.

JOINING NEDA AND THE CAMPAIGN FOR BALANCE

There are two categories of membership—group (which includes companies, unions, associations, state authorities, etc.) and individual.

The Board establishes the dues structure for each budget year. Current dues schedule for individual members (reserved for those not affiliated with a company or group for membership purposes) ranges from $10 to $100.

Company, union, association or other group memberships are in five categories, depending upon level of contribution, ranging from $100 to $10,000, with full membership requiring a minimum of $500. All dues and contributions are tax-deductible.

For more information, write NEDA at the address on the other side of this page; or call (202) 638–1230.

NATIONAL FARMERS UNION,
Washington, D.C., July 22, 1976.

Hon. MIKE GRAVEL,
U.S. Senate,
Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR GRAVEL: The attached memorandum is being sent to all members of the Senate concerning Farmers Union's position on S. 2710 which is pending before the Senate, and which contains language under Section 16 which

resolves the controversy over the jurisdiction of the Army Engineers over agricultural waters.

We are in full support of this legislation, and we ask that you include both this memorandum and the attached memorandum to members of the Senate, in the record of hearings of the Public Works Subcommittee.

Sincerely,

REUBEN L. JOHNSON,
Director of Legislative Services.

Enclosure.

JULY 22, 1976.

Memorandum To: All Members of the Senate.
From: Reuben L. Johnson, Director of Legslative Services.

Farmers Union urges your support for S. 2710, which has been passed by the House and is now pending before the Senate. This bill amends the Water Pollution Control Act in one respect which is of great importance to the agriculture community.

The bill has in it, under Section 16, clarifying language concerning the jurisdiction of Army Engineers over agricultural activities affecting public waters. This language, which is referred to as the Wright Amendment, would help to clarify what has become a very confused issue, and the bill merits your support.

NATIONAL GRANGE,
Washington D.C., July 15, 1976.

Hon. EDMUND S. MUSKIE,
Chairman, Subcommittee on Environmental Pollution, Committee on Public Works, U.S. Senate, Washington D.C.

DEAR MR. CHAIRMAN: The National Grange is a general farm organization, comprised of producers of most major commodities, rural, suburban, and urban residents. The membership represents individual family members interested in preserving the family farm as an integral part of agricultural production and the development of rural communities where services will be available in parity with metropolitan areas.

The National Grange has supported conservation of our natural resources for over 100 years and was among the original supporters of organized government efforts to bring about constructive measures to enhance the environment. This included support of Public Law 92–500, the Federal Water Pollution Control Act Amendments of 1972.

The intent of this law had far-reaching implications on the way of life in America, a way of life which in a number of ways had been detrimental to everyone's best interests. There was a lot of cleaning up to do and it called for drastic action. The action is understandable when the impact and cost can be assessed against a city or a specific industry but the lines become fuzzy when these actions are directed against individuals, their livelihood and their personal property rights.

It is clear from the law that we want to stop dumping pollutants into our rivers, streams, lakes and ponds. Prohibitions were spelled out in various sections of the law, namely Sections 301 and 402. Because dredge spoil and fill were pollutants and since dredging of navigable waters for interstate commerce had traditionally and logically been a Corps of Engineers responsibility, Section 404 was added to give the Corps authority to control through permits this very significant activity.

By defining navigable waters in Section 502 to include the world, the courts found that the Corps should initiate a permit system under 404 as far-reaching as the 502 definition. As a consequence, the Corps of Engineers issued interim final regulations which threaten to involve the United States Army in the most minute and innocuous type of farm operation.

Not only is this unwarranted interference in farm operations, it is a case of the taking of private property without just compensation.

Exempting normal farming operations from the Corps program is not a satisfactory answer. Nor is the concept of deleting Section 404 from the law. The only satisfactory solution is to specifically limit the Corps of Engineers to a role of controlling the deposit of pollutants brought about through dredge and fill operations in navigable waters, navigable waters being those waters where interstate commerce is conducted.

The "Wright amendment" which is embodied in S. 2710 accomplishes this purpose and the National Grange strongly supports its passage.

The National Grange is in favor of national legislation specifically designed to protect wetlands but it vehemently opposes the attempt to use a water quality law to bring about this end.

Thank you.

Sincerely,

JOHN W. SCOTT,
Master.

NATIONAL LIVESTOCK FEEDERS ASSOCIATION,
Omaha, Nebr., July 27, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Enclosed is the statement of the National Livestock Feeders Association regarding oversight hearings on Section 404 of the Federal Water Pollution Control Act—Dredge and Fill.

It is the position of the NLFA that the interim final regulations, "Permits for Activities in Navigable Waters or Ocean Waters," Part 209, Administrative Procedure, 40FR 31320–31344 July 25, 1976, have created considerable confusion and have extended the authority of the U.S. Corps of Engineers much further than Congress intended in passing the Act.

The Association strongly recommends that Congress adopt appropriate legislation to absolve the situation and to provide the Corps with clear-cut jurisdictional boundaries consistent with its primary responsibility.

It is requested that you enter the Association's statement in the hearing record.

Sincerely,

FRANK ARNEY,
Director of Association Services.

Enclosure.

STATEMENT OF FRANK ARNEY, DIRECTOR OF ASSOCIATION SERVICES, NATIONAL LIVESTOCK FEEDERS ASSOCIATION

Dredge and Fill

Permits for Activities in Navigable Waters or Ocean Waters, Part 209—Administrative Procedure, 40 FR 31320-31344, July 25, 1976, as applied to Sec. 404, Federal Water Pollution Control Act.

* * * * * * *

The National Livestock Feeders Association submits that the interim final regulations, referenced above, overextend the authority of the U.S. Corps of Engineers, and have resulted in considerable confusion and serious misinterpretation of Sec. 404 of the Federal Water Pollution Control Act. The Association strongly recommends Congressional action to provide clarification, most importantly of the term "navigable waters," to limit the Corps to its primary area of responsibility, namely, the protection of navigation.

"RESPONSIBILITY OF CORPS OF ENGINEERS"

The primary function of the Corps of Engineers is protection of navigation. To cast the Corps in the role of protecting the environment is a significant change in that function and clearly not the intent of Congress.

This was, as a matter of fact, specified by Senator Edmund Muskie, chief sponsor of S. 2770 which became P.L. 92-500, the "Federal Water Pollution Control Act Amendments of 1972." In explaining the bill to his colleagues, Senator Muskie said, "The mission of the Corps of Engineers is to protect navigation. Its mission is not to protect the environment." This statement by Senator Muskie makes it clear that Congress did not intend for the U.S. Corps of Engineers to have permit authority as far reaching as that provided for in the interim final regulations. To assume otherwise makes the grave error of relinquishing to an administrative branch of the Federal Government the power of legislating and, in addition, exercising a measure of land use control without land use legislation.

In this connection, the Committee's attention is also drawn to the specific language of Section 404 of P.L. 92-500. Sec. 404(b)(1) calls for permits to specify disposal sites with guideline criteria comparable to those which apply to the territorial seas, the contiguous zone and the ocean. Sec. 404(b)(2) says that where the application of such guidelines alone would prohibit the specification of a site the economic impact of the site on navigation and anchorage shall be applied. The words which have been underlined for emphasis, "territorial seas," "contiguous zone," "ocean," "navigation," and "anchorage" are not words which direct, or even infer, the Corps involvement in other than those waters over which the Corps has had traditional jurisdiction.

Consequently, the Association urges Congress to take the appropriate action to restrict the U.S. Corps of Engineers to its proper sphere of responsibility and function.

"THE NEED TO CLARIFY THE TERM NAVIGABLE WATERS"

The NLFA views injecting a branch of the Military into an area of authority alien to its traditional responsibility as a serious mistake, Specifically, the Association is disturbed over the ill-founded definition of the term "navigable waters" as used in the interim final regulations.

Using the word "navigable" in referring to many lakes, rivers, streams, and other water impoundments is confusing and illogical because it is contrary to the understanding most people have of the word.

As a result of this single term the interim final regulations are confusing, complex, too openended, too broad, and too subject to individual interpretation.

The implications of the rules and regulations as they now stand would be unduly burdensome, time consuming and expensive for farmers. For consumers the imposition of the rules and regulations would result in higher food costs

"NLFA RECOMMENDATION"

Congress can favorably resolve the situation by taking appropriate legislative action to clarify the term "navigable waters" as it is commonly understood and as it applies to the traditional definition and scope of authority of the Corps.

Efforts to reach a solution administratively will only add to the confusion, prolong a final and satisfactory decision, result in additional and unnecessary expense, and will face the likelihood of being contested in the Courts.

The National Livestock Feeders Association strongly recommends that Congress act promptly to amend pending legislation to include language similar to that offered by Congressman Wright of Texas as an amendment to H.R. 9560 which was passed by the House on June 3, 1976. (H.R. 9560 was subsequently vacated and S. 2710, a similar Senate-passed bill, was passed in lieu after being amended to contain the language of the House bill as passed.)

The entire amendment is to be found in 122CR, June 3, 1976, H5267: "Navigable waters" are defined as ". . . all waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark (mean higher high water mark on the west coast)."

During the colloquy in the House on the Wright amendment, Congressman Breaux of Louisiana, who had previously offered an amendment similar to that of Congressman Wright, provides insight into what the amendment would do as regards the definition of "navigable waters." (See 122CR, June 3, 1976, H5271) Mr. Breaux said, "It simply keeps a Section 404 Corps of Engineers permit requirement for any dredge or fill activities that are being done in navigable waters, and it says that 'navigable waters' are waters that are navigable now or waters that are susceptible of being made navigable by reasonable improvement."

Such language provides the needed clarification of the term "navigable waters" and sets up specific boundaries for the Corps, allowing it to continue to function effectively and efficiently in its primary mission of navigation protection.

Directly related to the confusion created by the term "navigable waters" is another term, "adjacent wetlands," which also needs clarification. The language offered by Mr. Wright in his amendment provides the necessary definition as ". . . (A) those coastal wetlands, mudflats, swamps, marshes, shallows, and those areas periodically inundated by saline or brackish waters that are normally characterized by the prevalence of salt or brackish water vegetation capable of

growth and reproduction, which are contiguous or adjacent to other navigable water subject to the ebb and flow of the tide, and (B) those freshwater wetlands including marshes, shallows, swamps, and similar areas that are contiguous our our adjacent to other navigable waters, that support freshwater vegetation and that are periodically inundated and are normally characterized by the prevalence of vegetation that requires saturated soil conditions for growth and reproduction.

Again, Mr. Breaux provides clarification. He said, "Specifically, in addition, it includes adjacent wetlands, and it defines what 'wetlands' are. It is a very broad definition. It means coastal wetlands, mudflats, swamps, marshes, shallows, and even those areas that are periodically inundated by saline or brackish waters. So, specifically it says that permits will be required so that those areas will be protected."

Again, in the House language very definite boundaries of responsibility and authority have been established, and confusion has been eliminated, but necessary protection has been provided.

Finally, then, in the scheme of things, we come to the role of agriculture. The production of food and fiber for domestic use and exports is recognized universally as being extremely important to the economic well-being of this nation. Consequently, Sec. (h)(l) and (3) of the amendment providing that normal farming will not be "prohibited by or otherwise subject to regulation under this Act" is an important and valuable part of the amendment and should definitely be retained.

We would strongly recommend that the committee add such an amendment to pending legislation, such as S. 3037.

Such action would provide needed clarification through Congressional action, relieve agricultural activities from permit regulations, but still provide protection to those areas which need protection and which were intended to be covered by the Act in the first place. The NLFA strongly recommends and urges that the Committee take such action.

STATEMENT OF THE NATIONAL PARKS AND CONSERVATION ASSOCIATION

Mr. Chairman, and other distinguished members of the Committee:

The National Parks and Conservation Association appreciates the opportunity to present this statement on the implementation of Section 404 of the 1972 Federal Water Pollution Control Act (FWPCA). The NPCA was founded in 1919 by Stephen Mather, the first Director of the National Park Service as an independent, citizen-based conservation organization to promote and protect the national parks and monuments of the U.S. This statement is being presented on behalf of NPCA's nearly 50,000 members nationwide in strong support of the responsibilities given the Army Corps of Engineers in Section 404 Permit Program, which insures (through regulation of dredged and fill material discharges) the chemical and biological integrity of all the waters of the U.S.

The U.S. redirected its national water resources conservation policy toward acceptance of increased responsibility for protecting the nation's aquatic resources, with the 1972 Amendments to the FWPCA. It is the opinion of NPCA that the recent shuffling of the 404 Permit Program is irresponsible. Lack of action by the "decision makers" neglects the commitments of the FWPCA of 1972, that could lead to permanent destruction of the character of our valuable inland water resources.

NPCA feels that joint Federal and State control over the indiscriminate dumping of polluted materials into small streams, river swamps and coastal marshes as well as our major navigational waterways, is essential to their preservation. Broad geographical impact analysis can be provided by the Corps of Engineers to prevent the regulation of unharmful or insignificant discharges that when evaluated state by state may not be related to the integrity of the nation's aquatic ecosystem as a whole. For example, the Corps' Chesapeake Bay Study is being aided by a 14 acre full scale, working hydrolic model of the entire bay and its estuaries. The Corps' Baltimore District is conducting a study of the Bay in its entirety as one ecological entity, without the state line restrictions, that force artificial sectioning of the Bay. Respect for the nation's inland water resources as a whole is vital to their best management and conservation.

It is the opinion of NPCA that within the last three or four years the Corps has shown a responsive change in attitude toward development of an environmental ethic that has led to their recognition of the value of our noncommercial waterways. First they began hiring environmentalists to prepare impact statements to

assist those making the final decisions to meet the challenges of the 1970 National Environmental Policy Act. Then the Corps' 1975 fall issue of "Water Spectrum", set two new environmental considerations as follows:

1. Increased use of nonstructural flood control approaches.
2. Creation of wetlands instead of dam construction to store excess waters.

Finally on April 16th of this year The Corps denied a dredge and fill permit for development of 2,039 acres of mangrove swamps on Marco Island, Florida. NPCA hopes this decision sets a new "environmental response" precedent for the Corps.

The Corps presently holds responsibility for maintenance of our navigational inland waterways and flood control measures that entail acquiring floodplain areas. Inclusion of the 404 Permit Program, among existing Corps responsibilities, enables the Corps to develop a comprehensive maintenance process to protect the physical integrity of all inland aquatic systems, including wetlands, encompassing environmental assessment and local state input.

NPCA feels the 404 Permit Program provides the opportunity for direct state involvement in water resource management through joint Federal/State permit processing. This joint processing allows the state to deny a Sec. 404 permit by means of its own state water quality certification. In addition, provision was made for implementing approved state coastal zone or wetland management permit programs, when they exist, with precedence as long as no conflict with the broader national water resource protection interest existed.

However, NPCA does take strong exception to the recent Breaux-Wright Amendments to the reworked Water Pollution Control Act presented by the House Public Works Committee as H.R. 9560. These amendments restrict the scope of the Corps Permit Program, leaving much of our nation's inland waters and wetlands unmanaged and therefore unprotected. Specifically exempt under the Breaux Amendment are those rivers, streams and lakes not presently used to transport interstate commerce. The Wright Amendment excludes from Sec. 404 jurisdiction the environmental review of federal projects. This is not in keeping with the original protection commitment within the FWPCA, P.L. 92-500. The Breaux-Wright Amendment depicts a short-sighted and irresponsible approach toward resource protection.

It is NPCA's opinion that our wetlands and non-navigable waters are of vital importance to the integrity of the nation's water resources, because:

1. Two-thirds of the economic value of the U.S. commercial fish and shell fish production is dependent on wetlands-based food chains.
2. Wetlands provide vital nesting, rearing, and spawning habitats for sportfish, birds and other wildlife.
3. Wetlands act as natural buffers against storm and flood damage.
4. Wetlands act to recharge the aquifers from which many public drinking water supplies are drawn.

As with many of our environmental resources, the benefits of preserving our wetlands has not been realized until at present one half of these irredeemable resources have been filled and destroyed. After these wetlands are filled and developed the problems of protecting the structures plague the unknowledgeable consumer. Often wetland development results in serious damage to the quality of nearby water resources. Ground runoff carrying man-made waste, sediment, fertilizer and septic effluent enter water systems, no longer naturally protected by the built in filter systems existent in wetland ecosystems.

In light of the above, NPCA opposes the acceptance of any national commitment that falls short of the responsibility to manage and protect the quality of the waters of the U.S. for municipal and industrial water supply, recreational use, and fish and wildlife habitat.

Therefore, NPCA strongly opposes the existing Breaux-Wright Amendment that denies responsibility for full protection of "all the waters of the U.S." We further urge that the Sec. 404 Permit Program, as established in the 1972 FWPCA be administered by the Corps of Engineers with enouraged joint state control.

ALBUQUERQUE, N. MEX., *July 29, 1976.*

Senator JENNINGS RANDOLPH,
U.S. Senate, Dirksen Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We ask you to prevent any damaging amendments to be added to Public Law 92-500 section 404. The present law with strict enforcement is the best law we could possibly have. The damaging amendments

could leave 60,000,000 acres of wetlands unprotected. We object to the possibility of allowing the individual States to be responsible for the enforcement of this law. We request that our comments be read into the hearing record.

Sincerely,

NICK AND KRISTINA NICOLAUS.

FORT PIERCE, FLA., *July 26, 1976.*

Senator JENNINGS RANDOLPH,
Chairman of Senate Public Works Committee, Senate Office Building, Washington, D.C.

The North St. Lucie River Water Management District, Fort Pierce, Fla. respectfully encourages your active support in passage of S. 2710 (Breaux-Wright amendment) for the protection of States rights, Prevent Federal land use control, and stop bureaucratic regulations and court decisions from usurping congressional authority. Request this notice be made a part of the official hearings record.

W. A. DUN,
President, North St. Lucie River Water Management District.

NORTHERN VIRGINIA CONSERVATION COUNCIL,
Annandale, Va., July 21, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, U.S. Senate Public Works Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing on behalf of the Northern Virginia Conservation Council of which I am president to express the concern of our organization about S. 2710—Amendments to the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500).

As you are aware, this bill was passed as purely authorizing legislation by the Senate in December. Recently, however, this bill has been amended by the House of Representatives to add a number of substantive sections. Several of the substantive sections added to S. 2710 by the House of Representatives have the potential to result in environmental damage and seriously weaken important federal programs in the area of water pollution control. Specifically, we are concerned that the following sections are not in the public interest:

1. Section 16, Permits for Dredged or Fill Material.—This section would strip federal protection from a substantial portion of the wetlands of the United States. Our wetlands are valuable and rapidly diminishing natural resources. They function as natural systems for water purification and flood control and as breeding grounds and habitat for fish and shellfish. In so doing they play an irreplaceable role in the preservation of the physical, chemical, and biological integrity of our nation's waters. They are a vital link in the food chain for fish, wildfowl and other birds, and mammals, including man. The wetlands do this at no cost to the taxpayer, in contrast to the billions of dollars that are forecast as the costs of constructing facilities to perform some of these same functions. Thus, it is not only in conflict with the goals of P.L. 92-500 but also imprudent from a fiscal perspective for Congress to permit these natural areas to be eliminated by dredging or filling.

We are aware that substantial objections to the 404 program have been raised. We are not insensitive to those who complain of an unfair burden of regulation. However, we believe that, if the program were allowed to continue on its present course, those who complain now will find that the latest regulations promulgated by the Army Corps of Engineers place very little regulatory burden on the average farmer, rancher, or logger. Thus, we do not feel that any change in the law is needed at this time. We would not, however, oppose an approach similar to that embodied in an amendment proposed by Senator Gary Hart of Colorado which would give specific statutory authority to the general permit program proposed by the Army Corps. This would exempt specific types of activities from regulation but would not tamper with the scope of the nation's wetlands to which pollution control legislation applies.

We urge you to oppose Section 16 of S. 2710 and if a chance is deemed necessary to support the Hart amendment.

2. Section 12—Section 213, Certification.—This new section would allow EPA to delegate to the states approval authority for construction grant applications.

We are not opposed to decentralization of the construction grants program, but we do feel that this amendment does not contain sufficient safeguards to insure that only qualified states receive delegations and that the quality of the program will be maintained after delegation. In addition, the amendment does not make clear that important NEPA protections and citizen suit rights will be protected should delegation take place.

We urge you to work for improvements to this section.

3. Section 12—Section 214, Determination of Priority.—This new section would give the states freedom to spend federal grant funds for collector sewers to the exclusion of treatment facilities which are needed to clean up existing pollution problems. We believe that the intent of P.L. 92-500 was to deal with existing pollution problems, not to fund construction of collector sewers which frequently stimulate unplanned growth and thus create new pollution problems. This section would give the states the freedom to reverse these priorities.

We urge you to work for its deletion from the bill.

4. Section 19, Rule and Regulation Review.—This would allow a Congressional veto of regulations promulgated in response to clean water legislation. This would create uncertainty and delay in Federal regulatory programs that are already characterized by too much delay. It is especially threatening because either chamber of Congress could veto regulations without concurrence of the other chamber. In an area such as water pollution control, where there are considerable differences between the two chambers with respect to both philosophy and detail, a veto exercised by one chamber alone would open the door for agreements made in conference to be subverted by continued unicameral rejection of regulations. We believe that the Constitution has provided for a workable system of checks and balances both within the Congress and between the Congress and the executive. The proposed Rule and Regulation Review Amendment would have an unbalancing effect on both these relationships. What we need now is creative thinking which encourages regulatory programs to move forward expeditiously not the addition of new impediments. We urge you to work for the deletion of this section from the bill.

We note that the Public Works Committee has scheduled hearings on the Dredge and Fill Permit program on the 27th and 28th of this month. The Committee is to be congratulated for its decision to hear public testimony on this important issue. However, the Committee should recognize that there are other important issues raised in S. 2710 which have not been the subject of hearings in the Senate, and, in some cases have not been the subject of hearings in the House. Some of these have been mentioned above.

We urge you not to act on any amendments to water pollution control legislation without taking time to hold hearings on all the issues. Many of the issues which are raised by S. 2710 directly relate to findings in the report of the National Commission on Water Quality. Since Congress is committed to taking up that report and proceeding with "mid-course corrections" in the water pollution control program next year, there is no justification, in our opinion, for rushing through a bill this year without adequate hearings. If the legislative calendar is too crowded to permit full hearings this session, the only responsible course of action is to defer action until the new Congress comes in session in January.

Sincerely,

THOMAS E. GAUSE, *President.*

MANDEVILLE, LA., *July 14, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Would you please include this letter as part of the public hearing record of July 27-28, 1976 on Section 404 of the Clean Water Act.

Congressman John Breaux, aided by an unquestioning media, is pulling off a terrible coup that will cripple Louisiana for generations. And very few people understand what he has done.

You should know that the newspapers in Louisiana have virtually echoed the misleading charges of the Corps of Engineers and the Secretary of Agriculture in their campaign to shuck off an unwanted responsbility for protection of the nation's wetlands. It was a simple task to arouse the fears of Louisiana farmers that Section 404 would prevent them from digging a stock pond on their own property. It has been virtually impossible to lay those fears to rest because no federal agency or respected political figure has had the courage to speak the facts.

In my opinion, the facts are that the small farmers are being used as dupes for business interests who reject environmental regulation in the interest of a quick buck. This, I believe, explains the strange silence of many politicians on this issue.

I urge that your committee address what problems may exist in Section 404 by adopting the Hart-Cleveland Amendment. Doing this would avoid "throwing out the baby with the bath water". In the coming years as the oil and gas industries abandon Louisiana in search of more productive areas, Louisiana people will turn more and more to the products of their renewable wetlands. If these wetlands have been turned over by the Congress of the United States to exploiters who have left them a ravaged wasteland, a lot of people will suffer.

Many people in our state are beginning to reject the mentality that tells us "If it makes money for someone, it's good." We are starting to ask the question "Who is making the money and who is paying for it?" All too often we are finding out that there are a privileged few making the money and the rest of us taxpayers are footing the bill. It seems plain that the Wright-Breaux Amendment is designed to favor certain private interests while removing desperately-needed controls over resources which benefit all the people.

Sincerely,

JOAN OSBORNE.

WASHINGTON, D.C., *July 21, 1976.*

Hon. JENNINGS RANDOLPH,
U.S. Senator, Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: I request that the contents of this letter be read into the record of the committee hearings on the various proposals to amend Section 404 of Public Law 92–500.

I am writing as a New Mexico citizen concerned with the future of New Mexico's wetlands. Before Section 404 of the Federal Water Pollution Control Act became effective in New Mexico on July 1, 1976, the people of New Mexico had no mechanism to insure the protection of wetlands. Since July 1, any deposition of spoil material in major tributaries of navigable waters and their associated wetlands requires a permit from the Corps of Engineers. The Rio Grande, Pecos River, San Juan River, and other river systems in New Mexico all have wetlands, although much diminished by man's alterations.

The permit process has already been effective in slowing down the rate of wetlands loss. The first permit application, applied for by the New Mexico Highway Department, originally would have resulted in the filling of part of a 14 acre wetland, and the cutting in two of the remainder. Several acres would have been destroyed. After consultation with the resource agencies, and public input from citizens, the Highway Department modified the project to include exchange of water between the two wetlands on each side of the proposed road, and purchase of 5 acres to be managed jointly by the Highway Department and Department of Game and Fish.

The argument that the Section 404 permit program is causing or will cause a hardship on farmers in New Mexico is completely unfounded. The permits thus far reviewed in this state have not related to farming activity. Very few, if any, permits will relate to legitimate farming practices. The permit program will, however, be effective in controlling the drainage of wetlands simply to change the land use without examining the costs of such action to the American people.

The Corps of Engineers has been able to administer the program thus far with the minimum of delays. The program is manageable, as evidenced by the success of the program in New Mexico so far.

An amendment to Section 404 has been adopted by the House which would remove Corps jurisdiction from major tributaries of navigable waters. If the amendment were to be adopted by Congress, the protection presently afforded wetlands in New Mexico would be removed. Wetland destruction would continue unabated and the Congress would have to take the blame for it.

I urge you to consider the impacts of any amendment to Section 404 and vote no to any measure which would emasculate the only and best tool that the people of New Mexico have for protecting their wetland resource.

Sincerely yours,

ROBERT D. PACIFIC,
Albuquerque, N. Mex.

PACKER RIVER TERMINAL, INC.,
St. Paul, Minn., July 26, 1976.

Subject: Oversight hearings section 404 permit program.

SENATE PUBLIC WORKS COMMITTEE,
Dirksen Senate Office Bldg.,
Washington, D.C.
(Attention Senator Jennings Randolph, Chairman).

GENTLEMEN: The attached brochure generally describes the nature of Packer River Terminal's proposed development in the metropolitan Twin Cities area. This multi-million dollar development has been regularly and systematically stymied by the maladministration of present Section 404 Guidelines by the Corps of Engineers District Headquarters in St. Paul.

I will not bore you with the details of our relationship with the Corps, locally, except to state that they have done their utmost to delay this subject development on the premise that the "404 Guidelines" require the call for an EIS—this after negotiations and mitigation which dates back to June 1974.

Packer has received appropriate permits and approvals from all other affected agencies, save two: EPA and the Corps. Approvals include: Minnesota Pollution Control Agency; Minnesota Dept. of Natural Resources; Minnesota Historical Society; U.S. Fish and Wildlife Service; City of South St. Paul, Minnesota; and Minnesota Environmental Quality Council.

Packer has agreed to dedicate some 30 acres of its 120-acre tract to the public, and to improve this area for public use.

The City of South St. Paul is an Economically Depressed Area pursuant to designation by the Economic Development Administration (EDA) of the Department of Commerce.

The site of the proposed development is the location of a former Boise Cascade paper warehouse and terminal vacated in 1967. The facility has served no useful purpose since that date, and has been declared a blighting influence to the development of the proximate area, by the City officials.

The Corps of Engineers (St. Paul District) and EPA officials (from the Chicago Regional Office) have drawn an arbitrary "404 line on our site plan, and have adamantly refused to negotiate its adjustments. This refusal on their part is in spite of local and state approvals; in spite of Packer's good-faith efforts to offer sound mitigation proposals; and is contrary to the very spirit and intent of their regulations.

I have indicated the Corps/EPA "404" line on the site map on the second page of the attached brochure. The solid line inked on the map indicates the EPA/Corps 404 line. The dashed line indicates our proposed mitigated 404 line. Packer has already agreed to dedicate the 30-acre parcel, on the river, to the public, as noted on the site map.

Corps and EPA officials are using the EIS procedure as a means to delay and obstruct the project, after over two years of negotiations and meetings, and after having issued a Section 10 Permit to construct the barge slip.

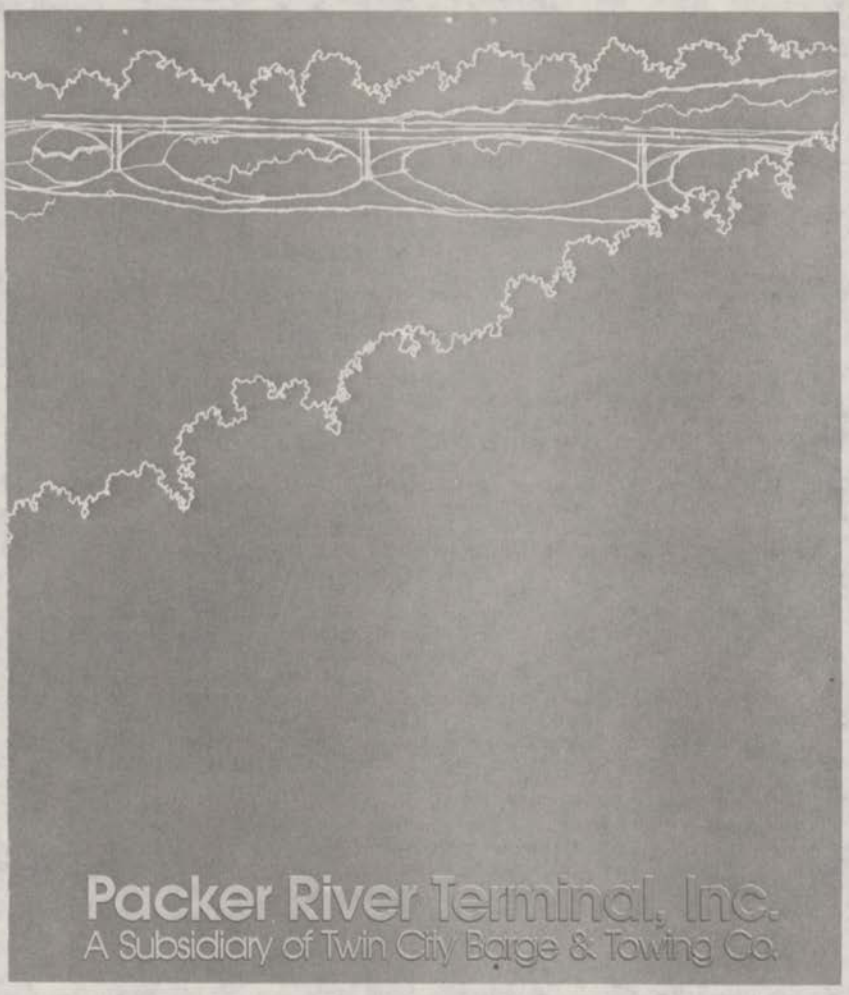
It is this sort of situation which is causing the gradual erosion of the initiative of private industry. We can find ways to deal with laws, guidelines, and regulations which deal with matters of the public interest—but it is an impossibility to deal with public officials who substitute ambivalence for decisiveness; and who render their own adaptations and interpretations of laws, regulations, and guidelines, to satisfy their personal whims; to circumvent the need to make a decision; or to obstruct or delay a project to the point of ultimate bankruptcy.

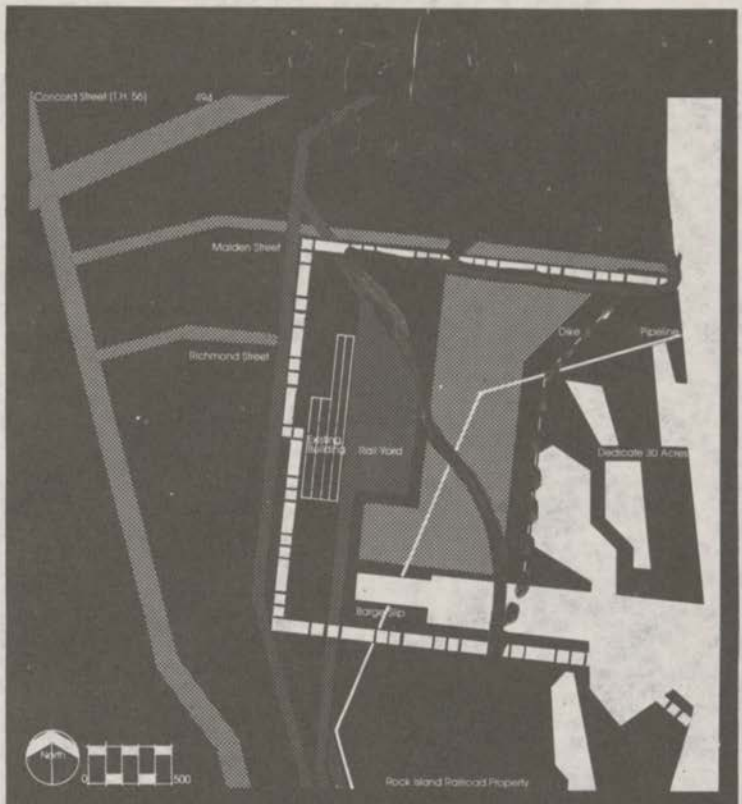
I offer to discuss this matter, in detail, at the convenience of the Committee, or its staff. I genuinely apologize that we must be forced to bring issues such as these to your forum; yet it is imperative that you understand the ramifications of the 404 Permit Program as presently administered. We have expended over $600,000 in our efforts and stand to lose almost half of our land in the process. If it happens to us, for a portion of our property which certainly serves no significant public purpose, now or in the future, then it will happen to others. There is no balance to such an approach, and the guidelines and regulations will be nothing more than a dictate to forestall economic development.

Respectfully yours,

THOMAS J. MCMAHON, P.E.,
President.

Attachment.

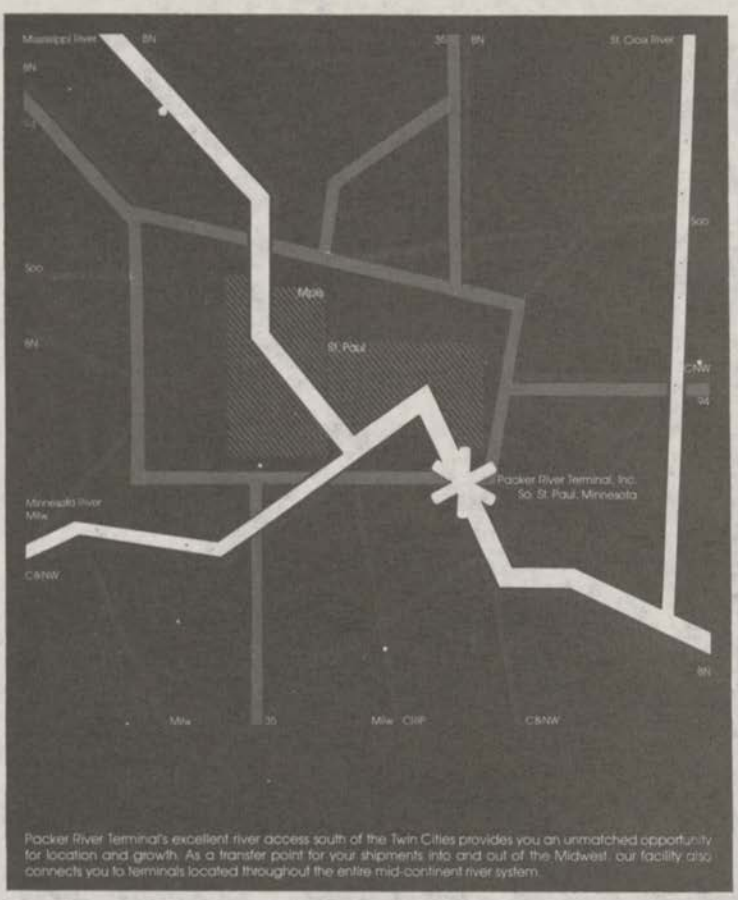

Packer River Terminal, Inc.
A Subsidiary of Twin City Barge & Towing Co.



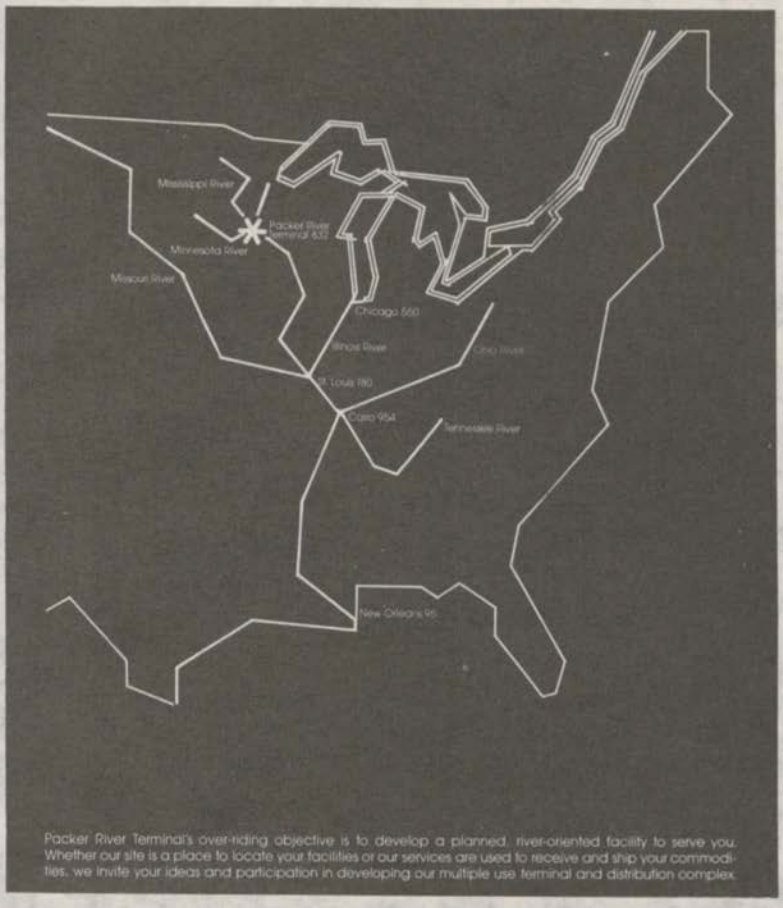
Packer River Terminal's 90 acre site is located at mile 832 on the upper Mississippi and within the Minneapolis-St. Paul Metropolitan area. Your commodities can be transferred quickly and smoothly utilizing the following terminal services.

2100' x 250' barge slip
152,000 sq ft building
2,500 sq ft maintenance building
5 ton overhead crane

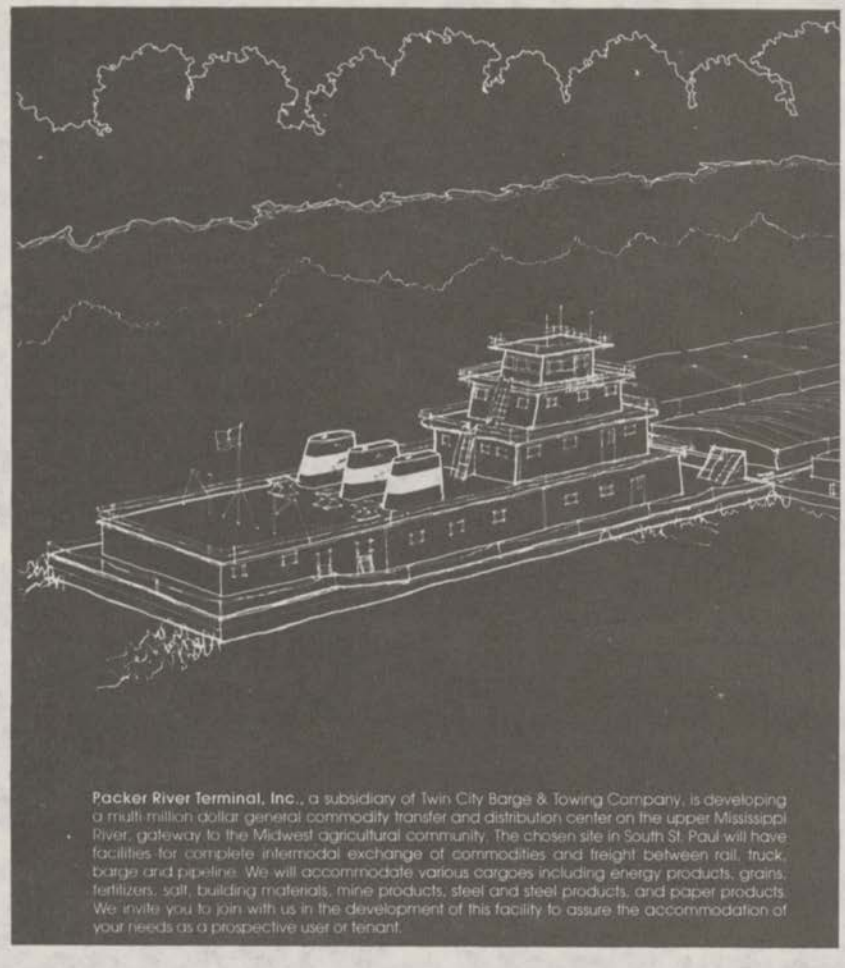
Utilities – water, gas, electricity
Direct access to Interstate 494
11 + acres of surfaced staging area
Direct access to five railroads



Packer River Terminal's excellent river access south of the Twin Cities provides you an unmatched opportunity for location and growth. As a transfer point for your shipments into and out of the Midwest, our facility also connects you to terminals located throughout the entire mid-continent river system.



Packer River Terminal's over-riding objective is to develop a planned, river-oriented facility to serve you. Whether our site is a place to locate your facilities or our services are used to receive and ship your commodities, we invite your ideas and participation in developing our multiple use terminal and distribution complex.



Packer River Terminal, Inc., a subsidiary of Twin City Barge & Towing Company, is developing a multi-million dollar general commodity transfer and distribution center on the upper Mississippi River, gateway to the Midwest agricultural community. The chosen site in South St. Paul will have facilities for complete intermodal exchange of commodities and freight between rail, truck, barge and pipeline. We will accommodate various cargoes including energy products, grains, fertilizers, salt, building materials, mine products, steel and steel products, and paper products. We invite you to join with us in the development of this facility to assure the accommodation of your needs as a prospective user or tenant.

WINTER HAVEN, FLA., *July 21, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

(For the record of the hearing of July 27–28, on Section 404 of the Clean Water Act.)

Please try to prevent any changes to this Act until all three phases have been tested. There has not been time to see how it works. We must protect our water.

Thanks.

IRA A. PARKS.

WINTER HAVEN, FLA., *July 21, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

(For the record of the hearing of July 27–28 on Section 404 of the Clean Water Act.)

I urge the Committee to retain '404' in it's present form without weakening amendments.

EVELYN C. PARKS.

CEDAR CREST, N. MEX., *July 21, 1976.*

Hon. JENNINGS RANDOLPH,
U.S. Senator,
Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing this letter on the occasion of your committee hearings on the various proposals to amend Section 404 of Public Law 92–500. I request that the contents of this letter be read into the record of the hearings.

It is my strong conviction that Section 404 as it now stands is the best single piece of legislation in existence for the protection of our nation's wetlands. None of the other federal or state legislation has a credible record of slowing the rapid destruction of wetlands going on at this very minute around the country.

I have had the privilege of participating in the administration of Phase II of the Army Corps implementation of Section 404. So far there have been about ten of these permit applications in the State of New Mexico which have required inputs from various agencies and individuals. To my knowledge none of these have created unadministrable problems for the Corps or undue hardships on the applicant. Furthermore, I do not know of any circumstances in New Mexico where implementation of either Phase II or Phase III would adversely affect the normal operation of farms or ranches. I think these fears both here and elsewhere in the nation are greatly exaggerated.

I, therefore, would strongly oppose any change that would weaken the effectiveness of Section 404.

Sincerely,

JOHN C. PETERSON.

BALTIMORE, MD., *July 20, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: This statement is with reference to recently passed H.R. 9560, now renumbered S. 2710, hearings on which are to be held July 27–28. This bill apparently guts several sections of the Clean Water Act, and contains the Wright-Breaux Amendment that excludes most wetlands from protection under Section 404 and cuts back controls over the nation's waters under the 1899 Rivers and Harbors Act.

May I respectfully urge your support of the Hart amendment to the Clean Water Act and your opposition to S. 2710, especially to the Wright-Breaux Amendment contained therein.

With all the Democratic emphasis on the restoration of the quality of life in this country and the protection of its invaluable resources, it would seem strange that a bill should be passed by a Democratic Congress that does neither.

Kindly consider this statement as testimony to be included for the record of the hearing of July 27–28, 1976, on Section 404 of the Clean Water Act.

Sincerely and respectfully,

JAMES C. PINE.

LINVILLE, N.C., *July 24, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Wetlands are too valuable to waste. They are valuable in many ways, not the least of which are recreational and aesthetic. Even more important, wetlands provide vital spawning and feeding areas for many species of sport and commercial fish. They provide nesting, feeding, and resting areas for millions of migratory birds, including game birds. They provide filtering action which removes many organic and industrial pollutants which would otherwise contribute to contamination of drinking water supplies, and they disperse and store flood waters, build land by trapping sediment, and by dissipating the destructive force of storm-driven waters they provide an irreplaceable buffer against shoreline erosion.

Section 404 of the Federal Water Pollution Control Act (Clean Water Act Amendments of 1972, P.L. 92–500) provides vital protection to the wetlands of the United States. The House Wright-Breaux Amendment (H.R. 9560, now S. 2710) excludes most wetlands from that protection. It is clearly in the public interest to continue the 404 program without such amendment. The proposed Senate Hart-Cleveland Amendment, which would clarify existing provisions of the bill which have been widely misinterpreted, is a preferable alternative.

I sincerely urge that the House Wright-Breaux Amendment be rejected as not in the public interest, and that extended funding be authorized for the Clean Water Act for the period necessary to implement the full three-phase program of Section 404, and furthermore that no additional amendments should be considered until the full program has gone into effect and can be evaluated according to its merit.

Yours Truly,

Mrs. JAMES E. PLYMIRE.

JULY 27, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing to urge your committee to defer amendment of Section 404 of the Clean Water Act.

I am a property owner in Bethany Beach, Delaware and I would much rather see pollution control of the waters around there in the hands of the Corps of Engineers than in the hands of the state, where so often political considerations outweigh ecological considerations.

I hope you will include this letter in the record of your current hearings.

Thank you.

Sincerely,

KIRK RANKIN.

SPOKANE, WASH., *July 15, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am requesting that the following four points be included in the record of the hearing of July 27–28, 1976, on section 404 of the Clean Water Act.

(1) it is premature to amend Section 404; no hearings should be held nor amendments considered until after the full three-phase program has gone into effect.

(2) the proposed Senate Hart-Cleveland Amendment is preferable to the Wright-Breaux House Amendment since it would address those issues mistakenly raised by those who oppose further regulations under the section; it would write

into law the exemptions and general permit program already set for Phases II and III in the regulations, and it would provide a progress report for the Congress to review at the end of the next year.

(3) wetland areas are valuable for their capabilities to break down and remove quantities of pollutants such as inorganic nutrients and organic wastes from their tributaries, to store flood waters and to feed and nurture the lower end of the food chain.

(4) the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall within the House's narrowed definition of "navigable waters."

Thank you, Senator Randolph, for this opportunity to express my views on this very important legislation.

Sincerely yours

THOMAS L. RECTOR.

RIVERS UNLIMITED,
Cincinnati, Ohio, July 23, 1976.

Re for the record of the hearing of July 27–28, 1976, on section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We respectfully request that your committe *oppose* any and all attempts to make substantive changes in the Federal Water Pollution Control Act and specifically in Section 404 as proposed in S. 2710.

Rivers Unlimited is a state-wide coalition of thirty-four (34) organizations concerned with the preservation of natural, free-flowing rivers and streams in Ohio. It seeks to preserve the social, economic and environmental values associated with rivers as natural, ecological systems. The member organizations are composed of farmers, landowners, and others equally concerned with the conservation of our natural resources.

Our membership is deeply concerned about several provisions of S. 2710. As it now stands, this bill guts several sections of the Clean Water Act. It contains the Wright-Breaux Amendment that excludes 85% of this nation's wetlands from protection under Section 404 and reduces necessary controls over the nation's waters under the 1899 Rivers and Harbors Act.

More specifically, S. 2710 would negatively impact the goals of the Federal Water Pollution Control Act as follows:

(1) The Breaux Amendment would exclude from federal protection all wetlands, including rivers and ocean inlets, above the mean high water mark, leaving one-half of the coastal wetlands and 85% of the total wetlands, completely unprotected by law. Uncontrolled dredging and filling would have far-reaching negative effects. Wetlands serve as important sources of food for commercially valuable fish and shellfish; as vital nesting areas for birds and fur-bearing animals; as water purifiers and as aids in retarding flood waters and recharging water supplies.

Further, recent studies at the Institute of Ecology at the University of Georgia quantify the many values of marshland in terms of dollars per acre including:

(a) Commercial and sport fisheries	$100
(b) Aquaculture potential	630
(c) Tertiary waste treatment potential	2,500
(d) Life support value (wildlife habitat, oxygen production, storm protection)	4,100
Total value per acre of marshland	7,330

(2) The Wright-Breaux Amendment would delegate the massive municipal sewage treatment facility construction program to the states. The amendment would authorize the Administrator of the Environmental Protection Agency to delegate to the states $35 billion in federal funds and would give the states the exclusive right to approve applications for local construction grants. The bill does not provide for effective EPA review, and criteria and safeguards were not included to ensure that only states with adequate programs are given this authority. Most important, this amendment does not protect the requirement for environmental impact statements or the right of citizens to sue.

In summary, we oppose any weakening amendments to the Clean Water Act and respectfully request that your committee support the Hart-Cleveland Amendment. The Hart-Cleveland Amendment would make law the exemptions and general permit program already set for Phases II and III in the regulations and it would provide a progress report for the Congress to review at the end of next year. This report would summarize the Army Corps/EPA progress in the implementation of Section 404 and, when considered with the final report of the National Commission on Water Quality, should provide the direction needed for amendment of the Federal Water Pollution Control Act.

We ask that this statement be included in the record, and we appreciate your consideration of our views.

Sincerely,

BRUCE A. REILEY, *Director.*

FOR THE RECORD OF THE HEARING OF JULY 27–28, 1976, ON SECTION 404 OF THE CLEAN WATER ACT

1. The Wetlands of America are a national resource of extraordinary significance. Wetlands are critical to the marine food chain, fish and wildlife, flood control, pollution abatement and navigable waterways.
2. Wetlands are being dredged and filled at an alarming rate. A large part of the nation's wetlands have been lost forever.
3. State and local governments have for the most part failed to protect wetlands from this increasing threat.
4. In 1972 Congress acted to provide this essential protection by providing for an extended federal permit program, under Section 404 of the Clean Water Act.
5. The Army Corps has gotten a good start in implementing the permit program. The program has not been in effect long enough, however, to determine what refinements may or may not be necessary. The program should be given a chance to prove its value.
6. False issues raised by certain interests may be put to test by writing into law the exemptions already set by the Corps regulations.
7. Section 404 should otherwise be left intact, so that the nation's wetlands may survive.

LAURANCE ROCKEFELLER,
New York, N.Y.

NORMAN, OKLA., *July 26, 1976.*

Re section 404 of Public Law 92–500.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Committee on Public Works, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR MR. RANDOLPH: Please include this letter in the hearing record of July 27–28, 1976 on Section 404 of P.L. 92–500, the Clean Water Act.

I feel that it is premature to amend Section 404 of the Clean Water Act before the full three phase program has gone into effect. The Corps of Engineers is doing a commendable job of implementing the 404 Permit Program in Oklahoma, and I am not aware of any major problems that have been encountered in the initial phase of the implementation process.

Since there is some ambiguity in the current wording of Section 404, I would support amendments to clarify that section. Such clarifying amendments should exempt normal farming, ranching, and commercial forestry operations, and sanction the implementation of the second and third phases of the 404 Permit Program. I think that it would also be helpful to require the Corps of Engineers and Environmental Protection Agency to submit a progress report on the Permit Program to be considered in the next session of Congress.

The current 404 program provides a method of considering and protecting the great recreational values of many eastern Oklahoma streams. The public notices required under the permit program facilitate this, and are not procedurely complex or time consuming. I therefore think that it would be a mistake to eliminate this program from Oklahoma.

Thank you for your consideration.

Sincerely,

R. FENTON ROOD.

SAVE OUR SEASHORES OF DELAWARE,
Bethany Beach, Del., June 21, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
Washington, D.C.

DEAR SENATOR RANDOLPH: Save Our Seashores of Delaware, an organization of 400 families, urges your Committee to defer amendment of Section 404 of the Clean Water Act.

In our opinion, Phase II and Phase III regulations of the Corps of Engineers should be given a chance to work. If you must legislate, we urge support for the Hart amendment to S. 2710 which writes into law the exemptions and the permit program already set for Phase II and III.

Here in Delaware, we have several cases of serious pollution in tributaries which under the House's narrowed definition of navigable water would be beyond the reach of the Corps of Engineers' permit program. State regulation is frequently subject to political considerations to the detriment of the environment.

Please consider this statement as testimony to be included in the record of the Hearings of July 27–28, 1976 on Section 404 of the Clean Water Act. We urge that additional environmental organizations be given the opportunity to testify in the July 27–28 series of hearings.

Sincerely yours,

ROBERTA LEIB, *Codirector.*

SAVE SAN FRANCISCO BAY ASSOCIATION,
Berkeley, Calif., July 19, 1976.

Re oversight hearings of July 27–28 on section 404 amendments.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The Save San Francisco Bay Association is an organization of 20,000 members dedicated to the protection of the long-run values of the San Francisco Bay. The Association is concerned with the Wright Amendment to Section 404 of the Federal Water Pollution Control Act of 1972 now being considered by the Senate Public Works Committee as an amendment to S. 2710. The statement of our Association is offered as public testimony to be entered into the record. The attached exhibits indicate our concern over a period of months.

The Association opposes the Wright Amendment and requests that no change be made to Section 404 as included in the 1972 Federal Water Pollution Control Act.

In San Francisco Bay, the existing 404 section includes jurisdiction over significant wetlands which, because they are behind dikes, would not be given adequate protection under the Wright Amendment. On the edge of the Bay 160,000 acres of important wetland areas are involved. These are valuable for many economic, social and environmental reasons. They significantly affect air and water quality and moderate the climate of the Bay Area. They provide throusands of acres of flood plains. Commercial and sport hunting and fishing valued in the millions of dollars per year are dependent on this wetland habitat. These wetlands are also resting and feeding areas for millions of migratory birds.

Some of the diked areas will provide needed mitigation opportunities to enlarge the tidal prism of the Bay by breaking the dikes if economic and social factors require Bay fill in the future. These opportunities could be lost if urban development is not regulated.

Because of the importance to the Bay Area, we urge that the proposed Wright Amendment be deleted from the bill.

Sincerely,

WILLIAM E. SIRI, *President.*

Enclosures: 2.

SAVE SAN FRANCISCO BAY ASSOCIATION,
Berkeley, Calif., April 27, 1976.

Senator ALAN CRANSTON,
452 Senate Office Building,
Washington, D.C.

DEAR SENATOR CRANSTON: Your urgent support is needed to preserve what remains of the nation's marshes and wetlands.

H.R. 9560, authored by Congressman Jones of Alabama, has had an amendment attached by Congressman Breaux of Louisiana in the House Public Works Com-

mittee. According to our latest information, the bill will be introduced on the floor of the House by the end of April.

The Breaux amendment would severely limit the authority of the Corps of Engineers under Section 404 of the Water Pollution Control Act of 1972 to regulate filling and dredging activities in wetlands. It has been estimated that 80 to 90% of the wetlands and marshes in the country could be used as dredge disposal sites or landfill areas if this legislation were enacted. In the San Francisco Bay Area the corps has provided important protection for the extremely valuable marshlands of the constantly threatened Bay. The salt ponds and managed wetlands here not only provide wildlife habitat of regional and national importance, they also contribute to the water surface of the Bay which is necessary to maintain our moderate climate.

As you know, the Senate passed a companion bill, S. 2710, on December 1, 1975. This version is not as restrictive of the Corps' jurisdiction. The Association is extremely concerned that if the House version is passed and the two bills go to a Conference Committee the Senate bill would be compromised. We strongly oppose the weakening of the regulatory powers of the Corps of Engineers and urge you to help prevent this happening.

Sincerely,

WILLIAM E. SIRI, *President.*

SAVE SAN FRANCISCO BAY ASSOCIATION,
Berkeley, Calif., June 24, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, New Senate Office Building, Washington, D.C.

The 20,000 member Save San Francisco Bay Association is extremely concerned with current legislation which may limit the jurisdiction of the U.S. Army Corps of Engineers. The Association opposes any amendments to Section 404 of the Federal Water Pollution Control Act of 1972, such as the Wright Amendment contained in Senate Bill 2710, which would weaken the permit authority of the Corps.

The Association requests that public hearings be held. Your support in the protection of our nation's wetlands, 160,000 of which would be affected in and around the San Francisco Bay, is urgently needed.

Respectfully,

WILLIAM E. SIRI, *President.*

STATEMENT FOR THE RECORD OF THE HEARING ON SECTION 404 OF THE CLEAN WATER ACT (PUBLIC LAW 92–500), JULY 27–28, 1976

(Submitted on behalf of: C&O Canal Association, Bonnie Troxell, President; Citizens' Coalition for St. Mary's County, Jack Whitten, President; Committee to Preserve Assateague, Judith C. Johnson, Chairman; Izaac Walton League, Maryland Division, James A. Thomas, President; Maryland Conservation Council, Ajax Eastman, President; Maryland Wetlands Committee, Judith C. Skinner, Chairman; Maryland Wildlands Committee, Elizabeth Hartline, Chairman; Maryland Wildlife Federation, Paul M. Breidenbaugh, President; Potomac River Coalition, Jack Whitten, President; Sierra Club, Potomac Chapter, Edwin F. Wesley, Conservation Committee Chairman; Southern Maryland Audubon Society, George Wilmot, President; Upper Chesapeake Watershed Association, Inc.; Herbert Ward, President; Worcester Environmental Trust, Joseph Fehrer, Chairman.)

Honorable Chairman and members of the committee: The groups here represented wish to comment upon the question of possible delegation to the States of the Section 404 authority of the United States Army Corps of Engineers for regulation of work in the waters of the United States, including tidal and non-tidal wetlands. We believe that the Army Corps' regulations provide a workable program and an essential check on local political influence over the issuance of State wetlands permits. The "404" program should be allowed to proceed without further delay, and without weakening amendments to the Federal law.

Nevertheless, if delegation of any such authority is to be considered at all under the statute, strict Federal criteria and standard should be written into the law in order to serve the overall interests of the American people.

As an example of a State which has abused its own law, the State of Maryland has brought harm to its public trust tidal wetlands and to the vital non-tidal wetlands areas, while denying lawful recourse to those citizens acting in the

public interest. If time allowed, copious documentation could be supplied to the Committee. However, the two specific examples below—Mattawoman Swamp and Mystic Harbor—should suffice to illustrate the crying need for the Federal protections guaranteed under the Clean Water Act's Sec. 404 permit process and Sec. 505 Citizen Suits provision (under which "any citizen" may bring a civil action) as well as for the rational decision-making process provided under the National Environmental Policy Act.

MATTAWOMAN SWAMP

In October 1975, the Maryland Department of Natural Resources (DNR) granted a waterway construction permit under its authority to regulate the appropriation or use of non-tidal waters, for a sewage treatment plant in the Mattawoman Swamp, one of the prime freshwater (non-tidal) wetland areas of the Potomac River estuary. Ten Maryland citizens spent nearly $900 for legal fees trying to appeal the permit before the DNR's Board of Review, but were denied a hearing on the merits of the case. Instead, the Board decided that the appellants have no standing, even though one is a commercial fisherman who fishes downstream waters, another has been a life-long resident located a mile from the proposed site who hunts and fishes for recreation in Mattawoman Swamp, and the others are Saint Mary's and Charles County residents and Maryland State taxpayers.

Not only did the State ignore citizens' suggestions for alternate sites, but also it ignored its own Fisheries Administration and Wildlife Administration staff recommendations, and proceeded to divert two vital tributaries of the Mattawoman. Both streams had been pristine, gravel-bottomed spawning grounds for anadromous fish of the herring species.

The 123-acre sewage plant site is in a wooded swamp in an important aquifer recharge area within the 50-year floodplain of Mattawoman Creek. It is the primary nesting grounds for wood duck in Maryland, and provides a wide diversity of species of wildlife. Because of its high environmental, recreational, asethetic and economic values, this same portion of the Mattawoman Valley had been originally included in DNR plans for a proposed 4,730-acre Natural Environmental Area. Now the site is being cleared of shrubs and hardwood trees in preparation for filling and construction. In addition, an 8-mile long, 66-inch interceptor sewer is being laid in the bottomland for connection to the sewage plant, which will ultimately treat an average of 50 million gallons daily. (The attached clippings and the letter from the National Wildlife Federation to EPA Administrator Russell Train elaborate on the detrimental effects of this project.)

Only tidal wetlands are covered under Phase I of the Sec. 404 regulations. To assure protection of thousands of acres of Maryland's inland wetlands like the Mattawoman swamp, as well as to protect the people's right to due process, Phase II should not be further prevented from taking effect.

MYSTIC HARBOR

In October 1973, the Maryland Board of Public Works approved a massive mile-long canal system and filling project covering tidal wetlands on a 294-acre property called Mystic Harbor on Sinepuxent Bay near West Ocean City. Under the Maryland Wetlands Law, the DNR makes recommendations to the Board of Public Works, which issues licenses for activities in tidal wetlands which are below mean high tide. The DNR issues permits for activities in those tidal wetlands above mean high tide that are periodically innundated by spring high tides. The Board of Public Works comprises the Governor, the State Comptroller and the State Treasurer, who meet in unadvertised sessions and to whose decisions none of the State's administrative or judicial appeal procedures apply.

The project was opposed in public hearing before the Board by many individuals and civic organizations, not only from Worcester County, but also statewide. To these citizens, State law provides no opportunity for appeal or redress of their grievances. After the hearings, the license was issued in the following manner: (a) without public notice or review, the original proposal was modified substantially to allow dredging on an adjacent property in tidal wetlands; (b) the Board failed to respond to any of the numerous letters written offering viable alternatives and opposing the proposal; and (c) the Board postponed its decision indefinitely, and then, without notice to interested parties and without advertisement, made its decision four months later.

Alerted that the environmental stakes were high in this case, the U.S. Army Corps of Engineers engaged the Mitre Corporation to write an environmental impact statement (the draft of which has never been released) and in October 1975, held a public hearing. Opposition and testimony by the U.S. Environmental Protection Agency, the National Marine Fisheries Service of the U.S. Department of Commerce, and the U.S. Department of the Interior expressed at that hearing appear to assure ultimate Federal denial of the proposed project, under Phases I and II of Sec. 404.

Agency testimony emphasized the water quality degradation which canals cause. Because canals receive much storm water run-off and other wastes, and experience poor flushing action, they tend to become anaerobic (having very low levels of dissolved oxygen) and host a diminishing diversity of species. Devastating fish kills can occur at night when the dissolved oxygen levels drop even lower. The construction of canals reduces self-sustaining and productive ecosystems that have adapted to periodic flooding. Such construction cuts off the tidal flow throughout the marsh that washes out detritus and wastes. The result is a reduction of those lower organisms of the food chain that are essential to the nurture of all forms of wildlife.

A project like Mystic Harbor requires the full and open review and evaluation, by citizens, experts and public officials alike, which Phases I and II of Section 404 provide.

We object to the consideration being given in some quarters to delegating activities under Section 404 to the States and we must reiterate our strong opinion that rigid Federal standards and criteria would have to be set by law for evaluating a State's capability to operate such a program. Further, Federal performance audits and reports should be required on an annual basis to assess that State's continuing effectiveness, with provision for public hearings. Ultimate responsibility for any permits issued by a State under a delegated Section 404 program should remain with the Army Corps and the U.S. Environmental Protection Agency, in order to preserve citizens' rights under both the National Environmental Policy Act and the Sec. 505 Citizen Suits provision of the Clean Water Act. Lastly, a procedure should be spelled out in the law for the Army Corps and EPA to revoke the delegated authority in the case that a State has been shown to be violating water quality standards, or has been incapable or ineffective in conducting the wetlands protection program.

[From the Prince Georges' Journal, Oct. 30, 1975]

Deceit Suit on Plant Eyed

(By Kay Miller)

Thomas McKewen, director of Maryland Environmental Service (MES), deliberately withheld information showing the site of the proposed Mattawoman Sewage Treatment Plant unsuitable, according to Kenneth S. Kamlet, National Wildlife Federation counsel.

The regional Mattawoman plant to be built in Charles County will serve it and Prince Georges.

But the site selected for the plant lies in a flood plain. During the recent Hurricane Eloise, much of the site was hip-deep in flood waters.

Based on McKewen's advice and believing it to be the result of MES staff reports, the Environmental Protection Agency (EPA) approved award of plant construction contracts, Kamlet said.

EPA Region III staffers in Philadelphia, whose office has jurisdiction over Mattawoman, told Kamlet in an Oct. 17 conversation they felt they were "led down the garden path" by McKewen, Kamlet said.

The federation plans court action is necessary to stop plant construction at the planned site.

But before suing, federation director Thomas L. Kimball first appealed in an Oct. 16 letter to EPA Administrator Russell Train to issue a 45-day stop work order on the plant.

This, Kimball said in his letter, should be followed by an EPA order terminating the project until an environmental impact statement investigating the site and assessing alternate locations is prepared.

Absent an "acceptable response or proposal" from EPA by Oct. 30, Kimball's letter indicated, the federation will ask a federal district court to issue an injunction blocking construction.

The 5 million gallon a day (mgd) plant is scheduled for eventual expansion to 50 mgd.

But 104 acres of the 123-acre Mason Springs site selected by Charles County Sanitary Commission for the plant are in a 50-year flood plain.

One-fifth of the site is wooded swamp wetland, fostering irreplaceable fish and wildlife which, the federation said, would be endangered by a sewage treatment plant.

After a visit to the site, federation representatives reached the conclusion Mason Springs is "the worst possible location" for the plant.

Kamlet said it was not among the 13 sites designated as suitable by consultant engineers hired in 1958 by Charles County to assess locations.

The Chapman's Landing site, on the banks of the Potomac River, was named by consultant as most appropriate was abandoned in 1970 because Baroness Margot Besseyneg, a wealthy and influential resident with land near the site, objected, he said.

"Once in a great while, projects are called to our attention that are so ill-advised that they cry out for correction," Kimball said in his letter to Train.

"I believe based on the information available to us," the letter continued. "that the Mattawoman sewage treatment project fits in this category."

Kamlet said the federation has many concerns about Mason Springs. As the lowest point in the entire 50,000-acre Mattawoman Drainage Basin, it undergoes serious floods every 50 years.

It is likely, Kamlet said, the plant will undergo flooding in that time span which will wash raw sewage from plant holding tanks into the Potomac.

In addition, if floods temporarily knocked the plant out of operation, millions of gallons of raw sewage would have no place to go but into the river, he said.

Flooding could be worsened, he added, after trees in the surrounding area are removed and paving for plant facilities is done. Increased water runoff would raise flooding potential, he said.

Current plant plans place some sludge disposal near the treatment site. Flood waters could also carry sludge "contaminants and noxious things for which the sewage was originally treated into the river," he added.

All these problems were explored in a report done by MES and given to McKewen, Kamlet said. It was McKewen who advised Green Jones, director of EPA's water programs division, to give Charles County the go-ahead on the initial 5 mgd plant at Mason Springs.

"What McKewen very carefully forgot to tell Jones was a large number of problems his staff uncovered," Kamlet said, adding EPA was not furnished with a copy of the report.

At an Oct. 24 meeting held in Secretary James B. Coulter's Department of Natural Resources office, Prince Georges and Charles County principals to the Mattawoman project discussed why the site was selected and chances the suit would succeed.

"When EPA approved it (Mattawoman plant) it said all laws and regulations pertaining to this have been met. Go to it," said Daniel L. Geller of EPA's Region III office.

"I haven't been to the site," Geller said. "When we approved this we operated on the assumption it would be a suitable site for a waste treatment plant.

"I'd like to get an opinion from everyone here," Geller said to others at the meeting, which included McKewen, "whether this is the 'worst possible site (for the plant)'."

Coulter warned, the National Wildlife Federation's formidable legal staff has succeeded in blocking construction of waste treatment plants in the past.

Coulter was uncertain about effects of the lawsuit. "Unless something new is uncovered in this," he told Col. Louis H. Cummings, chairman of Charles County Sanitary Commission, "I don't think the state or federal government will take away approval."

At the same time, Coulter said he had only recently learned—from a late night phone call Oct. 22 from an EPA official—that the Mattawoman site was in a flood plain. This, he said, is the most immediate problem faced by project proponents.

"If there is a law suit," Geller said, "we're (EPA) the ones that will be involved."

If a suit is filed, he added, it would not automatically halt pending construction unless an injunction is allowed by the court.

"To assume the court would find against us is just an assumption," Geller said.

[From the Times Crescent, La Plata, Charles County, Md., Oct. 8, 1975]

SITE FOR SEWAGE PLANT FLOODED

Fears of Charles County members of the Public Advisory Council on the Lower Potomac River Basin were confirmed when the heavy rains from Eloise flooded the Mason Springs sewer plant site.

The Charles County Sanitary Commission's controversial plan to locate a new plant there to handle as much as 50 million gallons per day has long been criticized by members of the Council, a state-created citizens advisory body.The proposed site lies in the Mattawoman flood plain.

That Friday, after days of torrential rain, Council Member J. Willard Dutton, a farmer and watermen's leader who lives on the Mattawoman had to take a boat to get into the site off Rte. 225. Another member, physicist George Wilmot of Bryans Road, waded in as far as he could, but had to stop when the water was waist high.

Joseph Olcott, the Council's chairman and a well-known business leader in the county, says that the site was a poor choice. It could probably be used for another purpose by the State, with the plant constructed on higher ground nearby without great financial loss.

Olcott is particularly irate over the treatment given the Council by state authorities. The Council was established with a mandate to advise broadly about water quality, pollution, and similar matters in the lower Potomac basin. But it now appears, Olcott said, that the State was only going through the motions of complying with federal requirements.

The Council went to Annapolis last week to appeal to the DNR (Dept. of Natural Resources) Board of Review the decision by DNR's Water Resources Administration (WRA) to give a waterways construction permit for the sewage plant at Mason Springs. They did so after WRA refused to reconsider its permit decision.

The Council members were confronted by an attorney from the Maryland Attorney General's office, who challenged their right to appeal, or to have any say about the Mason Springs plant. Attorney Jim Vance of Camp Springs who argued for the Council, is partially being funded in this legal battle by the League of Women Voters.

Olcott complained that the State could have told them they had no right to appeal beforehand, so they would not have wasted their time with a whole day of legal wrangling. Wilmot said that the State is in an embarrassing position: it set up a citizens advisory body, and now refuses to let them appeal.

The attorneys on both sides have been asked to present their briefs on whether the board should allow an appeal.

Olcott says the posture taken by the Attorney General's office that the Mattawoman is outside the purview of the council is absurd, as the Council is concerned with the entire lower basin of the Potomac River.

NATIONAL WILDLIFE FEDERATION,
Washington, D.C., October 16, 1975.

Re Mattawoman, Maryland Sewage Treatment System.

Hon. RUSSELL E. TRAIN,
Administrator, Environmental Protection Agency,
Washington, D.C.

DEAR RUSS: Once in a great while projects are called to our attention that are so obviously ill-advised that they cry out for correction. I believe, based on the information available to us, that the Mattawoman sewage treatment project fits into this category. A local editorial-writer has described this project as "an instance where the wheels of bureaucracy are simply moving ahead recklessly, waiting for common sense to call a halt." Russ, we appeal to you to apply the brakes long enough for a common-sense reappraisal.

The proposed project is a wastewater treatment facility with an initial capacity of 5 mgd and a planned ultimate expansion to 50 mgd. It will provide secondary treatment and microstrainers, and will service developing areas in Charles and Prince Georges Counties, Maryland. The project includes an outfall line which runs from the plant site at Mason Springs about four miles along Route 225 through Potomac Heights to the Potomac River. Sludge from the 5 mgd plant is proposed to be disposed of on the site of the treatment plant after aerobic digestion

in trenches. Cost of the project is $36 or $37 million, including a significant federal share.

One hundred and four acres of the 123-acre plant site lie in the 50-year floodplain. About one-fifth of the site is wooded swamp wetland. Soils at the site are poorly drained and are subject to frequent or seasonal flooding. During recent heavy rains several feet of water completely submerged the site which is at the lowest point in the more than 50,000-acre Mattawoman watershed. According to the engineering consultant, locating the operational units of the plant above elevation 16—which coincides with the 50-year floodplain delineation—would avoid Agnes flood levels. However, the Southern Maryland Resource and Development Board and the Charles County Soil Conservation District do not believe that the historical flood record is relevant to what will happen in the future. This view is based on an expectation of increased flooding as presently wooded areas in the watershed (the watershed is now 50 percent wooded) are developed and rendered impervious to drainage, and as a result of the dam-like effect of the treatment facility itself on floodwater.

According to biologists with the Maryland Fisheries Administration and the Maryland Wildlife Administration, wildlife and fisheries values at, above, and below the site are extremely high. Fish spawning areas in the Mattawoman watershed are described as possibly the most important in the Potomac estuary in terms of variety of spawning species. The Department of the Interior regards the Mattawoman's wooded swamps as being the most extensive wood duck nesting area in Maryland, and has identified the Creek as first of thirty-one "key areas [in the Potomac estuary] . . . having exceptional value for insuring wildlife habitat, protecting natural beauty of the estuary and realizing its enormous recreational potential." Among the approximately 200 species of birds which nest in or otherwise frequent the area are mallards, red shouldered hawks, great blue herons, eagle, and osprey. The habitat is also of value to beaver, otter, mink, muskrat, deer, and other mammals. The 123-acre plant site also directly intrudes into a 4,730-acre Natural Environment Area (encompassing Myrtle Grove Wildlife Refuge) being planned by the Maryland Department of Natural Resources. Construction of the plant and associated structures at the Mason Springs site will adversely impact these fish and wildlife resources through the direct loss of 123 acres of prime bottomland and stream bank habitat. Indirect losses from sedimentation are also likely (unless stringent and costly control measures are taken). Additional adverse impacts can be expected if the plant is flooded (both through release of raw sewage if floodwaters over-top the elevated plant and through removal of sludge disposed of on-site, even if no overtopping occurs), and as a result of groundwater contamination by sludges placed on ill-suited soils.

In short, it is difficult to imagine a worse location for this project.

On the other hand, a number of preferable alternative locations are readily available. One area that has been suggested, for example, is that adjacent to Route 225 and upland of the railroad track. Not only is this area above flood level, but it lies between the terminus of the interceptor line (already laid) and the outfall point on the Potomac River. According to a staff evaluation by the Maryland Environmental Service (a Maryland State agency), "[t]here appears to be no engineering reason why this location would be unfeasible." Another preferable site would seem to be one located on the Potomac River near Chapman's Landing which was the site recommended to the Charles County Commissioners in 1966 in a consultant's report which investigated some 13 alternative sites. It was this site, and not the Mason Springs site, for which various project concurrences and approvals were obtained in 1967, 1969, and 1970 from the Regional Sanitary Advisory Board, the Metro Washington Council of Governments, the Charles County Planning Commission, and the Maryland State Health Department. (The Chapman's Landing site was discarded in 1970 because the land was held by an "influential landowner," Baroness Margot Besseyney, who was vehemently opposed to the location of the plant at that site.)

While these, or other alternatives would not totally eliminate damage to Potomac estuary fish and wildlife, they would minimize direct destruction of wetland and eliminate the severe problems associated with construction in a floodplain. They would also eliminate much of the high cost associated with elevating the treatment system above historic flood levels and erecting adequate sediment control structures. According to the Maryland Environmental Service staff, the selection of an alternate site could mean a delay in construction of the Mattawoman facility of one or two years. In their view, such a delay "will not mean delay in improving the quality of the water in Mattawoman Creek." It will

mean some delay in "major development plans in both Charles and Prince Georges Counties", however. We believe the environmental and economic benefits of sound planning far outweigh any potential economic impact that might result from taking the time to think this project through.

Specifically, we request you to direct that an Environmental Impact Statement be prepared forthwith by EPA in connection with its funding of this project, as required by the National Environmental Policy Act, Executive Order 11514, and applicable EPA regulations. Although planning for this project may have been begun pre-NEPA, final EPA grant approval did not come until August 26, 1975, and essentially all of the construction work for the project remains to be done. Our attorneys inform me that under these circumstances an Environmental Impact Statement is clearly required. Indeed, several Maryland officials have themselves urged such a review. For example, the Maryland Wildlife Administration recommended to the Water Resources Administration on April 22, 1975 that no State permit be issued until: "(1) an exhaustive search for alternative sites is undertaken and (2) an environmental impact assessment is made of the selected sites". And the Maryland Environmental Service's Basin Plan Manager for the lower Potomac concluded in an April 14, 1975 memorandum "that an Environmental Impact Statement for this project should be prepared by the Environmental Protection Agency immediately."

If the kind of considered analysis dictated by NEPA were ever sorely needed, this is such a case. We strongly urge that you initiate the steps for conducting such a review. In the interim, we believe a moratorium should be imposed on construction activities at the Mason Springs site.

Federation counsel inform me, moreover, that in addition to the clear NEPA violation associated with this project there have probably also been violations of the legal requirements of, among others, the Fish and Wildlife Coordination Act, the Endangered Species Act, Executive Order 11296 (made applicable to EPA by 40 C.F.R. 30.402(b), and directing "all executive agencies [to], as far as practicable preclude the uneconomic, hazardous, or unnecessary use of floodplains"), EPA's "wetlands policy", and EPA Program Guidance Memo #50 (June 6, 1975).

Accordingly, we request a response from EPA, particularly with regard to its willingness to prepare an Environmental Impact Statement before allowing this project to proceed any further, within 10 working days. If an acceptable response or proposal has not been received at the expiration of this time, I have directed our counsel to proceed immediately to federal district court to seek appropriate injunctive and other relief.

Russ, please put the brakes on this boondoggle.

Sincerely,

THOMAS L. KIMBALL,
Executive Vice President.

STATEMENT OF RHEA L. COHEN, WASHINGTON REPRESENTATIVE, SIERRA CLUB, ON PROPOSED AMENDMENTS TO SECTION 404 OF THE FEDERAL WATER POLLUTION CONTROL ACT

1. INTRODUCTION

It is a pleasure for the Sierra Club to be able to comment on oversight hearings concerning the conduct of the Corps of Engineers permit program for work in waters of the United States. This program is mainly authorized under Section 404 of the Federal Water Pollution Control Act (FWPCA) and the 1899 Rivers and Harbors Act.

Since April, this program has come under attack in the House of Representatives without occasion for public testimony, and without expert agency analyses. We therefore welcome this opportunity to point out as best we can those features of the existing program that are of clear benefit to the public, and as well to present a case against modification of the program by legislative means such as suggested by the Wright-Breaux amendment to FWPCA as passed by the House on June 3, 1976.

For many years, Sierra Club members and staff have had continuing day-to-day experience with the Corps of Engineers permit system in many parts of the nation. Predominately, this experience has been gained in dealing with the processing of permit applications for work in navigable waters of the United States under the 1899 Act, but more recently under Section 404 of FWPCA as well.

The Club has commented in writing upon large numbers of permit applications, testified at many public hearings dealing with them, and performed detailed analyses of environmental assessments and impact statements (prepared under NEPA). As well, such matters have been the subject of litigation in which the Sierra Club has occasionally participated, both in concert with the Corps and in opposition to it.

Finally, the Club testified last year at the nationwide public hearings held by the Corps dealing with the drafting of regulations under which Section 404, the 1899 Act, and some eight other federal statutes would be coordinated and applied to the permit system. As you know, the Corps on July 25, 1975 published "interim final" regulations for the permit systems as a result.

In light of the above noted interest and experience, the Club has taken particular pains to study with great care all amendments to Section 404 that have been recently proposed.

In summary, the Sierra Club strongly opposes the Breaux amendment, strongly opposes most features of the Wright amendment, and approves certain features of the Cleveland-Harsha or Hart amendments.[1] Our detailed comments on these amendments are given below.

The primary interests of the Club in relation to the effects of alterations such as dredge and fill work in the waters of the United States relate to recreational, wilderness and wildlife values. Additionally, however, the Club is mindful of the values of wetlands and watercourses in a far broader context that includes their valuable natural functions in flood prevention, municipal and agricultural water supply, coastal storm protection, timber and cash crop production, and air and water pollution reduction.

The nation's wetlands resources have suffered enormous losses since the Declaration of Independence in 1776, and as a result governmental regulation has become a necessary feature in our future. To be effective and accepted, regulatory structure must be even-handed and reasonably simple, yet capable of protecting the general welfare. The existing Corps regulations largely achieve these ends, and the Sierra Club seeks to defer their modification at least until next year when additional experience will be available, and the Senate will have held hearings on the final report of the National Commission on Water Quality.

2. THE CORPS PERMIT SYSTEM

Under the 1899 River and Harbor Act, the Corps permit system for work proposed in navigable waters of the United States is a mature governmental regulatory mechanism that has been reviewed and revised over the years. The Corps has a cadre of personnel experienced in all aspects of the system including coordination with State and Federal agencies, public hearings, preparation of environmental assessments and impact statements, and enforcement actions.

As needed to keep pace with judicial determinations, Congressional directives and citizen interest, the Corps has responded through publication of both amended regulations and of definitions of its area of jurisdiction. Where Congress has passed new statutes such as NEPA, the Coastal Zone Management Act, the 1972 Marine Protection, Research, and Sanctuaries Act and others, the Corps has also managed to draft regulations that coordinate these diverse statutes into a logical and reasonably simple structure. In few instances only do there appear to be inconsistencies or areas where the permit program leaves authority or procedures in question.

The July 25, 1975 regulations (which superceded the April 3, 1974 version) are sometimes criticized as being excessively verbose or confusing. However, it is our view that the main problem is simply one of editorial and typographic defects such as indexing and headlining; a table of contents would help enormously. With a little help from Corps personnel, any applicant who takes the trouble to read appropriate sections of the regulations will have no fundamental trouble in determining his status at any particular point during permit processing.

Over the past two years (in Florida and California at least) a few Corps permit actions have been hotly contested and thus became highly visible in the news media. Understandably but unfortunately, such coverage has been employed as a device to bring the entire permit system under criticism. However, what is *not*

[1] In the Congressional Record of June 3, 1976, the Breaux amendment is given on page H5266, the Wright substitute is on page H5267, and the Cleveland-Harsha amendment is on page H5266. The Hart amendment is the bill S. 3663, which is printed on page S11509 of the Congressional Record for July 2, 1976. The Hart language differs only slightly from the Cleveland-Harsha amendment.

generally known is the fact that for each hotly contested application, there are hundreds or even thousands that are routinely and efficiently processed and permits issued. In some parts of the nation at least, development in wetlands areas has proceeded, but mitigated through enhancement and preservation of important wildlife and other public values during negotiations that are part of the permit review process.

Time delays for permit application processing are sometimes cited as reason to eliminate Corps authority in wetlands. However, the San Francisco District Engineer in a sworn affidavit filed recently estimated that if there are no unresolved objections and no EIS to be prepared, then "four to six months" is the processing time between application and permit issuance. At the other extreme, where there are unresolved objections and an EIS is needed, the time required is "eighteen to twenty-four months". These are reasonable figures as compared to times for processing state and local permits, and where concurrent processing takes place the Corps permit should be no extra burden of consequence; unless, of course, the project is not in the public interest.

Sierra Club members' experience indicates that where a project is well designed environmentally, permit processing times are generally kept to a bare minimum. Through prior consultation in the project design stage between the applicant and State and Federal agencies, other time economies are potentially possible.

Furthermore, contrary to some impressions, applicants do not always regard the permit process as an imposition. It can protect one riparian or littoral land claimant against projects proposed by his neighbors, and additionally allows free consultation with State and Federal wildlife and other experts that could otherwise be prohibitively expensive. These are excellent services by government to the pub ic.

We are inclined to disbelieve the remark that the Section 404 regulations "inflamed the sensitivities" of a "wide group of Americans" given in a recent Senate letter to President Ford. There exists a voluminous printed record obtained by the Corps during last year's nationwide hearings. Furthermore, just a year ago, the Corps stated in the Federal Register it had received "over 4,500 comments" in response to its proposed May 6, 1975 regulations. To our knowledge, no committee of Congress has made a thorough public study of this written record in the hands of the Corps which formed the basis of the July 25, 1975 regulations. We therefore request that the Senate Public Works Committee study the above record and include it in the record of the present hearings.

The same letter to President Ford also concludes that U.S. District Court Judge Aubrey E. Robinson "erred" in interpreting the term "navigable waters" in his judgment of March 27, 1975 in the case: *N.R.D.C. et al.* v. *Callaway et al.* (392 F. Supp. 685). However, by simply reading the definition given by Congress in Sec. 502(7) of FWPCA and comparing it with Judge Robinson's two-page published judgment, one immediately finds that he quoted Congress precisely, and that the term means "the waters of the United States, including the territorial seas."

3. THE WRIGHT AND BREAUX AMENDMENTS

Both the Wright amendment and the Breaux amendment would re-define "navigable waters" under a highly restrictive and archaic formula. They would replace several hundred years of judicial rulings and precedent by a statement merely 76-words long that seriously damages public rights in the nation's present and former waterways.

But even more, these amendments would prohibit the Corps of Engineers from exercising jurisdiction under the 1899 River and Harbor Act beyond the same narrow definition of "navigable waters". These amendments would *eliminate all historically navigable waters* from any federal listing of public waterways, unless they are now used or could by "reasonable improvement" be used "as a means to transport interstate or foreign commerce."

Such language in our view would do far more damage than to simply take Corps jurisdiction back to 1972. We believe instead that it would conflict with many state and federal statutes as well as judicial rulings in the highest courts.

For example, the State of Louisiana was admitted to the Union in 1812 under the express condition: ". . . that the river Mississippi, and the navigable rivers and waters leading into the same, and into the Gulf of Mexico, *shall be common highways, and forever free,* as well to the inhabitants of the said state as to the inhabitants of other states and the territories of the United States, . . ." (2 Stat. 701, 703 (1812); emphasis added)

Many other states were admitted under similar conditions, and we can trace this same "*common highways . . . forever free*" language back at least to the Northwest Ordinance of 1787, and possibly further. "Forever", it will be recalled, "for a limitless time" or "eternally" (Webster's Collegiate Dict.).

Under the Wright and Breaux amendments, the extent of the loss of historically navigable waters can not be estimated without the most searching study, but could easily represent a windfall gain to land claimants in the hundreds of millions—if not billions—of dollars. A public give-away of public rights in unknown quantities of land and of unknown value would seem unthinkable in this nation.

Besides the above historically navigable waters above, the Wright and Breaux amendments would eliminate from Corps jurisdiction under Sec. 404 the major proportion of the nation's remainlng 70 million acres of wetlands. The serioueness of such wholesale relinquisment of federal authority can not be overstated.

Under the Wright amendment, federal projects or federally assisted projects approved by Congress would not require Corps permits if an environmental impact statement or environmental assessment has been "submitted to Congress". Nothing is stated about which of the two would be used, and nothing is stated about the adequacy of either, or of review and approval by state and federal agencies or the public. Further, "federally assisted" projects are not defined through dollar value or percentage of federal assistance, and since a token federal contribution could make nearly any project "federally assisted", there would be widespread opportunities for abuse and avoidance of environmental controls.

Also under the Wright amendment, the Corps could delegate its authority over "adjacent wetlands" to a state, but with no standards cited on the ability of the state to protect the federal, state or local interests. Furthermore, this delegation does not recognize the need for coordination across state boundaries, as, for example, in planning for migratory waterfowl habitat. A variety of standards in the delegation agreements could arise, many of which could be within a single Corps District or Division. Administration of such programs can be a costly and time consuming nightmare.

The Wright amendment allows states to enter into revokable agreements with the Corps concerning protection of other wetlands that both agree are important to protect. Again, no standards are provided for guidance, and even within a given state, the Corps could be faced with two different sets of marching orders.

The Wright amendment also includes language that exempts "normal farming, silviculture, or ranching activities" and certain "maintenance" work. Such language is discussed in the following section.

4. CLEVELAND-HARSHA AND HART AMENDMENTS

These two amendments are virtually identical. They exempt from Corps permit authority certain "normal" farming, timber, ranching and maintenance activities both under Sections 402 and 404 of FWPCA.

Some concerns relative to these exemptions should be expressed:

(1) What is "normal" in agricultural activities will vary greatly within a given state and across the nation. The small farmer's "normal" operations will be significantly different from those of corporate agribusiness, and differ in their effects upon the goals of cleaning up the nation's streams and lakes as expressed in Sec. 101 of FWPCA.

(2) "Maintenance" work for serviceable structures is sometimes difficult to distinguish from activities that are in fact "new work". It may prove awkward or impossible to draft a statutory distinction, but to leave the matter unresolved invites certain abuses.

(3) Even though Congress may desire to exempt certain activities under Section 404 of FWPCA, additional exemption under Section 402 may be unwise. The reason is that many "normal" dairy and livestock feedlot operations, for example, usually generate sizeable quantities of nutrition-rich wastewaters, the discharge of which is both properly and traditionally regulated.

These concerns can be addressed by Congress by adding language at the end of Section 404(d) as given by Senator Hart that gives the Corps District Engineer and the EPA Regional Administrator. discretion to determine if such "normal" and "maintenance" activities are either "new work" or would damage water quality if left unregulated. The Corps recognizes the need for discretionary authority relative to the nation's wetlands and waters; see, e.g., July 25, 1975 regulations, 33 CFR 209.120 (d)(2)(i), (40 *Federal Register*, page 31325).

Based upon the July 25, 1975 regulations, the Corps has already prepared draft public notices for some "General Permits" for certain activities. In California, for example, it is estimated that one General Permit for culverts and stream crossings associated with timber operations will cover the estimated 15,000 such operations performed annually in the state. Thus the General Permit program (which is also given in the Cleveland and Hart amendments) has the potential for sharply reducing the administrative and citizen work load in achieving Congress' clean water aims.

Because it is a new and untried concept, some uncertainties exist relative to the General Permit program. Indeed, it could prove to be the wiser course of action to defer passing statutory authorization for it for a year or two, when experience with the program would be available to aid in drafting such an authorizing statute perhaps even more concisely.

5. SUMMARY AND CONCLUDING REMARKS

The Sierra Club positions on various aspects of the Corps of Engineers permit program under the 1899 River and Harbor Act and Section 404 of FWPCA under current discussion are:

A. The Corps program has achieved many important balanced uses for waters and wetlands in the United States in recent years. The program has the personnel, regulations and coordinating structure to continue, refine and expand this important service.

B. The definition of navigable waters given in the Breaux and Wright amendments is particularly unacceptable. Under this definition, untold thousands of acres of formerly navigable waters and waterways would be removed from jurisdiction of the United States that formerly enjoyed such protection. This amounts to a major revolution in the method of administration of the 1899 River and Harbor Act, and in many ways sets back the jurisdiction of the United States in waterways by over a century.

C. In addition, the Breaux and Wright amendments would delete from significant federal protection a substantial proportion of the nation's remaining 70 million acres of wetlands. This is separate from the areas in (B) above, and represents a serious relinquishment of federal authority attained in 1972.

If these amendments were to be approved, law in this area would for the first time in recent years diverge sharply from the direction of current progress in the state of scientific and engineering knowledge concerning the value of wetlands to the general public welfare. Section 404 should not be so amended.

D. Any exemption of "normal" agriculture or maintenance work as proposed under the Cleveland and Hart amendments should be subject to review through discretionary authority by local Corps and EPA officials in order that the basic Clean Water objectives of FWPCA will be met.

According to other amendments to FWPCA given in H.R. 9560 and S. 2710, federal control of purse strings on some $35 billion in Clean Water sewage plant construction funds would be given to the states without adequate controls. Further, the states would decide on spending priorities. The taxpayers' funds could thus go to projects using inferior technology, to clean waters of one state's shore of a lake while the other shore is green with slime, and to construct interceptor sewers for subdivisions while the treatment plants were not improved at all. These amendments are given in Section 12 of S. 2710, which would add Sections 213 et seq. to FWPCA. The Sierra Club opposes these amendments.

Supplementary Fact Sheet—Re: S. 2710

S. 2710 was passed by the full Senate in December 1975 as purely authorization legislation for EPA programs which had exhausted their funds.

In the House a number of amendments were added which are fiscally irresponsible and would weaken the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500). The most damaging amendments are as follows:

SECTION 16, 404 DREDGE AND FILL PERMIT PROGRAM (WRIGHT AMENDMENT)

This amendment would remove Federal protection from millions of acres of the nation's wetlands. The House held no hearings before adopting this amendment. The amendment was not the product of rational inquiry and debate but was passed in reaction to unfounded allegations that the program—which is effectively protecting valuable national resources—was in unwarranted intrusion into the

day-to-day activities of ordinary citizens. In fact, the program, under the regulations proposed by the Army Corps of Engineers, would exempt activities of minimal importance and only require permits which have really major impacts on our nation's waters (example—the Marco Island decision prevented the filling of more than 2,000 acres of oceanside mangrove swamp). If the Corps' regulations are allowed to operate it will soon become apparent that there is little regulatory interference with the activities of the average farm, ranch, or forest products operation. However, if it is determined that the Senate must make a legislative change to this program now, an approach similar to that of the Hart amendment, which exempts particular activities but does not alter the scope of the program, would be acceptable.

SECTION 12, SECTION 213—CERTIFICATION (CLEVELAND/WRIGHT AMENDMENT)

This would delegate from EPA to the states approval authority over applications for Federal construction grants. The record of the grants program (as established by EPA and GAO reports) indicates that there are program differences in the quality of state performance. Since Federal grants have been available to cover 75% of the cost of treatment facilities there has been a tendency to overbuild to take advantage of federal subsidies. Data on O&M reveal that many plants do not meet their designed performance levels. The Cleveland/Wright amendment lacks safeguards which would prevent unqualified states from obtaining the program or to ensure that federal dollars are not spent for plants which are oversized and don't work properly. Moreover, the amendment does not protect citizen suit rights or NEPA requirements.

The Senate should hold hearings on the State Certification issue and prepare a delegation amendment which contains safeguards to prevent unwise delegations and waste of federal funds.

SECTION 12, SECTION 214, PRIORITY OF CATEGORIES OF PROJECTS (ROE AMENDMENT)

This would free states to spend Federal funds for collector sewers, which stimulate unplanned growth and create pollution, rather than for treatment facilities to clean up existing pollution problems. Federal funds should be earmarked for their primary purpose—pollution control—not the subsidy of low density residential development on vacant land. This amendment is fiscally irresponsible and should be deleted.

SECTION 12, SECTION 216, NON-FEDERAL WAIVER (ABZUG AMENDMENT)

This would allow EPA to permit a municipality to build a treatment plant without local matching funds (i.e. with 100% federal funding) if the municipality had exhausted its bonding capability. This could result in poorly planned plants and would encourage municipalities to manipulate their bonding capabilities in order to qualify for plants paid for entirely by the Federal government. This amendment is fiscally irresponsible and should be deleted.

SECTION 19, RULE AND REGULATION REVIEW (LEVITAS AMENDMENT)

This would allow either chamber of Congress to veto regulations issued under the Federal Water Pollution Control Act if the chamber acts within 60 days of the date the regulations were promulgated. The amendment upsets the balance between the legislative and executive branches of the government and between the two houses of Congress. It favors special interest groups which could mobilize quickly against regulations which they opposed. Representatives of the broad public interest would be disadvantaged because they would be less able to react quickly to come to the support of good regulations or to oppose bad ones. The amendments would introduce delay and uncertainty into the regulatory process and divert congressional time and attention from the legislative process. The amendment should be deleted.

The Senate should stick to its original intention of passing only authorization legislation this session. It is planned that the Congress will begin a major review of P.L. 92–500 next year when it considers the findings and recommendations of the National Commission on Water Quality. The Senate should defer, until that time, legislation on the major substantive issues that are raised by the House amendments to S. 2710.

Should the Senate decide to accept substantive amendments this session, they should not do so without hearings. In addition to the hearings scheduled on Section 404, the Senate should hold hearings on State Certification and the other new sections proposed for addition to Title II of P.L. 92–500. Many of these sections were the subject of only *pro forma* hearings in the House and have never been the subject of hearings in the Senate.

SIERRA CLUB,
Washington, D.C., July 20, 1976.

Re H.R. 15, The Lobbying Act.

Hon. WALTER FLOWERS,
Chairman, and Members of the Subcommittee on Administrative Law, House Judiciary Committee, House of Representatives, Washington, D.C.

DEAR CHAIRMAN FLOWERS AND MEMBERS OF THE SUBCOMMITTEE: In your deliberations on the Public Disclosure of Lobbying Act, we hope you will take into consideration the attached suggested amendments.

As we noted in our June 7th letter to Chairman Rodino, and as the attached memoranda describe, the proposed bill would impose a nearly unbearable clerical and financial burden on organizations such as the Sierra Club. Such legislation would discourage grass-roots response to proposed federal legislation and regulation.

Our suggested amendments would spare voluntary membership organizations from having to account for the countless efforts of non-paid members who participate in the decision-making process at the Federal level. We suggest that certain lobbying solicitations and communications by affiliates be excluded from the coverage of this legislation and we recommend deletion of the requirement for identification of contributors of $2,500 or more.

We urge you to consider these matters in further hearings, in order to evaluate possible inpairment of citizens' rights to join together to petition their government.

Sincerely,

RHEA L. COHEN,
Washington Representative.

Attachments: 4.

SUGGESTED AMENDMENTS TO THE PUBLIC DISCLOSURE OF LOBBYING ACT OF 1976

I. Insert the following new paragraph Sec. 2(12) and redesignate paragraph 13 accordingly:

"Section 2(12). The term 'voluntary membership organization' means an organization composed of persons who are members thereof on a voluntary basis, and who, as a condition of membership, pay regular dues, subscribe to one or more publications, or make contributions to such organization. Such an organization may choose to treat its regional, state or local units either as part of the organization or as affiliates for the purpose of complying with this Act."

This amendment would simply add to the definitions section a definition of a "voluntary membership organization", and specify that such organizations may treat their local units as affiliates.

II. Strike Section 3(b)(2) and substitute in lieu thereof:

"3(b)(2) a communication or solicitation made through a speech or address which is open to the public, or through a newspaper, book, periodical, newsletter, magazine or circular published for distribution to the general public or to the membership of an organization, or through a radio or television broadcast."

This definition should be amended for completeness, to protect First Amendment rights.

III. Add a fourth paragraph to Section 3(b):

"(4) a communication or solicitation made by any non-paid chief executive officer, any principal operating officer or member of a chapter, division or sub-unit of a voluntary membership organization."

This amendment would explicitly exempt an organization's non-paid members from the requirements of the Act. As it is written, the House bill does not include them in its reporting requirements. However, the Lobby Act which passed the Senate (S. 2477) does cover non-paid members under its requirements.

The Sierra Club's Controller, Allen Smith, has estimated that it would cost the Club $250,000 per year to comply with either the House or the Senate bill. As the attached memoranda show, a large portion of that cost would be attributable to registering and reporting the activities of "affiliates" operated by non-paid mem-

bers. In addition, other non-monetary costs will also accrue and are likewise highlighted in the memoranda. Therefore, we hope the House will not adopt the Senate language and instead will insert a clear exemption.

IV. Section 6(b) amend to read:

"(a) Each organization shall, not later than *thirty* days after the last day of each quarterly filing period . . . "

This amendment would provide voluntary membership organizations with the needed additional time in which to prepare their reports. Fifteen days would be inadequate time in which to retrieve and process lobby data from the divisions of such highly decentralized grassroots groups as the Sierra Club.

V. Section 6(b)(2) add at end:

"Any organization whose affiliates, if treated separately, would not have to register under this Act, may report the annual budgets of such affiliates and estimates of the proportion of such annual budgets expended in any fiscal quarter on lobbying communications and solicitations. The Comptroller General shall not require detailed record-keeping on the expenses of any such affiliate."

VI. Section 6(b)(5) amend to read:

"(5) a description of the *ten* issues concerning which the organization filing such report engaged in activities described in section 3(a) and upon which the organization spent the greatest proportion of its efforts, and a general description of any other issues engaged in such activities;"

This amendment would make this sub-section considerably less burdensome to comply with, while still providing the information Congress desires. Most organizations do not conduct lobbying activities on more than twenty-five issues in a quarter. Therefore, the present language would, in effect, require detailed descriptions of practically *every* issue "concerning which an organization spend the greatest proportion of its efforts," and a general description of the other issues. To be useful, the Act should require reporting of only that information which is necessary to reveal where excessive influence has come from. Limiting to ten the number of issues which have to be reported in detail, will tailor this legislation to more closely fit the needs of the Congress as well as decentralized voluntary membership organizations which would be hardest hit by this legislation.

VII. Strike Section 6(b)(6) and Section 6(c):

The first section requires lobbying organizations to include in their reports descriptions of solicitations which they initiated or for which they paid.

The second sub-section requires an organization which "causes an affiliate . . . to engage in a solicitation relating to an issue with respect to which the registered organization is engaging" in lobbying to report such solicitation.

Under both sub-sections it would be virtually impossible for many volunteer membership organizations to keep track of each lobbying solicitation that it makes. The expense of collecting materials and data, of processing reports and of postage costs, the uncertainty of even being fully in compliance plus the subsequent chilling effect upon First Amendment rights, would be odious to a free people.

Alternatively, we suggest the following amendments as a package:

Delete Section 6(b)(6) and substitute in lieu thereof:

"A description of the subject matter of solicitations initiated or paid for by such organization and the general means of distribution of such solicitations."

And delete Section 6(c) and substitute in lieu thereof:

"(c) If an organization which is required to register under this Act urges, requests or requires an affiliate which is not so registered to engage in solicitations relating to an issue with respect to which the registered organization is engaging in any activity described in section 3(a):

(1) the registered organization must report the identity, location and approximate number of members of the affiliate together with a general description of the nature of the activities in which the affiliates were requested to engage;

(2) if the affiliate expends more than $25,000 with respect to such issue, then the registered organization or the affiliate must report such activities of the affiliate pursuant to subsections (a) and (b) of this section."

VIII. Section 6(b)(8) and substitute in lieu thereof:

"6(b)(8) For purposes of this section, no member of an organization shall be identified in such report because of membership in such organization, but the organization itself shall be so identified."

This amendment would eliminate a requirement to publish in the Federal Register all donors of $2,500 or more per year. Not only would contributions be discouraged by such a requirement, but also those donors would be handy subjects for nuisance solicitations.

THE FINANCIAL IMPACT ON THE SIERRA CLUB OF PROPOSED LOBBYING DISCLOSURE LEGISLATION

(By Allen E. Smith, Sierra Club controller)

The scope of both the House and Senate versions this legislation could reach as far as reporting requirements for all of the Club's volunteer divisions, as well as paid national and division staff, particularly where solicitation to lobby both the Congressional and Executive branches are involved.

The Sierra Club has no built-in accounting system which is sufficient to encompass the proposed lobbying disclosure reporting requirements. A highly decentralized grass-roots organization largely run by volunteers and only partially staffed by a corporate organization, the Sierra Club comprises a national staff, plus: 10 regions, 50 chapters, 242 groups, and 165,000 members.

The regions, chapters, and groups—the Club's divisions—are almost entirely run by 500 volunteer leaders. As many as 5,000 volunteers are actively involved in varying Committee and Subcommittee capacities. While the national staff is about 125 people, there are about 12 staff at the level of the larger chapters. The central accounting office of the Sierra Club does not manage nor control the finances of the chapters and groups except once a year, when we are provided with summary financial statements by them to consolidate with the national Club's financial statement pursuant to filing our annual tax returns. In addition to funds raised on their own, the chapters are given quarterly dues allocations: However, the disbursement of that money is neither controlled by the national Club nor is it reported in detail to the national Club.

The burdens of either version of the proposed lobbying disclosure legislation would force the Sierra Club to adopt centralized reporting procedures which exceed our existing capabilities. It also could push us into centralized accounting to bring the 50 chapters with their 242 groups up to accounting standards not now possible with our present systems, and not otherwise deemed necessary under the present rules of accounting relating to the national Sierra Club's financial statements.

We are thus faced with a *minimum annual cost of $250,000.00* to provide some form of the following structure:

Estimated Annual Budget Additive

10 Regional administrators/accountants:	
Salary	$12, 000
Expenses, $3,000—$15,000 times 10	150, 000
Increased data processing	25, 000
Increased central accounting office staff:	
1 Accountant/administrator, 2 Clerical support:	
Salaries (total)	35, 000
Expenses	5, 000
Total	40, 000
Increased external audit fee (to review regional, chapter and group books)	35, 000
Total (minimum)	250, 000

There can be no argument, within either the accounting profession or the field of regulatory reporting, that any form of accurate reporting of transactions and financial data must be generated by a system which can support and substantiate the end result reported, and which can provide an audit trail to prove the authenticity of that reported. When regulatory/disclosure reporting systems are proposed by government, an assumption is often made that most reporting requirements can readily be met by slight modifications or additions to the existing accounting systems of the organizations involved. Without debating the presumptuous nature of such assertions, it is sufficient to point out that most often those reporting costs exceed the original scope and intent of an organization's reporting system.

THE CHILLING EFFECT ON CITIZEN PARTICIPATION IN NATIONAL DECISION-MAKING UNDER BOTH H.R. 15 AND S. 2477, THE PENDING LOBBY BILLS

(By Carl Pope, Sierra Club Director of Political Education)

The provision of the Senate-passed lobbying bill, S. 2477, inevitably exert a substantial chilling effect upon the volunteer leadership of the Sierra Club. The most drastically affected individuals would be chapter chairmen and chapter conservation chairmen, who are also the key individuals in keeping a healthy grass-roots effort going.

The chapter chairman would be considered the chief officer of an affiliated organization. There are an average of 4 to 6 groups under a chapter, and these groups would also qualify as affiliates. The groups, with rare exceptions, have no paid staffs, but in many cases their chief executive and operating officers engage in sufficient volume of communications that their activities would have to be logged.

Since in most cases principal responsibility for conservation work lies with the chapter or group conservation chairmen, they too, would qualify as principal operating officers, as well as the chairman. This means that in addition to paid staff, if any, the chapter chairman would be responsible for ensuring that the activities of 8 to 12 volunteers—none under actual supervision—be logged; that all telephone calls made from the chapter or group offices (or members' homes, if there is no office) soliciting members to call their Congressmen, comment on an environmental impact statement (if it involved a contract or lease), or appear at a wilderness hearing, must be kept track of so that the total expended on the solicitation, could be reported. Where, as is often the case, the group chair and conservation chair conduct independent solicitations of members, and submit telephone bills, those bills would have to be logged, separated into issues for purposes of determining the ten most important, and separated as to direct lobbying and lobbying solicitations.

In some cases, chapters cover two, three, or even four states. The degree of contact between the chapter chairman and the groups is minimal—lobbying solicitations by the groups originate directly with the Washington office or the San Francisco office. The groups and chapter budget books are maintained by volunteers, also not under the direct supervision of the chairman and not normally at nearly the level of sophistication required to comply with the provisions of the Senate bill. Some volunteers who make telephone calls and who later request reimbursement do not do so on a quarterly basis, nor do they keep track of which issues on which they made the calls.

The chapter chairman sees this dilemma: to the extent that he would pressure his volunteers to keep records of each phone call, force them to break down and allocate the costs of each issue alert publication, and insist chapter members working with other groups keep track of how many individuals are reached and what costs are involved, two unwanted results could occur. The response by many of his volunteers would be to ignore the reporting requirements, placing the chairman in the position of being unable to comply with the law. Alternatively, many volunteers, already overburdened by their activities would cease engaging in those Federal issues rather than to suffer the bother, hassle, and sense of legal threat involved in federal lobbying under this legislation.

It is conceivable, of course, that some volunteers will continue to put in the same number of hours on federal matters as before, but a significant part of those hours in the case of the group chairman (probably 30–40%) will be spent on paperwork trying to comply with the reporting requirements, diminishing the total effort of a critical link by that 30–40%. The 30–40% figure is based on the need, at the end of the quarter, to call each of the active volunteers who responded to solicitations and collect data of further solicitations, number reached, copies of material, expenses and allocation of expenses to each issue.

Since in all too many cases it is easier for the volunteer to relate to a local or state issue, since the offices involved are likely to be closer to the volunteer and physically more accessible, *the net effect would be to cripple the chairman's efforts to keep his volunteers working to influence federal decision-making.*

THE RECORDKEEPING BURDEN: LOBBYING SOLICITATIONS BY "AFFILIATES" UNDER H.R. 15, THE PROPOSED LOBBYING BILL

(By Eugene Coan, Sierra Club National Issues Director)

The national Sierra Club and all of its divisions ("affiliates") that engage in efforts to influence Congressional or administrative decisions by means of generating public response would have to keep track of each such lobbying solicitation, including:

(1) The extent of coverage of these federal issues in each medium of communication, including nationwide specialty newsletters, regional as well as all chapter and group one-time issue "alerts", telephone campaigns, and other outreach efforts. Each medium would have to be analyzed—not only to comply with the comprehensive companion bill, S. 2477, but also to substantiate the lesser reporting required by H.R. 15—in terms of its audience—geographic spread, number of persons, and state-by-state breakdown if any one state received 500 or more.

(2) Each mailing the Club or its affiliates made would have to be itemized, including description of the issue involved, number of persons who received the mailing, and states which received 500 or more.

(3) Each telephone call or in-person effort, whether by employees or volunteers, to elicit grass-roots support on federal issues would have to be tallied.

(4) Copies of each national, regional, chapter and group written solicitation would have to be filed for five years in the Club's central accounting office to substantiate the reports.

(5) The total expenses involved in each solicitation would have to be logged.

(6) Finally, for each solicitation designed to reach affiliates there would have to be a breakdown of the affiliates reached and the number of persons reached in each.

Considering that the Sierra Club's volunteer members watch-dog many federal agencies' contract activities—timber sales, park concessions, mineral and offshore oil and gas leases—it would be a nearly hopeless effort to keep accurate and complete records without totally transforming the Club from a spirited grass-roots action base into a highly centralized and probably demoralized organization.

GREATER FORT WORTH SIERRA CLUB,
Fort Worth, Tex., July 25, 1976.

Subject: Statement for the record of the July 27–28 hearing on section 404 of the Federal Water Pollution Control Act.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

The Greater Fort Worth Group of the Sierra Club believes that it is premature to consider amendments to Section 404 of the Federal Water Pollution Control Act and that the Senate should consider no amendments until the full three-phase program has gone into effect and can be evaluated completely and objectively.

The Section 404 permit program, when fully implemented, will give legislative protection to most of our Nation's formerly unprotected wetlands. This is extremely important in view of the numerous values of wetlands. Wetlands are rich in plant and animal life and are among the most productive of all ecosystems; they purify water supplies, provide natural floodwater storage, and recharge the ground water; they provide nursery areas for fish and shellfish; and they provide unique recreation opportunities. In recognition of these values and to bring attention to the ongoing rapid loss of this great natural resource, the National Wildlife Federation designated "Save Our Wetlands" as the theme of this year's National Wildlife Week.

We feel that the Section 404 permit program will have particular importance in saving wetlands in Texas. This state has the financial capability to develop large scale water projects, and many of the largest water development projects now in existence in Texas are state, not Federal projects. State projects are usually single purpose and make no attempt to mitigate or compensate environmental destruction. The 404 program will provide our state's wetlands with legislative safeguards by bringing state water development projects under the purview of the National Environmental Policy Act and the Fish and Wildlife Coordination Act.

We urge the Senate Public Works Committee and the Senate to delay action on Section 404 until the program is fully operative and decisions can be based on a complete and objective review.

JON R. NICKLES,
Conservation Chairman.

LOMA PRIETA CHAPTER, SIERRA CLUB,
Palo Alto, Calif., June 22, 1976.

Re S. 2710 (H.R. 9560) For the record of the hearing, July 27–28, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The Loma Prieta Chapter of the Sierra Club is most concerned about amendments to the Federal Water Pollution Control Act which will leave most of our nation's remaining wetlands unprotected under Section 404.

We urge you to defeat the Wright-Breaux amendment, H.R. 9560, which has been added to S. 2710.

The proposed re-definition of "navigable waters" in that amendment is highly restrictive and considered a seriously retrogressive action in water resources management. This amendment would prevent the application of environmental controls on approximately 85% of the nation's wetlands, and leave them completely unprotected.

We question the allocation of $35 billion to state governments for sewage treatment plant construction without adequate environmental and fiscal safeguards, and without EPA review, under such a "state certification" program.

It would be a crucial mistake in water resource management, under the proposed amendment, to prohibit the authority of the Corps of Engineers under the narrow definition of "navigable waters". The Corps' record in protecting our nation's wetlands under the Act has been very good.

Further, this amendment would not protect the requirement for environmental impact statements, or the right of citizens to sue.

Additionally, we absolutely disagree with the proposed reduction of the maximum civil penalty for a hazardous chemical spill from $5 million to a mere $50,000 under the amendment, which is a severe blow to the power of the Act.

We feel the amendment does not provide sufficiently for adequate environmental impact statements, and their conscientious review and approval on proposed projects in the wetlands.

We question the adequacy and accuracy of information to Congressmen on this wetlands issue. We are also concerned that the views and testimony from public interest groups have not been heard sufficiently.

We disapprove of the lack of opportunity, as yet, for submittal and hearing of testimony from EPA and the Corps of Engineers, and hope you will encourage and receive this testimony.

We urge you to pass a bill which will simply extend funding for the Water Pollution Control Act (P.L. 92–500), for one more year, rather than accept this grossly inadequate and premature revision. DO NOT approve in Conference or in Committee any bill containing substantive changes in the law.

Please protect our wetlands. Thank you for your support.

Respectfully,

JOSEPH CARLETON,
Conservation Chairman.

SIERRA CLUB, FLORIDA CHAPTER,
Gainesville, Fla., July 12, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4204 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: The enclosed statement expresses the strong support of the Florida Chapter of the Sierra Club for the three-phase program developed by the U.S. Army Corps of Engineers to implement Section 404 of the Federal Water Pollution Control Act. Please include this statement in the record of the hearing of July 27–28 on Section 404.

Sincerely yours,

JONATHAN K. LEE, *Chairman.*

STATEMENT OF THE FLORIDA CHAPTER OF THE SIERRA CLUB, FOR THE RECORD OF THE HEARING OF JULY 27–28, 1976, REGARDING SECTION 404 OF THE CLEAN WATER ACT

The Florida Chapter of the Sierra Club urges the Senate Public Works Committee to support the full three-phase program developed by the U.S. Army Corps of Engineers to implement Section 404 of the Federal Water Pollution Control Act. We believe that the regulations developed by the Corps provide a sound basis for a program to protect our waters and wetlands from unwise dredge and fill activities.

Florida, with its long coastline and extensive wetlands, will be among the states most affected by this program. Our wetlands are an irreplaceable natural resource which, in their natural state, are vital to the ecological balance of Florida's inland and coastal areas. They are essential for the production of marine and inland wildlife, waterfowl, finfish, shellfish, and vegetation; for the maintenance of protective barriers against floods, hurricanes, and other storms; for the absorption of salts and pollutants; and for the recreation and aesthetic enjoyment of the people of Florida and the nation.

For these reasons the Florida Chapter has long supported both state and federal action to protect inland and coastal wetlands, to prevent their destruction, and to manage necessary economic development in a manner consistent with their preservation.

The House (Wright-Breaux) amendment destroying the Section 404 program attacks the principle that effective pollution control measures must apply to all waters, not just narrowly defined "navigable waters." The House amendment would stop the 404 program from controlling the discharge of polluted dredged or fill materials into most of America's streams, rivers, lakes, and wetlands.

We believe that this is not the time to amend Section 404. Changes should not be considered until after the full three-phase program has gone into effect.

However, if the Committee determines that it is necessary to amend Section 404, the Senate Hart-Cleveland amendment is very much preferable to the House Wright-Breaux amendment. The Hart-Cleveland amendment would address directly those issues raised by opponents of Phases II and III of the Corps program, while keeping the key features of the program intact. The Hart-Cleveland amendment would write into law the exemptions for farming, silvicultural, and ranching activities and the general permit program for projects having minimal environmental impact already set for Phases II and III in the Corps regulations. It would provide for a Corps/EPA progress report by December 31, 1977, on the implementation of Section 404.

A vote to destroy the Section 404 program would be a vote with a potentially greater negative impact on Florida's environment than any other in recent years. The Florida Chapter of the Sierra Club urges the Senate Public Works Committee to give the 404 program a chance to operate. It will provide the kind of protection our waters and wetlands desperately need.

SIERRA CLUB,
POTOMAC CHAPTER, DELAWARE GROUP,
Newark, Del., July 23, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
4202 Dirksen Senate Office Building.

DEAR SIR: For the record of the hearing of July 27–28, 1976 on Section 404 of the Clean Water Act.

Sierra Club, Delaware Group strongly supports Section 404 and feels it is premature to amend it. The full three-phase program has not been in effect to even consider any changes. If any amendments are to be considered the Senate Hart-Cleveland amendment is preferable to the Wright-Breaux House Amendment.

By amending Phase II, pertaining to permits of fill on the floodplain, an outside mediator would be eliminated. We have a perfect example in Delaware of a case involving a bridge on fill in the floodplain proposed by our highway department. The funds to be used are state only. Objecting to this type of construction and fill in the stream bed we went through all the necessary local governmental agencies. Without any satisfaction, our only recourse left was to request a hearing from the U.S. Army Corps of Engineers who must issue a permit. By allowing

the states to have the total responsibility for issuing permits of this type we lose an outside objective review. Many times the political pressures envelop causing the economics in construction to override the environmentally sound. Cost of measures to correct adverse environmental impacts would come from budgets of public agencies other than the highway department.

Frequently the Corps gets the end result of bad construction and planning and must control the flooding in and out of navigable waters. This control should be developed before the adverse effects are there to help prevent high costs of remedial repairs and destruction in our wetlands.

We suggest that either the U.S. Department of Fish and Wildlife, Environmental Protection Agency or the U.S. Army Corps of Engineers be an outside non-political group to review such matters.

Respectfully,

Mrs. Marguerite G. Jahn.

Statement for the Record of the Hearing of July 27–28, 1976, on Section 404 of the Federal Water Pollution Control Act by the Rio Grande Chapter of the Sierra Club

The Federal Water Pollution Control Act (P.L. 92–500) was adopted to protect the chemical, physical, and biological integrity of the nation's waters. Section 404 provides an important aspect of this protection by helping to reduce the amount of silt. Silt is a major contaminant of rivers, especially in the southwest.

It is important to recognize that the intent of Congress in adopting PL 92–500 was to protect all of the water of the U.S., not simply navigable waters. Appropriately, the courts and various agencies have defined "navigable waters" in the broadest possible context. It is entirely inappropriate for Congress to change that definition, which has been developed over a period of years, in one brief session, without the benefit of adequateh earings.

To protect the integrity of the nation's waters, the Federal Water Pollution Control Act must address all watersa nd wetlands.

Phases II and III of the implementation of Section 404 are absolutely essential to the protection of the waters of New Mexico. If the definition of navigable waters recommended by the Wright-Breaux amendment prevails, none of the Rio Grande and its tributaries in New Mexico above Elephant Butte Reservoir will be protected, nor will the Gila, San Juan, Canadian and Pecos Rivers be protected from dredging and filling. This is essentially all of the surface water of New Mexico.

People in the Corps of Engineers in New Mexico, who have been in the process of implementing Phase II of Section 404 have indicated in personal conversations with us that the implementation is running smoothly and is not an excessive burden.

We have had several examples already of the law functioning very well in facilitating excellent coordination and cooperation between the Highway Department, the New Mexico Game and Fish Department, the U.S. Fish and Wildlife Service, and the Corps of Engineers, in mitigating damage to rivers and wetlands due to river crossing projects. This would not have happened without the requirements of Section 404 and related regulations.

Citizens in the Albuquerque area are vitally interested in protection of an oxbow wetland on the Rio Grande within the city limits. Section 404 of PL 92–500 (without amendment) will provide a means of mitigating damage to this area which might result from construction of an irrigation drain and related road which are proposed. Without Section 404 the proposed work can proceed with no consideration being given to the effect on the river or the adjacent wetlands. The amended version of Section 404 being proposed would not apply.

The San Juan River in northwestern New Mexico is probably the finest trout stream in the southwest. Without Section 404 of PL 92–500, and specifically phases II and III of the implementation regulations, this stream will be unprotected from dredging, filling, and siltation.

I have had considerable experience in the implementation of PL 92–500 in the past 3½ years. We are just beginning to see the fruits of these efforts. We urge you to strongly resist any efforts to amend Section 404, or any other section of PL 92–500, at this time. Any consideration for amendment should be done in the context of the entire law, since all sections are interrelated with the ultimate goal of protection of the physical, chemical, and biological integrity of the nation's waters.

SAN FRANCISCO BAY CHAPTER SIERRA CLUB,
Oakland, Calif., July 23, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
Senate Office Building, Washington, D.C.

Request that the following statement be included in the record of the hearing of July 27–28 1976, on Section 404 of the Clean Water Act.

The San Francisco Bay Chapter of the Sierra Club is deeply concerned about the fate of wetlands in San Francisco Bay and its connecting waterways. The immediate source of our concern is the hasty amending process being carried out on Section 404 of the Federal Water Pollution Control Act, which is premature in view of the total review of the Act and its implementation programs scheduled by the Senate for next session.

As a result of this amending process to supposedly make the job of cleaning up our Nation's waters easier, a significant portion of these waters (everything not big enough to float a barge) have lost protection against discharge of polluted dredged materials under the House Wright-Breaux Amendment. We request acceptance instead of the Senate Hart-Cleveland Amendment which would clarify the existing 404 regulations by exempting from regulation all normal farming, silviculture, and ranching activities and authorizing a general permit program for projects having minimal environmental impact, but would still include under its protection vital marshlands and smaller tributary waterways. As any student of biological systems recognizes, our waterways form an interconnected network, and it is not possible to withdraw some portion of this system and allow certain things to happen there (i.e. dumping of polluted materials) without having it eventually effect the entire system. In addition, we emphasize that fresh and salt water marshlands are extremely valuable for their capabilities to utilize quantities of pollutants such as excess nutrients and organic wastes from their tributaries, to store flood waters, and to nurture the young of many fish, birds, and other wildlife, some of whom we in turn rely on for food. As such these wetlands are in critical need of protection from pollution and the wholesale filling which is a primary concern for unprotected bay-edge marshlands.

Please support implementation of the full three-phase program of the Water Pollution Control Act prior to any consideration of substantial changes.

Thank you.

PAULA CARRELL,
Conservation Coordinator.

SIERRA CLUB,
SOUTHERN PLAINS REGIONAL CONSERVATION COMMITTEE,
Norman, Okla., July 14, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, U.S. Senate, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: I am writing you in order that these comments of mine can be included in the hearing record of your committee concerning section 404 of the 1972 Water Pollution Control Act Amendments. I understand that this hearing will take place on the 27th and 28th of July, 1976.

While I am certain that you are aware of the Sierra Club's position supporting the present "404" program I felt that it might be useful to include some of my personal experiences and views dealing with the implementation of PL 92–500 in the region of the nation in which I live.

For the past two years I have been closely involved in the public participation portions of the implementation of this vital act of Congress. First, I attended a three day workshop on water quality sponsored by the EPA along with many citizens and state and local officials trying to learn more about what this 1972 law would mean to them locally. Then I directed a state workshop to get this message out to citizens and local officials (also under the sponsorship of EPA). Later I helped develop a tape-slide show to be taken to small towns in Oklahoma to present these same facts before audiences unreached by the earlier workshops (this was also sponsored by EPA). This past year I have been appointed to two advisory committees to provide technical oversight on the development of the "208" planning process required in the 1972 act. One of these committees covers metropolitan Oklahoma City and the other covers all the state of Oklahoma minus the metropolitan areas. This is a very rewarding and challenging experience because the matter of areawide waste water management is the key to meeting the long range goals of P.L. 92–500.

This brings me to section 404. I have on my desk, copies of the House version (Wright-Breaux Amendments) passed last month. I also have the alternate amendments (Cleveland-Harsha Amendments) that were not incorporated in the final House version. Speaking as a professional geographer, it seems clear to me that what the House did violates the entire purpose of the original 1972 act. That purpose (although not actually stated in those terms) was to make it national policy to begin treating our waters from a *systems* perspective and to abandon the clearly ineffectual past policies of treating the nation's waters as though they did not constitute a true physical and biological system. Perhaps the House did take the action it did because it (section 404) deals with the less dramatic portions of the nation's water system, the out of sight wetlands and the thousands of small tributary streams and rivers draining into the major rivers. Increasingly, the evidence demonstrates that the quality of streamside vegetation and the condition of the stream channel itself provides—or is capable of providing—great potential for filtering undesirable elements out of the waters passing through. In short, a focus of our efforts on main rivers alone will not do the job, we can manage the tributary streams under the present provisions of section 404 to insure that high quality water enters the main channels of the nation's rivers.

I think that it is premature to drastically alter the law regarding section 404. The Corps of Engineers has published its guidelines for the three phases of implementation of the existing law (reluctantly it seems) and these guidelines appear to be workable and not an undue burden—either on the small agriculturalist or the demands on the regulatory agency. If problems develop after phase two and three are underway *then* Congress should review the situation but not now.

If the features of section 404 will provide further protection of our wetlands and streams and in so doing bring us the benefit of enhanced water quality with no dollar outlay for structures or maintenance, letting nature do it all for us, then we should see the process through. Learning to work with nature rather than against it seems to be the path of wise management and retaining the current elements of section 404 would be following this philosophy.

Sincerely yours,

MARVIN W. BAKER, Jr., Ph. D.,
Regional Vice-President and Chairman.

SIERRA CLUB—TENNESSEE CHAPTER,
Knoxville, Tenn., July 21, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We would greatly appreciate the inclusion of our statement, enclosed, in the hearing of July 27–28, 1976, on Section 404 of the Clean Water Act.

Thank you.

Sincerely yours,

WILLIAM SKELTON, *Chairman.*

STATEMENT OF THE TENNESSEE CHAPTER OF THE SIERRA CLUB FOR THE HEARINGS OF JULY 27–28, 1976, ON SECTION 404 OF THE CLEAN WATER ACT

The Tennessee Chapter of the Sierra Club, representing the four local groups in Tennessee (Volunteer Group, Memphis; Middle Tennessee Group, Nashville; Harvey Broome Group, Knoxville; Chattanooga Group, Chattanooga) of the Sierra Club, feel that at the present time it is premature to be amending Section 404 of the Federal Water Pollution Control Act, presently in Phase I of the three phase program. The entire program, as it is presently defined, should be allowed to proceed into effect before hearings are held and amendments taken up. However, as amendments are being considered we feel we must speak up at this time.

Our wetland areas are extremely valuable to our nation for their capabilities to break down and remove quantities of pollutants such as nutrients and organic wastes from their tributaries, to store flood waters and to help maintain the lower end of the food chain. We are deeply concerned about the impact the Wright-Breaux House Amendment will have upon our nation's wetland areas if its provisions become law.

We find the Senate Hart-Cleveland Amendment preferable to the Wright-Breaux House Amendment because it would write into law the exemptions and general permit program already set for Phases II and III in the regulations and it would provide a progress report for the Congress to review at the end of next year.

We feel we should point out additionally that the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not happen to fall inside the House's narrowed definition of "navigable waters."

In conclusion, the present wetlands protection under Section 404 has proven to be an excellent program to protect our wetlands and all efforts should be made to support and continue this program.

SIERRA CLUB—TENNESSEE CHAPTER,
Knoxville, Tenn., July 21, 1976.

Senator HOWARD H. BAKER, Jr.
Senate Office Building,
Washington, D.C.

DEAR SENATOR BAKER: Enclosed is a copy of our statement which we have sent to Senator Randolph for inclusion in the July 27–28 hearings on Section 404 of the Clean Water Act before the Senate Public Works Committee. We are speaking for the four local groups (Volunteer Group, Memphis; Middle Tennessee Group, Nashville; Harvey Broome Group, Knoxville; Chattanooga Group, Chattanooga) that comprise the Tennessee Chapter of the Sierra Club, numbering approximately 930 members, in the interests of protecting our wetlands.

We would be most appreciative of any help you might render in insuring that our statement be included in the hearing record.

We also urge that you, in the interest of protecting our nation's wetlands, support the Hart-Cleveland Amendment to the Federal Water Pollution Control Act.

Sincerely yours,

WILLIAM SKELTON, *Chairman.*

(The statement referred to precedes this letter.)

STATEMENT BY THE SOUTHERN FOREST PRODUCTS ASSOCIATION IN SUPPORT OF WRIGHT AMENDMENT TO WATER POLLUTION CONTROL ACT OF 1972

The Southern Forest Products Association is an organization of forest products manufacturers with operations in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North and South Carolina, Oklahoma, Tennessee, Texas, and Virginia. SFPA members represent almost half of the total Southern Pine lumber production, which is nearly one-third of the total U.S. domestic softwood lumber output.

The Association is concerned with the court-mandated regulatory program of the Army Corps of Engineers in conjunction with Section 404 of the Water Pollution Control Act of 1972 because of its potentially calamitous effect on forest management and timber supply in the South. The probable consequences of the program with respect to forestry can best be understood from analysis of forestland ownership in the region and attendant problems and needs.

Ninety-three percent of the South's 192 million acres of commercial forestland is privately owned, 20 percent belonging to industry and 73 percent to nonindustrial private owners. The latter category embraces almost two million individual ownerships, mostly in small individual tracts. The nonindustrial private lands provide two-thirds of the raw material for softwood lumber and plywood manufacture in the region.

The Association fears that implementation of Phases II and III of the Corps' 404 program would greatly diminish if not destroy the incentives of the nonindustrial private owners to grow trees and practice forestry. This concern arises from the fact that the definitions of "navigable waters" and "wetlands" under Section 404, as interpreted by the courts and the Corps, have been broadened in such incredible fashion as to include virtually every body of water, however small and insignificant, in the U.S. This, in turn, would project the Corps' permit authority into vast areas of commercial forestland in the South.

For example, Section 404 permits would be required for fill activities from forest road, culvert and bridge installations, fills at industrial sites, construction of water supply and log ponds and construction of drainage ditches or canals. Such permits

would be costly, difficult, and time consuming to obtain. The system would almost surely stifle the forestry incentive of small private owners.

The projected 404 program would greatly aggravate what is already a tenuous situation insofar as timber supply is concerned. While enormous in aggregate, the nonindustrial private holdings are individually small. Few of the nearly two million owners have the money or knowledge to practice forestry unassisted. As a result, the net annual rate of timber growth on their aggregate holdings is less than half of potential.

Improvement in this performance is an urgent national need, as indicated by disclosures of the Forest Service of the U.S. Department of Agriculture. The agency predicts that demand for forest products will double by the year 2000 and predicts further that the South will become the main source of supply because of its great potential for timber growth. To be able to fulfill these anticipated needs, the South must achieve corresponding increases in timber supply—mainly on the nonindustrial private forestlands.

In recognition of this, forest products companies have been donating seedlings, the service of professional foresters, and equipment to small landowners. Moreover, a 1973 Act of Congress created the Federal Forestry Incentives Program, authorizing the investment of $25 million annually in cost-sharing arrangements to help small landowners get started with tree planting and timber stand improvement practices.

While these programs have gotten off to an excellent start, all the good work will be undone and forestry incentives of the small landowners destroyed, should the Corps' 404 permit program be implemented and enforced.

If that should occur, the inevitable results would be timber shortages, limited supply and higher prices for lumber and plywood, and catastrophic inflationary trends in housing and other areas of the economy that are heavily dependent on wood products. Moreover, timber shortages in the private sector of forestland ownership would almost surely increase cutting pressures on the public sector—primarily the National Forests of the West.

The Association believes that the courts and the Corps have overlooked the fact that extensive forest management and tree growing have a highly favorable effect on water quality. This is well documented by the experience of the South between 1950 and 1970, when the inventory of standing softwood sawtimber was increased by 50 percent which brought corresponding improvement in environmental benefits. Planting and growth of trees is one of the most effective safeguards against soil erosion and the deposit of sediment in streams.

Those are the reasons why the Association strongly urges approval by the Senate Public Works Committee and by the Senate as a whole of Section 16 of S. 2710, as passed by the U.S. House of Representatives in overwhelming fashion.

Section 16 (the so-called Wright amendment) would amend Section 404 of the Water Pollution Control Act to restore the legitimate and meaningful definitions of "navigable waters" and "wetlands" to the Corps' permit authority. Legitimate wetlands would be thoroughly protected and the states would be encouraged to proceed with coastal zone planning. By the same token, forestry and farming activities in areas that do not remotely impact navigable waters or wetlands would be exempt from unnecessary regulation and control.

The Association, in conclusion, believes that the Wright amendment restores sanity and reason to an irrational situation affecting crucial sectors of the economy, and therefore is very much in the public interest.

The Senate Public Works Committee is thanked for the opportunity to present this statement.

SPORT FISHING INSTITUTE,
Washington, D.C., July 19, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building, Room 5121, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This Organization is pleased that on July 27 and 28, 1976 the Senate Public Works Committee will hold the *first* Congressional hearings on the Wright-Breaux Amendment (section 16) to S. 2710 that would drastically change the thrust of Section 404 of P.L. 92-500. We are, however, dismayed with the paucity of organizations being permitted to testify that oppose the Wright-Breaux Amendment.

The Sport Fishing Institute recognizes and appreciates the value of this Nation's wetlands. The unique habitat represented by wetlands is an integral part of many

fishes spawning requirements and the reproductive habitat requirement of various aquatic organisms that are part of the diet of many fishes that eventually enter sport and commercial fisheries. In addition, wetlands through their purifying qualities significantly contribute to improved water quality. There are no substitutes for wetlands; they cannot be mitigated. Because of the great value of wetlands this organization feels that they must be afforded the protection of a National treasure. The Wright-Breaux Amendment does not provide that protection. It delegates protection to the various states with only a few states having sufficient laws to protect wetlands. What will protect that irreplaceable resource until the states gear up to furnish that protection: We submit that nothing will protect them.

The sound, comprehensive three-phase Section 404 permit program promulgated by the U.S. Corps of Engineers on July 25, 1975, in the *Federal Register* is working. When phase three of that three-phase program goes into effect on July 1, 1977, all waters of the U.S. will be protected by the permit system. Modification of the permit system that would exclude certain agricultural and forestry practices that have minimal adverse environmental impact is acceptable. To that end, the Sport Fishing Institute supports Senate bill 3663 that would amend section 404 of P.L. 92–500.

Mr. Chairman, it is gratifying to know that the Senate will not act precipitously on so important a matter as the fate of this nation's wetlands as did the House of Representatives. Your Committee will give the hastily-conceived Wright-Breaux Amendment its first public hearing. We are confident that the hearing will impress upon your Committee that wetlands are worthy of federal protection. Further, we are confident that Government witnesses will demonstrate to the Committee that the existing permit system, with modification as called for in S. 3663, does and will allow both protection of wetlands and an orderly development of wetland areas that is compatible with the resource.

It is respectfully requested that this letter be made part of the record of the Public Works Committee's hearings on Section 404 of P.L. 92–500.

Sincerely yours,

GILBERT C. RADONSKI,
Executive Secretary.

SAN RAFAEL, CALIF., *July 22, 1976.*

Re S. 2710.

Senator JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, 4202 Dirksen Office Building, U.S. Senate, Washington, D.C.

DEAR MR. RANDOLPH: I hope you will oppose the Wright-Breaux amendment to S. 2710. Our remaining wetlands are vital in protecting the quality of our air and water as well as wildlife habitat. The Federal Water Pollution Control Act's Section 404 gives some overall protection to our nation's wetlands. These waters and tidelands are interrelated, and piecemeal legislation by different states without overall national jurisdiction would offer no protection at all.

The U.S. Army Corps of Engineers is doing a good job under Section 404 to consider environmental factors before the authorization of dredge and fill operations. Our wetlands need this special consideration. Please continue this protection.

I would like my letter read into the record at the meeting on S. 2710 on July 27–28. Thank you.

Sincerely yours,

JEAN STARKWEATHER.

SPANGLE, WASH., *July 17, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee,
4202 Dirksen Senate Office Building,
Washington, D.C.

MY DEAR SENATOR: Please make my comments a part of the record of the hearing of July 28–27, 1976, on Section 404 of the Clean Water Act.

In my opinion, Section 404 is one of the most beneficial parts of the Federal Water Pollution Control Act and to gut this provision now as does the Wright amendment in H.R. 9560 would be a giant step backward in the fight to clean up

the nation's waterways. As a geologist, I am keenly aware that wetlands are very important for reducing the sediment and nutrient loads which streams carry to bodies of standing water. In my native Indiana, 90% of the original wetlands have been destroyed, and consequently eutrophication and its concomitant choking of lakes with undesirable vegetation is destroying the aquatic resources of that state.

If the public, through its taxes, is expected to build elaborate sewage treatment facilities to protect the nation's waters by removing nutrients, how can the destruction of our remaining wetlands, the most important natural nutrient-removing agent, by special interests be justified?

I sincerely hope that the Senate will do nothing to weaken the present form of Section 404.

Yours very truly,

W. K. STEELE.

MILL VALLEY, CALIF., *July 21, 1976.*

Re hearings on Wright-Breaux amendment to Water Pollution Control Act of 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Building,
Washington, D.C.

SIR: We have just been informed by the Wildlife Management Institute that your committee has limited the number of witnesses wishing to oppose the above amendment to two organizations who will appear on July 28th. We wish to protest this as being an attempt to destroy remaining wetlands in the United States by stacking hearings with friends of developers.

Conduct like the above when preceded by the lack of congressional debate during the Wright-Breaux fiasco when only 20 minutes was allotted for debate, does nothing to enhance faith in the legislature and this administration.

It is not too late to pitch in and save our wetlands and the valuable fish harvest now needed more than ever. Please do use your influence to reverse a most destructive process. Please make this a part of the hearing record.

Sincerely yours,

FRANCIC STRAUSS.
KATHERINE STRAUSS.

TENNESSEE CONSERVATION LEAGUE,
Nashville, Tenn., August 10, 1976.

Hon. HOWARD H. BAKER, Jr.,
3311 Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR BAKER: Thank you for your letter of July 26, 1976 concerning your interest in Section 404, the Federal Water Pollution Control Act.

Enclosed you will find a short statement that we would appreciate having included in the public record on the hearing on Section 404.

Sincerely,

ANTHONY J. CAMPBELL,
Executive Director.

Enclosure.

STATEMENT PREPARED FOR PRESENTATION TO THE SENATE PUBLIC WORKS COMMITTEE RELATIVE TO SECTION 404 PERMIT PROGRAM OF THE 1972 FEDERAL WATER POLLUTION CONTROL ACT

The Tennessee Conservation League is a broad based, statewide, conservation organization that promotes the wise use of our renewable natural resources.

The League would like to take this opportunity to encourage the Senate Public Works Committee to support Section 404 of the 1972 Federal Water Pollution Control Act. The League feels that the Wright Amendment, if passed by the Senate and signed into law would lead to the destruction of much of the extremely valuable wetland resources found in the United States. We feel that the Cleveland-Harsha Bill (Hart Bill) would alleviate the unfounded fears of many of those who oppose the Section 404 program.

Although we feel that the 404 regulations as promulgated by the U.S. Army Corps of Engineers may not yet be perfect, we do feel that Congress should give the Corps of Engineers and the Environmental Protection Agency an opportunity to work out the problems associated with the regulations before taking legislative action that would emasculate the original intent of the law and any Federal effort to preserve our extremely valuable wetlands.

The Tennessee Conservation League would like to take this opportunity to thank the Public Works Committee for the opportunity to provide input into these deliberations.

TENNESSEE ASSOCIATION OF CONSERVATION DISTRICTS,
Moscow, Tenn., June 28, 1976.

Hon. HOWARD H. BAKER, Jr.,
U.S. Senator,
3311 Dirksen Building,
Washington, D.C.

DEAR SENATOR BAKER: I talked to Rick Herrod on Friday, June 25th, concerning the direction the Senate may take on the modification of Section 404 of the Federal Water Quality Control Act.

Those of us in conservation districts and in local government feel that the Corps of Engineers' authority to administer permits for dredge and fill activities far exceeds the bounds of good government and authorities necessary to maintain a quality environment.

In order to document this I will in a brief narrative give you the efforts of local government to obtain emergency flood control funds to repair damage on Wolf River in Fayette County, Tennessee.

On March 12, 1975 over 8 inches of rain fell on Tennessee. Many rivers and their tributaries flooded various parts of the state causing extensive damage. The Wolf River was out of its bounds closing all north-south roads in Fayette County except one in the eastern section. Flood waters were in many homes and businesses in the towns of Moscow and Rossville. The channel of the river was partially blocked with sediment and debris prior to this flood. After this flood several portions of the main channel were completely blocked increasing the hazards from future flooding.

At this point a request was made to the USDA Soil Conservation Service for emergency assistance under Section 216 of the Emergency Flood Control Act of 1950.

The request was made jointly by the Fayette County Court and the Fayette Soil Conservation District. It was supported by the towns of Moscow and Rossville and the local sportsmen's Association. The request was given further support by the Chickasaw Environmental Association and individual members of other regional environmental groups.

The Congress, in the Fall of 1975, passed a supplemental appropriation bill providing funds for this type of work and in January 1976 the Fayette County Court adopted a resolution assuming local sponsorship of the project and formally requesting that the work be done. At this time the USDA Soil Conservation Service solicited comments from various other agencies and organizations as part of the environmental impact statement already prepared for this type of work.

These comments were incorporated in the work plan and the application for a 404 permit from the Corps of Engineers was filed in March 1976. Twice-weekly checks were made by the Soil Conservation Service on the status of the permit application.

When, by mid May no action had been taken, the local sponsor (i.e. Fayette County Court) attempted to determine the status of the permit. The District Engineer would *not* respond to the request for information. Conversation with other employees of the Corps office in Memphis indicated that the Corps was processing its own projects first and others would be done at an undetermined later date. Contacts by the offices of Senator Brock, Congressman Beard and Congressman Whitten failed to significantly change the status of a permit application for emergency work.

As of this date no action has been taken by the Corps on the application by the Fayette County Court for emergency channel restoration work on Wolf River.

It is abundantly clear to me, Senator, that the Corps of Engineers is not presently complemented with the manpower nor the expertise to handle the volume of 404 permits here. It is quite probable that similar situations exist throughout the country.

I urge you to investigate the reason for the delay in this particular request and to consider legislation which would return the Corps authority to its original jurisdiction, exempt certain dredge and fill activities and delegate the responsibility for others to state and local government.

Sincerely,

STEVE BRUNSON, *President.*

DEPARTMENT OF THE ARMY,
MEMPHIS DISTRICT, CORPS OF ENGINEERS,
Memphis, Tenn., July 19, 1976.

Hon. HOWARD W. BAKER, Jr.,
U.S. Senate,
Washington, D.C.

DEAR SENATOR BAKER: This is in response to your letter of July 1, 1976 requesting comments on a letter that you received from Mr. Steve Brunson of the Tennessee Association of Conservation Districts. Mr. Brunson's letter outlined the difficulties and delays that the Fayette County Soil Conservation District has experienced in obtaining a Section 404 permit for deposition of dredged material in connection with channel restoration work on the Wolf River.

The jurisdictional extent of Section 404 of Public Law 92-500 was greatly expanded with the publication of interim final guidelines in the Federal Register on July 25, 1975. As agencies and the public became aware of this expanded jurisdiction the volume of applications for Section 404 permits increased greatly. The complexity of information required to properly process an application also increased with the publication of the guidelines. At the onset of the expanded jurisdiction, the Memphis District was not adequately staffed with personnel that had all of the expertise required to gather, evaluate and process the information at the same rate that applications were being received; consequently a backlog of applications developed. Manpower restrictions dictated that the district utilize personnel on-board. Personnel have been reassigned within the district in order to give a timely response to permit applications, but there is some delay in this method due to the need for these reassigned personnel to develop the necessary expertise.

Since applications for permits were being received faster than they were being processed the district initiated the system of processing these applications in the order in which they were received. We have concurrently initiated the procedural requirements of 33 CFR 209.145 on those applicable Corps of Engineer projects in the same systematic order. The processing of the Corps projects is not given priority over applications for permits by other agencies or individuals; rather, the fact is that the District's projects are processed based on the date that the required data and determinations are completed relative to the date that this same information on permit applications is completed. The Memphis District does have a number of authorized federal projects on which the procedural requirements are being delayed just as the applications from other agencies and individuals are.

The application for a permit was received from the Fayette County Soil Conservation District on March 5, 1976. As stated in Mr. Brunson's letter to you, we have been in frequent contact with the applicants. We have, in every instance, given them the status of their application, as well as information on other permit work that has impacted on the delay in processing their application. Some of the information and projections given to the applicant proved to be overly optimistic, due to delays on applications that were already being processed. One such delay is on applications received from the Obion-Forked Deer Basin Authority, about which I wrote to you on June 11, 1976. I can assure you that the District has, and will continue to furnish the best available information to the applicants at their request.

An initial on-site contact has already been made with officials of the Conservation District. We are currently scheduled to begin an on-site wetlands inventory for this application this week. I anticipate that the inventory will require about one week and we can hopefully issue a public notice for the requested permit shortly after that time.

As you are aware, President Ford recently directed a deferral of implementation of Phase II of the Section 404 permit program for a period of sixty days. The deferral may, however, offer some immediate relief to the Fayette County Soil Conservation District, since all of the activity proposed by them is on streams that will be under Phase II or III jurisdiction. I will explain the options available to them within the next week.

Again, let me assure you that I am striving to reduce the backlog of action on permit applications so that delay to work will be minimized or eliminated. I will also be glad to furnish any applicant all available information at his request. If I can furnish you any additional information or be of further assistance, please let me know.

Sincerely,

ROBERT W. LOCKRIDGE, JR.,
Colonel, Corps of Engineers,
District Engineer.

JULY 20, 1976.

Re For the record of the hearing July 27-28 on section 404 of the Clean Waters Act.

Hon. MIKE GRAVEL,
Senate Public Works Committee,
Senate Office Building,
Washington, D.C.

DEAR SENATOR GRAVEL: We are very much concerned about Section 404. As the whole three-phase program is not yet in effect it is really too soon for holding hearings or considering amendments. If we do have amendments the Hart-Cleveland is by far the better one as it would write into law the exemptions and general permit program already set for Phases II and III, would provide a progress report for Congress to review at the end of the year, and would clarify the issues mistakenly raised by those who were made needlessly anxious by the early press releases of the Army concerning 404. These claims were so patently false that the Assistant Secretary of the Army later disowned them as "false" and "misleading." 404 would protect our health by controlling the discharge of polluted dredge materials into drinking water supplies and would protect our wetlands which we now realize are worth many thousands of dollars for flood control, pollution control, habitat of commercial and other forms of animal life and save us money.

We believe that the original intent was to protect all waters of the U.S. as they all need this for survival.

The Wright-Breaux Amendment is nothing new but only a rehash of the 1899 Rivers and Harbors Act which has proven to be so unsatisfactory. Besides that it was adopted by the House Public Works and Transportation Committee *without* testimony by EPA, the Engineers Corps, Dept. of Interior, or citizen groups. Neither was it referred to the subcommittees whose members and staffs have much expertise and experience in such matters. It is difficult to obtain good legislation when it is steamrolled through in this fashion.

Please do not consider amendments to other sections of the Act until after the Senate has held hearings next year on the Rockefeller Commission which will be the final Report on Water Quality.

Yours truly,

ETHEL W. THORNELEY.

Mr. and Mrs. R. Poland, Mr. and Mrs. R. Angst, Mr. and Mrs. J. LaBerge, Mr. and Mrs. A. Lombard, Mr. and Mrs. D. Doerr, Mr. and Mrs. C. Butcher, Mr. and Mrs. E. Park.

TRINITY RIVER AUTHORITY OF TEXAS,
Arlington, Tex., July 23, 1976.

Hon. EDMUND S. MUSKIE,
145 Russell Senate Office Building,
Washington, D.C.

DEAR SENATOR MUSKIE: It is my wish to have the attached statement of the Trinity River Authority of Texas included in the official record of the hearings by the Subcommittee on Environmental Pollution of the Senate Public Works Committee on Amendment of Section 404 of P.L. 92-500 that will be held on July 27 and 28.

With highest personal regards and best wishes, I am,

Yours very truly,

DAVID H. BRUNE.

STATEMENT OF THE TRINITY RIVER AUTHORITY OF TEXAS ON AMENDMENT OF SECTION 404 OF PUBLIC LAW 92–500

The Trinity River Authority of Texas is a conservation and reclamation district created by the Texas Legislature in 1955 for the purpose of managing the soil and water resources of the Trinity River Basin. The Basin itself contains 6.4 percent of Texas' land area and is the home of 20 percent of the state's population.

The Authority is gravely concerned with the impact of the court ordered interpretation of Section 404 of P.L. 92–500. We most firmly believe that if applied in its current stringent form, Section 404 will have a destructive impact on human endeavors in such areas as water supply development, agriculture, industry, transportation, housing and recreation throughout the country. We also believe that when P.L. 92–500 was passed, neither the interpretation of Section 404 nor the resulting impact were intended by the members of the House and Senate.

Section 404 is a totally unrealistic and abrasive program for the following reasons:

—It is totally administered by the federal government, despite the fact it has a tremendous impact down to the grass roots level.

—It focuses on the preservation of fish and wildlife and the maintenance of water quality to the complete exclusion of any other considerations, and in effect amounts to an unworkable back door approach to federal land use planning.

—Will result in either the creation of another monolithic bureaucracy or will stand as a classic example of another unkept federal promise as a result of the massive scope of activities it has the responsibility for controlling.

The State of Texas is faced with an urgent requirement to develop additional water resources. With the extension of the Corps of Engineers Section 404 permit program to cover almost every flowing stream and body of water in the state, we have been placed in a position where both our existing and future water requirements may not be fulfilled. It is the opinion of the Trinity River Authority that the Wright amendment of Section 404 included in S. 2710 provides for a more equitable and realistic approach to the dredge and fill permit program. By limiting the application of the Section 404 permits to truly navigable streams and adjacent wetlands, a major step will have been taken toward the protection of delicate ecosystems and at the same time local government will retain the responsibility for local actions.

The Trinity River Authority and the citizens of the Basin fully understand and share the concern for environmental protection. We ask you to understand and appreciate our pressing requirement for additional water supplies and the unnecessary delays that the current Section 404 interpretation will cause in satisfying these requirements. The Wright Amendment is the voice of reason and responsible change as documented by the 339 to 5 vote it received when it passed the House. We interpret this showing of massive support as agreement with our position that the attention of federal agencies should be directed at problems more deserving of their time. The Trinity River Authority fully supports the Wright Amendment and respectfully requests that it be put to a Senate vote at the earliest opportunity.

UPPER COLORADO RIVER COMMISSION,
Salt Lake City, Utah, July 12, 1976.

Hon. EDMUND S. MUSKIE,
Chairman Subcommittee on Environmental Pollution, Committee on Public Works, U.S. Senate, 145 Russell Senate Office Building, Washington, D.C.

DEAR SENATOR MUSKIE: Enclosed is a copy of a resolution adopted by the Upper Colorado River Commission at a special meeting on July 7, 1976.

This resolution is in support of the amendments to section 404 of P.L. 92–500 as approved by the House of Representatives in its amendment of S. 2710, The Federal Water Pollution Control Act Amendments of 1976.

Sincerely yours,

IVAL V. GOSLIN,
Executive Director.

Enclosure.

Resolution of Upper Colorado River Commission

RE: AMENDMENTS TO SECTION 404 OF P.L. 92–500, THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

Whereas, the House of Representatives of the United States Congress on June 3, 1976, by an overwhelming vote of 339 to 5, did pass H.R. 9560 cited as "The Federal Water Pollution Control Act Amendments of 1976"; and

Whereas, the House of Representatives, by a vote of 234 to 121, almost a two to one majority, did incorporate into said H.R. 9560 an amendment to section 404 of P.L. 92–500 by Congressman James Wright of Texas which defines the terms "navigable waters" and "adjacent wetlands"; limits application of the Federal permit program to navigable waters and contiguous or adjacent wetlands; adds, in the interest of environmental quality, adjacent wetlands to be under the permit process of section 404 of P.L. 92–500; allows States that desire to do so to extend the Federal permit process to waters other than navigable waters or adjacent wetlands; and provides for administration of the permit process of section 404 of P.L. 92–500 by States possessing specified qualifications; and

Whereas, the Wright amendment confirms what appears to be the original intent of section 404 of P.L. 92–500; and

Whereas, the Wright amendment provides a practicable solution to the seriously complex and unreasonably expensive problems created by the U.S. District Court for the District of Columbia in *Natural Resources Defense Council* v. *Callaway* in its interpretation of section 404 of P.L. 92–500; and

Whereas, the President has extended for two months the implementation of the second phase of the U.S. Army Corps of Engineers' regulatory program for disposal of dredged or fill materials to lakes with more than five surface acres, primary tributaries of inland navigable waters and nearby wetlands which was scheduled to be initiated on July 1, 1976; and

Whereas, the third phase of said regulatory program which will further expand jurisdiction of the Corps of Engineers to regulate discharges of dredged or fill materials into other waters, generally upstream to the headwaters, is scheduled to be initiated on July 1, 1977; and

Whereas, the Wright amendment to section 404 of P.L. 92–500 has nation-wide support of many diverse organizations interested in the proper conservation and utilization of the natural resources of the United States in promotion of the social, economic, environmental, and general welfare of its citizens; and

Whereas, enactment of the Wright amendment as soon as possible will aid in preventing the waste of money, manpower, and time by Federal, State, and local governments required to implement the second and third phases of the permit process under section 404 of P.L. 92–500; now, therefore, be it

Resolved by the Upper Colorado River Commission at a special meeting convened at Jackson, Wyoming on July 7, 1976, That said Commission strongly supports the Wright amendment and hereby urges the United States Senate to approve S. 2710, as amended by the House of Representatives, at the earliest practicable date in the second session of the ninety-fourth Congress; be it further

Resolved, That copies of this resolution be transmitted to the Congressional delegations of the four member States of the Upper Colorado River Commission who are hereby requested to do everything within the powers of their respective offices to carry out the spirit and objectives of this resolution, to the Honorable Jennings Randolph, Chairman of the Committee on Public Works of the United States Senate, to members of the Subcommittee on Environmental Pollution of the Committee on Public Works of the United States Senate, and to other interested entities.

Certificate: I, IVAL V. GOSLIN, Executive Director of the Upper Colorado River Commission, do hereby certify that the above Resolution was adopted by the Upper Colorado River Commission at the Special Meeting held in Jackson, Wyoming on July 7, 1976.

Witness my hand this 9th day of July, 1976.

Ival V. Goslin,
Executive Director.

LAKELAND, FLA., *July 22, 1976.*

Re the record of the hearing of July 27–28, 1976, on section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: Our country must maintain a balanced perspective in regulating the protection of our water resources; short-term consideration of industry profit and convenience must not be our national criterion for water use. Long-term effects of operations which to industrial interests may seem perfectly harmless (such as dredge-and-fill) must be considered.

To the eye of a successful businessman, oriented to producing higher quantity and quality of product and to efficient use of raw material, a wetland may appear as an unused piece of real estate, with perhaps some potential use. But that wetland, as it exists, is valuable in that it can break down and remove pollutants from the water; it feeds and shelters a vital part of our own food chain, breeds fish; as well as providing an overflow area for flood waters. It is the government's job to protect all of us, especially that good businessman, from the hasty and ill-informed destruction of such valuable resources.

Please fight the passage of Senate Bill 2710; Test all three phases of Section 404 before considering any amendment.

Sincerely,

ANN DICKINSON VALK.

VIRGINIA FORESTRY ASSOCIATION,
Richmond, Va., July 15, 1976.

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee,
U.S. Senate,
Washington, D.C.

DEAR SENATOR RANDOLPH: On behalf of the Virginia Forestry Association and its 1100 members in Virginia, we would like to make known for the record our support for the Wright amendment as it was attached to H.R. 9560, the Water Pollution Control Act of 1976 passed by the House of Representatives. It is my understanding that committee hearings are scheduled for July 27th and 28th with mark-up beginning July 29th. Inasmuch as we will probably not be able to attend these hearings, we would like to make known our strong support for the Wright amendment through this letter and through our attached newsletter dated June 9, 1976.

We believe it is of utmost importance for navigable waters to be redefined in their traditional sense, and we wholeheartedly support the President's action in delaying for sixty days Phase 2 of the Corps of Engineers regulations. We feel these regulations as structured by the courts and the Corps of Engineers are utterly ridiculous from a standpoint of enforcement and common sense. To think that a forestland owner would have to obtain a permit in order to harvest his timber and carry it across streams flowing five cubic feet per second, just boggles the mind. These measures are so obviously counterproductive, and fraught with red tape and bureaucratic bungling that we feel a very important resource of Virginia—its timber—would be significantly wasted. Our position is that a great deal of timber would be taken off the market because many landowners will not "fool with government permits" in order to comply with these new Corps of Engineers regulations. We emphasize this very strongly because the land ownership pattern in Virginia is largely in small private blocks, where timberland owners make sales very frequently.

Again our position is summed up on the enclosed newsletter which we sent to our members June 9, 1976. We do hope you will take these comments into consideration during your hearings. Also attached is a copy of our legislative position statement as of May 17, 1976 when our Board of Directors met with our Congressional delegation in Washington. You will note item 3 includes support for the Breaux amendment at that time. Thank you for your attention in these matters.

Sincerely,

CHARLES F. FINLEY, Jr.

House Votes To Curb Corps of Engineers Jurisdiction

Landowners, conservationists and the forest industry won a legislative battle last week when the U.S. House of Representatives voted to restrict the Corps of Engineers authority to those waters which are truly navigable. The vote came June 3 and was 234 to 121 in favor of an amendment which re-defined "navigable waters" for the U.S. Army Corps of Engineers dredge or fill permit authority under Section 404 of the Federal Water Pollution Control Act of 1972. The amendment was attached to H.R. 9560, the Water Pollution Control Act of 1976, which passed by a vote of 339 to 5. The Virginia Forestry Association supported this amendment (see item #3 on the enclosed Legislative Bulletin). As drafted, it was known as the Breaux amendment, but at the last minute on the floor of the House Rep. James C. Wright (D-Tex.), ranking majority member of the Committee on Public Works and Transportation, offered a substitute to the Breaux amendment. The Wright compromise, which Breaux supported, was necessary to insure defeat of an amendment introduced by Reps. James C. Cleveland (R-N.H.) and William H. Harsha (R-Ohio). The Cleveland-Harsha amendment would have locked existing Corps regulations into law and was opposed by farming and forestry interests.

The Wright proposal preserves the Breaux amendment's definition of navigable waters as "all waters presently used, or susceptible to use by reasonable improvement," and would: include protection of wetlands lying adjacent and contiguous to "navigable waters, "which is almost the same as the current Corps jurisdiction under Phase I of the current Section 404 regulations; (2) allow, at the discretion of the states and the Corps of Engineers, joint agreements on regulation of additional waters, with the state or Corps of Engineers having the right to revoke the agreement at any time; (3) authorize issuance of general permits, but specifically exempting normal farming, forestry, and ranching activities, which include the construction and maintenance of forest roads and drainage ditches; (4) exempt federally financed projects for which environmental impact statements have been submitted; and (5) allow the Corps to delegate authority to the states to issue dredge or fill permits if a state is capable of carrying out the program and it is in the public interest.

The Senate has already approved S. 2710, a bill similar to H.R. 9560 but it does not contain a provision to correct Section 404. Thus, our Senators must be shown the importance of this issue. Chances to achieve final passage of the Wright amendment are greatly improved because of the expanding support from farm, forestry, ranching and road construction groups, and most states. However, if the Wright amendment or similar corrective action is not taken by the Senate, Phase II of the Corps interim final regulations will go into effect on July 1 this year. Phase II moves the Corps permit program into all primary tributaries of Phase I rivers, all lakes five acres and larger, and all wetlands adjacent to those waters. Phase III, which includes all smaller streams flowing 5 cubic feet per second and their attendant wetlands, would go into effect on July 1, 1977. This would expand the Corps' jurisdiction over rivers from 50,000 miles to over 3.5 million miles, and from approximately 50,000 miles of lake shorelines to 4.7 million miles.

LUMBER GRADING WORKSHOP

The VPI Cooperative Extension Service is sponsoring a 4-day workshop June 15–18 on hardwood log and lumber grading. The sessions will be taught at Dabney S. Lancaster Community College at Clifton Forge. The workshop is designed to provide a working knowledge of hardwood log grades and their relationship to lumber grades and product utilization. Cost of the course is $50 per person. The Virginia Forestry Association, along with several other organizations, is helping to co-sponsor the workshop. Application blanks may be obtained from the VFA office.

MONONGAHELA: A COMPROMISE BILL

Following its hearings in March, the Senate Agriculture and Interior Committees have now reported out a bill which compromises some of the provisions of Senator Humphrey's bill S. 309 (supported by VFA) and Senator Randolph's S. 2926, which was a very restrictive and proscriptive bill written by preservationist groups. The compromise bill, called "Humphrey's amended S. 3091," may be voted on by the full Senate within the next several weeks. VFA took the position earlier this spring that S. 3091 provided for the greater amount of flexibility in supervision of our 155 National Forests in terms of forest management and

utilization of forestry research findings from the past 75 years. In short, we felt S. 3091 would allow the USFS foresters to practice forestry with a minimum of red tape and governmental hassle. Although very little "prescription" is written into the amended S. 3091, it includes such phrases as "promulgate regulations," "guidelines and standards," and "guidelines which prescribe," as well as provisions for a slower rate of harvest of old growth sawtimber in the Northwest than some forest products companies would like. Clearly, the bill considers more than just forestry economics, but the U.S. Forest Service says it can live with the amended bill. At the very least, the new bill does clear up the confusion created by the federal courts' interpretation last summer of the original 1897 Organic Act. If the amended S. 3091 is passed by Congress, it will be none too soon to save jobs and businesses in the Virginias and Carolinas affected by the national forest timber embargo. Just in time too, as homebuilding is finally climbing out of the doldrums and again creating a demand for lumber. VFA is still urging, however, that the bill be further amended before passage.

VFA BOARD SPONSORS CONGRESSIONAL LUNCHEON

On May 17 the VFA Officers and Directors met in Arlington for their spring board meeting and legislative briefing on national forestry issues. As a result of this meeting the VFA Board of Directors adopted positions on six items, which are summarized in the enclosed Legislative Bulletin. Following the briefing, the Board hosted a luncheon in the Capital for the Virgina delegation where the VFA positions were presented. We were pleased that both Senators Byrd and Scott and 8 of our 10 Congressmen were able to attend.

TAX CREDIT FOR HOME INSULATION

The Senate Finance Committee voted last week to allow Americans to subtract from their income tax bill 30 percent of the cost of insulating their homes, up to $750. This would mean a maximum tax credit of $225 and would cost the Treasury $300 million a year. The tax credit was one of several energy-conservation measures written into a broad tax bill on which the Committee expects to complete work soon.

FALL MEETING, ANNUAL MEETING DATES

October 1 and 2—mark it down now. Those are the dates of our fall meeting in Roanoke. This is for the *whole* family, just like last year. We're getting our program together now and will also be lining up some lively entertainment. In case you're a VPI or VMI football fan, both teams are playing on their home ground. Saturday, October 2, so you'll just be a short distance from either Lexington or Blacksburg. Our meeting will end in time for you to make the game. * * * Also, the dates for our 1977 Annual Meeting are set—February 9-10 in Williamsburg at the Lodge. (All other organizations, please take note: February 9 & 10 are VFA dates!)

GOVERNMENT REORGANIZATION

A state study commission studying the organization of state government has issued a report containing recommendations that would, if implemented, bring about rather sweeping changes in state government. Some changes might increase the efficiency and effectiveness of state government, but many of them appear to raise some very fundamental questions relating to the industry of agriculture and its relationship with state government. For example, the present authority of citizen boards and commissions would be substantially reduced, shifting the regulatory and policy-making authority normally exercised by the citizens boards to the agency staff and agency heads appointed by the Governor and hired by the state. The question the agricultural industry must answer relating to this recommendation is whether or not it wants such policy and regulatory authority to be vested solely in agency personnel, or continue to be vested in citizen boards and commissions such as the Virginia Department of Agriculture Board, the Water Board and others. Other recommendations call for the creation of a new Dept. of Commerce (which would absorb most of the Dept. of Agriculture). The Dept. of Agriculture would be renamed the Dept. of Agriculture and Economic Development.

"KEEP VIRGINIA BEAUTIFUL" AWARDS

Each year Keep Virginia Beautiful, Inc. and Keep America Beautiful, Inc. recognize programs that contribute substantially to a cleaner environment. Awards are offered for outstanding achievement in the following program categories: state, county, small community (pop. under 25,000), mid-sized community (pop. 25,000–75,000), and large community (pop. over 75,000). Any organization or group conducting an ongoing citizen education/action program to eliminate litter as an integral part of an environmental improvement effort is eligible. Entries must be received by July 31, 1976 in the office of Keep Virginia Beautiful, Inc., 110 East Franklin Street, Richmond, Virginia 23219. Telephone 804–648–3776. Please write for the application form. First place winning entries in each category will be sent to New York to compete on the national level for the Keep America Beautiful Awards.

HOUSING FORECAST DOWN

A slight dip in projected housing starts has been forecast by the National Association of Home Builders. NAHB now foresees 1,588,200 starts this year, instead of the 1,605,600 units projected earlier. Starts for 1977 were also adjusted downward, from 1,758,500 to 1,739,800 units. The slight modifications, NAHB explains, reflect a change in interest rate assumptions. Still, the latest forecast for 1976 starts are 36.9% over starts recorded last year. NAHB projects 615,800 starts in the South for this year.

WOOD I. D. KIT

What makes cherry wood different from walnut? Do you know what kind of wood is used for bowling alleys, your dining room table, baseball bats, or telephone poles? These questions are answered in a "wood identification kit" now on the market. The kit teaches identification for 20 different kinds of wood commonly used in furniture, housing, skis, fences, ball bats, railroad ties, and many other items. If you are a teacher, 4–H leader, interested in scouting, or a day camp director you may want to use one of these kits. The wood samples are identified and stored in styrofoam compartments for safe keeping and easy handling. The mailing box is designed for use as both a display unit and storage container. The complete kit is available for $20.00, from Cabell Forestry Services, 2649 Jefferson Park Circle, Charlottesville, Virginia 22903.

TIMBER CRUISING SHORT COURSE

A two day short course in variable plot (Bitterlich, prism) sampling methods will be held at the Germanna Community College, Fredericksburg, Tuesday and Wednesday, June 15–16, 1976. Germanna is between Culpeper and Fredericksburg off Route 3 in a wooded section on the banks of the Rapidan River. The course, which is being offered as a service to practicing foresters, will cover the basic principles of this sampling method including instrument selection, determination of "in" trees, determining plot radius factor, volume per acre and basal area per acre estimates, and other practical applications. A combination of classroom instruction and in-the-woods exercises will be employed. Training sessions will run from 8:30 a.m. to 5:00 p.m. on both days. Equipment needed will include a hand compass, a pair of calipers, a 100′ cloth tape, a clinometer or abney level, and a clipboard. Prisms will be provided. Further details from Dr. Harry Haney, Extension Service, Cheatham Hall, VPI & SU, Blacksburg, VA 24061.

AUCTIONS, EMPLOYMENT

Wanted.—Plant Manager for furniture plant in southwest Virginia; minimum of 3–5 yrs. experience. Address inquiries to Virginia Manufacturing Corp., Pennington Gap, Virginia 24277.

Auction.—Logging equipment, Sat., June 19th, 10:30 a.m., Cumberland, VA. Items include Drott Model 40 BLC feller buncher, 24 in. cutter head w/collector; J. D. feller buncher 544B w/20 in. Rome cutter, head & accumulator (new in 1975); Prentice loader; 4 Timberjacks, one w/grapple; 7 log trailers; Low boy 20′ deck; two 1976 Mack road tractors 10,800 mi. and 14,600 mi; other trucks and tractors. For descriptive brochure contact Ownby Auction and Realty, Hermitage Road, Richmond, VA—804–358–8493.

Auction.—Logging equipment, Sat., June 26th, 10:30 a.m., Waverly, VA. Franklin logger 142XL w/grapple, 28" tires; 3 Franklin loggers w/grapple, 2 w/28" tires; AC HD6B bulldozer, 10' Angle Blade & Winch; Prentice D100 loader; four 1970 Chevrolet tractors; 1969 Chevrolet tractor; and many other tractors, trailers, chainsaws and equipment. All well-maintained. Details from Ownby Auction.

Virginia Forestry Association: Policy Statement on National Legislative and Regulatory Issues

PRESENTED BY THE BOARD OF DIRECTORS TO THE VIRGINIA CONGRESSIONAL DELEGATION, MAY 17, 1976

1. Management of the National Forests (the Monongahela Issue)

Court action has led to the closing of the National Forests in Virginia for the cutting of timber. Without logging and the removal of timber, forest management cannot be practiced. Since about one-third of the counties in Virginia contain large acreages of National Forest land, the curtailment of timber sales affects a large portion of the citizens in the western part of Virginia, particularly the smaller loggers and sawmill operators. Counties such as Bath, Highland and Craig depend heavily upon revenue from timber sales to support their school systems as they receive no other revenue from federal land.

The Virginia Forestry Association recommends prompt Congressional action so that the National Forests can be managed properly. The advances made in modern scientific management techniques, proven sound by over seventy-five years of forestry research, should not be negated by court interpretation of a law passed in 1897. We would hope that our Virginia delegation to Congress would support extending past practices and timber sales until new and desirable legislation can be enacted.

2. Cooperative Federal Forestry Programs

We support the following levels of funding for fiscal year 1977. Support for these long-standing programs is essential and we believe consistent with the public interest.

Cooperative Federal program	Fiscal year 1977 (millions)	Virginia's share in 1976
Clarke-McNary-2 (fire control and suppression)	$22.6	$622,000
Cooperative forest management	5.6	220,000
Rural fire funds	3.5	53,215
Forestry incentives program	15.0	861,000
Extension Service forestry	5.0	(1)
McIntire-Sfennis (forestry research)	11.77	224,000
Title IV (genetic tree improvement)	1.5	56,000

[1] New program.

3. Breaux amendment, redefining "navigable waters"

The Virginia Forestry Association supports the "Breaux Amendment" to H.R. 9560 which would limit the permit authority of the Army Corps of Engineers in dredge and fill operations. Recently a Federal district court required the Corps to expand its authority far beyond traditional bounds. The results of this decision is that the Corps is regulating "in the public interest" all forest road construction, drainage and diking activities in wet areas and all culvert construction involving fill in streams. The Breaux amendment (sponsored by Rep. John Breaux of Louisiana) would restrict the Corps to truly navigable waters as they have been traditionally defined. The amendment was passed 22-13 by the House Public Works Committee last month.

4. Tax Reform Bill (Limitation of Artificial Losses)

Provisions in the "Tax Reform" bill, H.R. 10612, would raise taxes on timber ownerships, and raise the top tax on capital gains from 35% to 42%. Also, the provision termed "Limitation on Artificial Losses" (LAL) would disallow the deductibility of timber management expenses, except taxes and interest, an any given year where they may exceed timber income in that year. These expenses would be deferred until such time as timber income may be large enough to offset them. The expenses that would thus be disallowed would include regular

maintenance costs such as fire, disease, rodent control, thinning, fertilizing and any other management costs, apart from interest and property taxes. The provisions of LAL apply only to individuals, family owned corporations, and Subchapter S corporations with 10 or fewer stockholders. The Virginia Forestry Association opposes these provisions because they would be a disincentive to good forest management.

5. Clean Air Act Amendments

VFA opposes amendments (S. 3219, H.R. 10498) to the Clean Air Act of 1970 which contain language affirming and strengthening EPA's regulations aimed at the "prevention of significant deterioration" of air quality in areas where the air quality currently exceeds national standards. Congress has twice defeated a federal land use bill; VFA views the "non-deterioration" amendment as a covert attempt to enact a land use bill. By controlling the quality of air above the ground, this amendment would effectively control land use on the ground. We feel this exceeds the role of Congress in protecting health and general welfare. We note Governor Godwin has indicated Virginia may challenge the constitutionality of these amendments if they become law.

6. Family Farm Inheritance Act

VFA also supports the Family Farm Inheritance Act, Senate bill No. 227, which would encourage the continuation of family farms. The bill would increase the federal inheritance tax exemption on a farm from the present $60,000 to $200,000 provided it has been farmed by a family member for the last five years, and is farmed five years in the future by a family member residing on the farm. Along these same lines, we support H.R. 1793, which would increase the marital deduction to $100,000, and provide for the farm to be valued at its current use as a farm or timber tract, rather than its highest, developed use.

[Mailgram]

MOUNTAIN VIEW, CALIF., *July 25, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Senate Office Building, Washington, D.C.

For the hearing of July 27 to 28 on section 404 of the Clean Water Act, Senate Bill 2710.

The Wright-Breaux Amendment is a disastrous piece of legislation which should be dumped by the Senate. Redefinition of navigable waters of the United States should proceed carefully and then only after due process of full formal hearings before both Houses. Because the entire Clean Water Act including Section 404 Permit Program will be undergoing full review by both Houses next year, wait until then so that the full value of Section 404 Permit Program can be adequately weighed.

JESSIE VOSTI.

WATER RESOURCES CONGRESS,
Washington, D.C., July 27, 1976.

Hon. JENNINGS RANDOLPH,
U.S. Senator,
Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: One of the most serious problems facing our Nation today is the confused mess caused by court and executive agency interpretations of what Congress meant when it passed P.L. 92-500. Of particular concern is the present interpretation of Section 404 of this Law.

The House of Representatives has approved an amendment to help solve this problem. This is contained in the House version of S. 2710 which is now before the Senate Committee on Public Works. Water Resources Congress urges you to support the so-called "Wright Amendment" included in S. 2710 as passed by the House.

Water Resources Congress was not afforded an opportunity to testify before the Subcommittee on Environmental Pollution during its hearings on S. 2710 this week. For this reason, we are enclosing a copy of the brief statement we have asked Chairman Muskie to include in the record of the hearings.

The regulators and the court have overreacted to the apparent intent of Congress with regard to Section 404 and there seems little hope of a satisfactory solution short of an Act of Congress. We hope you will vote to adopt the "Wright Amendment" or similar language which will resolve this serious problem this year. The moratorium declared by the President on implementation of Phase II is about to run out and this is an issue that cannot be put off much longer.

Sincerely yours,

E. MICHAEL CASSADY,
Executive Vice President.

STATEMENT BY THE WATER RESOURCES CONGRESS ON AMENDMENT OF SECTION 404 OF PUBLIC LAW 92-500

The Water Resources Congress is a nationwide association of people and organizations concerned with every aspect of conservation, development, management and beneficial use of the water resources of the United States.

The Water Resources Congress has been deeply concerned about the adverse effect on water resource conservation and development of the court-ordered interpretation of Section 404 of P.L. 92-500, which required the Corps of Engineers to expand its permit program for discharge of dredged and fill material so as to cover virtually every stream, lake and pond in the country. The Water Resources Congress first evidenced its concern officially by adoption of a resolution in February, 1976 urging that the U.S. Congress amend Section 404 so as to limit its application to navigable waters in accordance with the apparent intent of Congress when Section 404 was adopted. A copy of this resolution is attached.

Developments since adoption of that resolution have borne out the worst fears of the Water Resources Congress with regard to the paralyzing effect of the court-ordered interpretation of Section 404 on the efforts of State and local governments to proceed with construction of urgently needed water resource conservation and development projects.

In the absence of the Presidents' order delaying for 60 days implementation of Phase II of the Corps of Engineer's Section 404 regulations scheduled to go into effect on July 1, 1976, important water resource projects under construction by State and local governments would face imminent shutdown under provisions of a Water Pollution Control Act for reasons that have no relationship to water pollution control.

For example, Lake Limestone, a water conservation and water supply project under construction by the Brazos River Authority, a governmental agency of the State of Texas, is required to have a Section 404 permit as of July 1 of this year, even though the project was placed under construction prior to publication of the Corps' regulations on July 25, 1975. The project had previously received all of the approvals, permits and licenses then required under State and Federal law. A Section 404 permit was applied for in October, 1975, and the Corps of Engineers circulated the application to other Federal agencies for their review and comment. In March, 1976 the U. S. Fish and Wildlife Service recommended that the Corps of Engineers deny the requested permit unless the Brazos River Authority purchases 15,800 acres of land (in addition to the 15,000 acres of land required for the dam and lake) and turn the land over to the Texas Parks and Wildlife Department for management as a wildlife preserve. Even if it could be demonstrated to be in the best public interest to take an additional 15,800 acres of farm and ranch land out of private ownership for this purpose, the Brazos River Authority is unable to do so, because it has no source of funds for this purpose (the Authority, although a State governmental agency, receives no tax money, but finances its public works projects through revenue bonds paid from its operating revenues), and it has no legal authority to acquire land for wildlife management.

Lake Limestone is urgently needed to supply water for energy production from lignite deposits in the local area of the lake and to help meet water needs in the lower Brazos Basin and coastal areas downstream where land subsidence from pumping of groundwater is emphasizing the need for additional surface water supplies. But Lake Limestone, although a State project placed under construction in full compliance with all pertinent laws and regulations, is now facing potentially serious delays and possible complete stoppage because of requirements being called for by a Federal agency under the provisions of a Federal Water Pollution Control Act, although such requirements have no bearing on water pollution control. A number of similar projects now under construciton in the United States face similar threats.

Tnis example illustrates how water resource conservation and development efforts by State and local governments can be delayed, hampered and even completely blocked by bureaucratic actions unrelated to water pollution control, but taken under the provisions of Section 404 of the Water Pollution Control Act Amendments of 1972.

Another factor warranting careful consideration is the tremendous expenditure of time, effort and money involved in processing the thousands of applications for Section 404 permits if Phases II and III of the Corps' regulations are placed in effect, which must be done unless the law is amended by Congress. These regulations require a Federal permit for almost anything done by anyone within the high banks of virtually every stream and every lake and pond in the country.

For example, a small city in Texas, needing to build a new sanitary sewer line to serve its citizens, had to apply for a Federal permit under Section 404 for each of five crossings by the sewer line of a small creek winding through the city. Some indication of the amount of paper, time and effort involved in preparation of the application is given by the fact that the public notice alone contained nine pages, including plans and profiles, names of adjacent property owners, and the amount of earth (a total of 284.5 cubic yards for all the crossings) to be excavated at each crossing. Hundreds of copies of this public notice were distributed by the Corps, which invites review and comments by numerous Federal, State and local governmental agencies and by private individuals, companies, organizations and associations of all kinds who might want to comment. The total amount of paper, time and effort involved in accomplishing these reviews and submitting comments, and in reviewing and evaluating the comments, is impossible to determine, but trying to visualize it staggers the imagination, and all of this paper, time and effort is expended simply because a Federal permit must be obtained for a sewer line being built within the city limits of a town every time it crosses a small creek.

It is difficult to imagine the total amount of paper, time and effort that would be involved in carrying out the provisions of Section 404 throughout the entire country as ordered by the Federal Court, but if one can imagine the amount involved in this one case, and then multiply it by several thousand, some idea can be gotten of the tremendous quantity involved.

A reasonable solution to this monstrous problem has been offered by the House of Representatives in its proposed amendment (the so-called "Wright amendment") of Section 404 of P.L. 92–500 as included in the House version of S. 2710, which was passed by the House by a vote of 339 to 5.

The Water Resources Congress feels that the Wright amendment does an excellent job of bringing reason into a chaotic situation, that it eliminates the problems which could result in completely paralyzing State and local government water resource conservation and development efforts, and that it provides for effective water pollution control and other environmental protection as originally intended by the Congress in adopting P.L. 92–500.

The Water Resources Congress respectfully urges the Subcommittee on Environmental Pollution and the full Committee on Public Works to take the action necessary to permit the Wright amendment to be brought to a vote on the Floor of the Senate.

RESOLUTION UNANIMOUSLY ADOPTED BY THE MEMBERS OF THE WATER RESOURCES CONGRESS AT THE ANNUAL MEETING FEBRUARY 23, 1976, URGING THE CONGRESS OF THE UNITED STATES TO AMEND PUBLIC LAW 92–500 SO AS TO LIMIT THE EXTENT OF FEDERAL CONTROL OF WATER RESOURCES DEVELOPMENT EXERCISED UNDER SECTION 404

Whereas, in response to a Federal court order interpreting Congressional intent with regard to Section 404 of the Water Pollution Control Act Amendment of 1972 (P.L. 92–500), the Corps of Engineers' permit program for controlling the discharge of dredged and fill material in navigable waters is being extended and expanded to cover every river, creek and stream in the country with a flow normally in excess of five cubic feet per second and every lake and pond with a surface area of five acres or more, and wetlands adjoining such streams, lakes and ponds; and

Whereas this will require that State and local governmental entities as well as private citizens and other non-governmental entities must obtain a Federal government permit from the Corps of Engineers before building any dam, levee, dike, channel improvement or other water resource conservation or development project involving the placement of fill materials in such rivers, creeks, streams, lakes, ponds or wetlands; and

Whereas the obtaining of such permits will involve inordinate additional effort and expense not only by the project builder and the Corps of Engineers but also by other Federal, State and local governmental agencies with whom the Corps of Engineers must coordinate its review and processing of permit applications; and

Whereas the Corps of Engineers estimates that the time required for processing permit applications will vary from a minimum of three or four months to a maximum of a year or more; and

Whereas extending and expanding the Corps of Engineers' permit program under Section 404 of Public Law 92-500 as ordered will unnecessarily and substantially delay, hamper and increase the cost of urgently needed water resource projects, and in some cases perhaps completely block such projects, many of which are undertaken by mandate of State and Federal laws; now, therefore be it

Resolved, That the Water Resources Congress respectfully urges the Congress of the United States to clarify the definitions of "waters of the United States" and "navigable waters" in P.L. 92-500 so as to make unmistakably clear the intent of Congress that Federal control of construction of water resource projects through control of the discharge of dredged or fill material be limited to waters which are, in fact, navigable and used as a means to transport interstate commerce.

Unanimously adopted by the Water Resources Congress this 23d day of February 1976.

ATLANTA, GA., *July 24, 1976.*

Re Water Pollution Control Act Amendments (H.R. 9560)

Hon. JENNINGS RANDOLPH,
Chairman, Senate Public Works Committee, U.S. Senate,
Washington, D.C.

DEAR SENATOR RANDOLPH: This is to express my opposition to the Wright Amendment to the Water Pollution Control Act which would have the effect of reducing protected wetlands. If possible please make this letter a part of the official hearing on this subject.

Respectfully,

GRANT H. WEAVER.

[Mailgram]

CORTE MADERA, CALIF., *July 25, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Committee on Public Works, 5121 Dirksen Office Building, Washington, D.C.

I strongly urge you to protect the country's wetlands by supporting the Section 404 Program, allow no restrictions, amendments, or cutbacks. Section 17 of H.R. 9560 and like legislation now before the Public Works Committee dooms wetlands by removing them from the protection of Section 404 permit regulations. The consequences to food chains for fish are unthinkable. Please make this message part of the record for this week's hearings.

LARRY WEINGATH,
Councilman,

CORTE MADERA, CALIF., *July 21, 1976.*

Senator JENNINGS RANDOLPH,
Chairman, Public Works Committee, 4202 Dirksen Office Building, Washington, D.C.

DEAR SIR: I have just learned of the July 27, 28 hearings on amendments to the '72 Water Pollution Control Act, and I am writing to urge you to fight any such attempt to destroy this country's wetlands—rather, the very little that is left.

The Wright-Breaux Amendment was railroaded through after a dictatorial decision to limit debate to 20 minutes. I have this information from Congressman Pete McCloskey.

A note from the Wildlife Management Institute now states that the roster of witnesses for the July 28 hearing was handpicked by the committee and is heavily freighted with friends of dredgers and developers. Only two organizations will appear to oppose the Wright-Breaux amendment.

I wish to state my disgust and opposition to this procedure. You and your committee should fight to save wetlands for the sake of a valuable food chain which insures fish for us all. I ask you to help.

Respectfully,

SHIRLEY WEST.

P.S. Please make this letter a part of the hearing record.

WEST CONTRA COSTA CONSERVATION LEAGUE,
Richmond, Calif., July 15, 1976.

DEAR SENATOR: The West Contra Costa Conservation League urges you to oppose the Wright-Breaux amendment to the 1972 Water Pollution Control Act, or any similar type language amending the bill. The Corps of Engineers' permit program is the only equitable way in the public interest we have had to save San Francisco Bay from filling.

We urge that this request from us be made part of the hearing record.

Sincerely,

JEAN B. SIRI, *President.*

STATEMENT OF THE WILDERNESS SOCIETY BY MS. BUBBLES PIERCE

Mr. Chairman and Members of the Committee, a few hundred years ago Americans took clean water for granted. Decade after decade they added sewage, silt, industrial wastes and poisons to this natural resource. Finally, they realized that the devastating destruction of this life-sustaining natural resource had to be halted and a process of reconstruction and protection implemented. On October 18, 1972, Congress committed the United States to a long range program to reclaim the purity of our waters. By 1985 our waters are required to be clear and drinkable.

Wetlands are a vital part of the land-water forces that keep alive our natural bodies of water. Congress realized the importance of the wetlands in relationship to clean water by providing for a federal permit system (404), for dredge and fill material in the nation's waters and adjacent wetlands through the Water Pollution Control Act Amendments of 1972. Americans are still dredging, filling and developing 200,000 acres of these wetlands each year. Since 1776 our nation has lost 51,000,000 acres of its original 127,000,000 acres of wetlands. The destruction and loss of these wetlands means a loss of wildlife habitat, loss of aquatic life, loss of natural recreational areas, loss of sea foods, loss of cleansing areas for rivers and bays, loss of flood plains, and perhaps the most important, loss of life-sustaining waters.

The 404 Program is a permit program to stop dredge and fill material from polluting our waters and subaqueous lands.

There are concerns from some that the 404 Program infringes upon their rights or hampers operations in the national interest. We can agree with those that bought wetlands several years ago as an investment and feel they should be reimbursed for their investment if they cannot sell or develop the land because the Corps will not grant them a permit. This problem can be solved by adequate legislation.

As to the concern about infringement upon states' rights, very few of our states have good permit programs for disposal of dredge and fill materials. Even those states that have implemented a permit system find their permit agency knuckling under to extreme pressures from industry and developers. The implementation of a federal permit system (404), retains objectivity in granting the permits and a uniformity of qualifications needed for obtaining a permit. A federal permit program could also implement general permit specifications that would remove the red tape of securing a permit for projects that would not damage the water or land environment.

It appears the point has been reached in the national interest of our nation's water resources to place all remaining acres of wetlands under federal protection. Japan in the past few years declared 50 feet on each side of their river banks federal lands. They planted marsh grasses on these 50-foot strips of federal lands. The marsh grasses are helping to clean up the rivers and river bottoms. Wetlands serve as a filter system and play an important role in the necessary struggle to combat water pollution.

This function of wetlands and many other functions, such as providing the breeding and feeding grounds for shellfish, finfish and other marine organisms, and also for migratory and resident birds and animals; serving to sponge up flooding waters and to protect water supply, project some of the cogent reasons for preserving wetlands.

In the last few years Congress has recognized the importance and also the vulnerability and necessity for protection of wetlands. The 404 Program provides tools to implement this protection.

The Wilderness Society, therefore, sincerely hopes Congress will allow the program a chance to work and protect the natural resources of our nation's waters and wetlands. Thank you.

WILDLIFE MANAGEMENT INSTITUTE,
Washington, D.C., July 26, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Senate Committee on Public Works, Senate Office Building, Washington, D.C.

DEAR SENATOR RANDOLPH: We appreciate the time you provided us in your busy schedule to discuss the dredge and fill permit system and proposals to modify the authorized program.

The enclosed statement and attachments are offered in response to your invitation to provide helpful suggestions on the confusing Wright Amendment. Kindly include this statement as part of the hearing record.

Sincerely yours,

LAURENCE R. JAHN, *Vice President.*

Enclosures.

STATEMENT OF LAURENCE R. JAHN, FOR THE SENATE COMMITTEE ON PUBLIC WORKS ON OVERSIGHT HEARINGS ON SECTION 404

Mr. Chairman: I am Laurence R. Jahn, vice president of the Wildlife Management Institute, one of the oldest conservation organizations concerned with the improved management and restoration of America's natural resources. We are pleased to have this opportunity to provide comments on the Corps of Engineers' dredge and fill permit program.

Our principal concern with the complex Wright Amendment is with the language that would strip protection from much of the nation's valuable aquatic resources. Objections to that amendment are shared by many other scientific and conservation organizations. Application of the permit system should cover a larger geographic area than called for in the Wright Amendment.

The Wright Amendment ignores many of the readily demonstrable economic, social, and cultural values of wetlands. It is unnecessary, since its major objectives have been anticipated by the Corps of Engineers in its guidelines for "Permits for Activities in Navigable or Oceanic Waters" as published in the Federal Register of 25 July 1975. Also, it threatens to undermine the long-standing 1899 Refuse Act which was developed three quarters of a century ago to help protect the nation's important aquatic ecosystems. By restricting the legal definition of navigable waters, the Wright Amendment would remove federal protection from millions of acres of nontidal wetlands essential to agriculture, industry, commercial and sport fisheries, municipalities, and wildlife.

Wetlands in their natural and seminatural states have numerous functions of vital importance to many segments of the national economy. One of these is their still little appreciated value in stabilizing runoff from the land and minimizing floods. By doing so they reduce the need for investments of taxpayers' dollars in dams, levees, and other water-control structures and sometimes staggering public expenditures for flood disaster relief.

Riparian marshes and swamps have amazing water-retention values. It has been demonstrated by scientific study that ten acres of wetlands is equal in storage capacity to a man-made flood control reservoir with a capacity of 1.5 million gallons. In addition to storing flood waters that might otherwise threaten downstream properties and lives, wetlands play a major role in the productivity of coastal fisheries by maintaining the proper mix of salt and fresh water in the estuaries into which they feed. Serious losses of oysters and other shellfish occurred in Chesapeake Bay after Tropical Storm Agnes when the influx of an overabundance of fresh water upset the salinity balance of the bay.

Wetlands have important values as filters, silt traps, and purification agents for streams that flow through them. Many of these streams feed reservoirs that are vital to agriculture, industry, and human habitation. A heavily contaminated tributary of Alcovy Creek in Georgia was found by the Federal Water Pollution Control Administration to have been cleansed of all dangerous pollutants after flowing through only three miles of swamp. After traversing another seven miles of swamp, the river's waters were classified as "excellent" in quality.

Silt is among the most serious problems of irrigation and water supply agencies. The tendency of water-borne soil particles to settle when they reach static bodies of water, such as lakes and reservoirs, creates sand bars and mudflats that reduce the storage capacities of the downstream impoundments. Unless costly dredging is used to remove these silt deposits, all storage capacity may eventually be lost. Upstream swamps and marshes, by removing suspended particles from inflowing streams, greatly increase the longevity of the reservoirs into which they feed waters.

These and other important public values of wetlands are documented in Chapter 2 of *Inland Wetlands of the United States* by Richard H. Goodwin and William A. Niering (National Park Service, Natural History Theme Studies No. 2, 1975) and in *Our Cape Cod Salt Marshes* by Dorothy Sterling (Information Bulletin No. 6, The Association for the Preservation of Cape Cod, Orelans, Mass., 1976). Pertinent exerpts from these documents are appended to this statement. All of these natural values of our inland wetlands would be jeopardized by enactment of the Wright Amendment.

Action on the Wright Amendment in the House appears to have been motivated by fears of agricultural and forestry interests that farmers and foresters would be required to obtain federal permits before carrying out customary and usual practices in any way affecting wetlands on or adjacent to their properties. Yet the guidelines for "Permits for Activities in Navigable Waters or Oceanic Waters," as published by the Corps of Engineers in the Federal Register of 25 July 1975, clearly exempts such farming and sivicultural practices.

Paragraph (d)(2) exempts drainage and irrigation canals from the definition of navigable waters. Paragraph (d)(2)(ii) exempts stock watering ponds and settling basins, other than those impounding navigable waters, from the permit process. Paragraph (d)(4) states that "dredged materials . . . would not include materials produced in normal farming silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting."

These and other exclusions to agriculture and forestry in the guidelines appear to give adequate protection to farmers and foresters against governmental interference under the 404 program. For this reason the Institute feels that the Wright Amendment is redundant and unnecessary.

WMI endorses the protection to farmers and foresters written into the permit guidelines issued by the Corps. We would have no objections to legislation hardening those administrative statements into law. Likewise, we support the concept of using general permits in a carefully designed manner, especially to cover recognized land management practices. Our objections to the Wright Amendment are not to the provisions for protection to certain agricultural and silvicultural activities, but to the disastrous effects it would have on the maintenance of our priceless wetlands and their associated public values.

If new legislation is needed, the Cleveland-Harsha Amendment or the Hart Amendment (S. 3663) to Section 404 of the Water Pollution Control Act is a reasonable approach. Either would accomplish the primary objectives of the Wright Amendment without destroying the firm structure of federal law that has been built in the last 75 years to protect essential aquatic areas.

We feel that some form of the present permit system regulating dredge and fill materials must be retained. We would support delegation of authority to issue permits to those states clearly demonstrating that they have the authority and capabilities to handle such responsibilities. To attain uniformity of performance among the states, transfer of authority for issuing permits should be made under guidelines promulgated by the Environmental Protection Agency, the Corps of Engineers, or both.

We respectfully urge this committee to reject the Wright Amendment and exercise one of the several options open to it that will assure the maintenance of our irreplaceable aquatic areas.

Inland Wetlands of the United States: Evaluated as Potential Registered Natural Landmarks

(By Richard H. Goodwin and William A. Niering, Connecticut College, New London, Conn.)

CHAPTER 1.—INTRODUCTION

The primary goal of this survey is to classify and inventory the significant natural inland wetlands of the United States, exclusive of Hawaii and Alaska, that might be considered especially suitable for registry as Natural Landmarks by the National Park Service. The report is divided into four sections. The first briefly outlines the various values of these wetlands; the second deals with their classification; the third consists of a brief review of the many encroachments on these habitats that are currently taking place across the country; and the fourth presents a state-by-state inventory.

The classification developed for use in this report generally follows the one currently in use by the U.S. Fish and Wildlife Service, but the descriptions of the various categories have been somewhat amplified to include habitats of relatively little importance to waterfowl. Some consideration has been given in the discussion to other schemes which place greater emphasis upon species composition of the dominant plants. It is clear that any program directed toward recognizing different habitat types must take into account the diversity that reflects the many environmental variables encountered over a wide geographic range. By selecting representative wetlands from each state that fall into the various categories recognized here, a good sampling of the diversity of wetland types should be achieved.

One of the significant by-products of this study has been the broad overview of the manifold encroachments on the wetlands that has emerged. Environmental quality makes it imperative that as much as possible of these valuable habitats be preserved. The U.S. Fish and Wildlife Service has been making a notable contribution in preserving and rehabilitating wetland habitat of particular value to waterfowl. Hopefully, the Natural Landmark Program of the National Park Service will expedite preservation through action in the private sector.

The inventory itself is arranged alphabetically by states. A general description of the wetland types, nature of encroachments, sources of data, and recommendations is followed by descriptions of specific areas on which we have been able to obtain information. Most of the data on these areas are based upon reports sent in by a large number of respondents who have been identified in each case. We would like to thank all these persons for their generous cooperation. The above information has been supplemented by published reports and some site visits by the authors. However, the magnitude of the project has precluded exhaustive literature search or thorough coverage where responses have been inadequate.

The authors would like to thank the personnel of the National Park Service in the Division of Special Planning Studies for providing the USGS topographic maps used in this report and Ellen Nelson Raynolds for her painstaking work on the manuscript.

CHAPTER 2.—THE VALUE OF INLAND WETLANDS

The wetlands of the United States represent an extremely limited resource, comprising about 3.5% of the entire country, excluding Alaska. Although among the most productive ecosystems in the world, they have been subjected to widespread destruction and abuse. As a result of dredging, draining, filling, and pollution they have been reduced to 70 million acres, which is slightly more than half of the original estimated 127 million acres. These figures include all wetland types, inland and coastal.

Although the ecological role of the coastal wetlands in supporting the shellfish and finfish productivity of our estuarine waters is well documented, recent studies have also provided data on the significant ecological role of our fresh-water wetlands. Two current studies are of special relevance. Wharton's analysis of the ecological values of southern river swamps keynotes four major values: water quality, water quantity, productivity, and potential educational use (Wharton 1970). McCormick (1970) and Grant and Patrick (1970) have recently completed a study of the polluted Tinicum wetlands in the Philadelphia region which documents their high productivity and role in pollution filtration.

Hydrologic Role

Wetlands are of major importance in the nation's hydrologic regime. Because of their water-holding capacity, they act as storage basins, lowering flood crests,

minimizing erosion, and serving to reduce the destructiveness of severe floods. In densely populated areas this is especially important, since urbanization intensifies the rate of runoff. Buildings, concrete, and asphalt waterproof the land surface and tend to concentrate large volumes of precipitation. Cities lack adequate soak-in areas and the runoff is usually rapid and in excessive amounts. Wetlands, and especially flood plains, act as catchment basins and tend to slow the speed of flood waters, thus minimizing flood damage. In 1955, when severe floods hit eastern Pennsylvania, many bridges were washed out along the stream courses. However, two bridges of the type destroyed elsewhere were still intact below the Cranberry Bog, a Natural Area preserved by The Nature Conservancy and recommended for landmark status. That swamps provide natural storage for flood waters has been demonstrated on the Alcovy River in Georgia (Wharton 1970), also recommended for landmark status.

It has been estimated that a 6-inch rise in water over a 10-acre wetland places more than 1.5 million gallons of water in storage with no harm to the surrounding biota (Niering 1966). By slowing the velocity of flow, wetlands minimize erosive processes and simultaneously act as siltation basins. Wetland filling is often a combination of organic, plant-derived, and inorganic, stream-carried sediments.

Wetlands have been shown to play a significant role in ground-water recharge. In the Ipswich River basin of Massachusetts the USDI (1962) found that marshes and swamps functioned not only as water storage and discharge areas but also occasionally as ground-water recharge areas. In North Carolina along the Yellow River, Kilpatrick (1964) found an alluvial aquifer below the flood plain that was hydraulically contiguous with the surface waters of the stream.

Productivity

Fresh-water marshes and swamps are among the most productive biological systems. Eugene Odum (1959) estimates the gross productivity of southern river swamps such as the Alcovy and Altamaha bottomlands at 20,000 kcal/m² per year, which compares favorably with a field of sugarcane (27,010),[1] the most productive, intensively managed agro-ecosystem. Furthermore, wetland productivity is estimated to be double the 20,000 figure on the most favorable sites. Hardwood production reaches about 12 metric tons/ha (2.4 acres) per year. The estimated timber productivity on the 2300-acre Alcovy River system is estimated to be $1,578,720 per year ($686 per acre per year) based on a 100-year period and at present market value. Fish productivity averages 75 pounds per acre but may reach 1300 pounds per acre in the backwaters and sloughs, according to the Georgia Game and Fish Commission. Wharton (1970) estimates the total productivity value of the Alcovy at $546,940 per year or $3,648,720 based on a 100-year period. These monetary estimates do not include the value of primary production in terms of food for wildlife or in terms of the animals, including furbearers, that it supports.

Wetlands have long been associated with the production of waterfowl (Alexander et al. 1953; Linduska 1964). They are recognized as the Nation's "duck factories." The pothole country, for example, which represents only 10% of our wetlands, produces over 50% of our ducks. Every year 300,000 ducklings fly off the western marshes along the Pacific Flyway. The 14 southern states add another 700,000, and the eastern coastal marshes add 200,000 more during the best years. Some wetlands are more important as the actual breeding areas. Others are essential as wintering grounds and as feeding and resting areas scattered along the major flyways (Errington 1966; Niering 1966).

Studies of the primary producers in the Tinicum Marshes by McCormick (1970) provide insight into higher plant productivity. Among the eight vegetation types represented, common reed grass, wild rice, cattail, and mixed aquatic types were most important. They produced a standing crop of 4.2, 6.9, 3.9, and 4.0 tons/acre, respectively.

In general, wetlands exhibit a distinctive flora and fauna adapted to hydric conditions or to periodic flooding. Some of the plant species are of special interest for their unique features. These include the insectivorous plants, orchids, and ericads of the bogs and species typical of the vernal pools that change morphologically with gradual desiccation of the site.

Oxygen Production and Nutrient Recycling

Grant and Patrick (1970) found that the 512 acres of wetland in the Tinicum Marshes produce a net increase of 20 tons of oxygen per day. This is the product of photosynthesis.

[1] Day net production plus night respiration.

Modern man has drastically modified the nitrogen cycle. The annual natural turnover of nitrogen compounds in the U.S. has been calculated to be about 7 or 8 million tons (Commoner 1970). Currently our agricultural fertilizers add another estimated 7 million tons, and nitrogen compounds produced as by-products from our power plants and automobiles, another 2 to 3 million tons. More than doubling the nitrogen input into the biosphere has resulted in a serious deterioration of environmental quality in various parts of the country. Denitrifying bacteria have the ability to take the deleterious nitrogen oxides that are accumulating and convert them back into atmospheric nitrogen of which most of the atmosphere is composed. Most wetlands support vast numbers of these micro-organisms and thus serve to reduce the load of dissolved nitrogen washed into them.

Another role of aquatic ecosystems is the recycling of organic sulfur-containing compounds by action of sulfate-reducing bacteria. As Deevey (1970) puts it: "What follows, if $R.NH_2.SH$ is to remain a renewable resource, is that water, mud, air, and land are closely linked by oxidation-reduction cycles in which reduction is performed entirely by organisms."

Pollution Filtration

One of the most significant roles of wetlands is their ability to remove pollutants. Preliminary studies in the Tinicum Marshes indicate that this area receives sewage from three treatment plants and that a significant reduction in absolute amounts of pollution occurs by the time the water has passed through the 512 acres of marsh. Grant and Patrick (1970) succinctly summarize this vital role as follows:

"It is significant that reductions in BOD, $P\text{-}PO_4$, $N\text{-}NH_3$, and $N\text{-}NO_3$, did occur in the excursion of the river water over the marshland in the time interval of 2 to 5 hours. This reduction occurred in 57% of the BOD measurements, 57% of the $P\text{-}PO_4$ analyses, 66% of the $N\text{-}NH_3$, and 63% of the $N\text{-}NO_3$ analyses. Oxygen increases occurred in 73% of the analyses. It is difficult to determine from the information at hand why the decreases in pollution load were not always consistent but are probably due to irregular pattern of flow and the variability of pollution load. If we take the approximate average value for each of these characteristics this would mean an approximate reduction of $P.PO_4$ of 190 mg/ft^3 of water per day; BOD of 310 mg/ft^3 per day; $N\text{-}NH_3$ of 176 mg/ft^3 per day; $N\text{-}NO_3$ of 3.2 mg/ft^3 per day and an increase of oxygen of 512 mg/ft^3 per day. Since the wet area of the marsh is about 512 acres, this would amount to a reduction per day of approximately 7.7 tons of BOD, 4.9 tons $P\text{-}PO_4$, 4.3 tons $N\text{-}NH_3$, 138 lb. $N\text{-}NO_3$, and an increase of 20 tons of oxygen. From these preliminary results it is evident that the marshlands play an important role in reducing the nutrient load in water and in increasing the oxygen content."

In Georgia, water quality was studied along the Flint and Alcovy rivers to assess the value of river bottomland swamps in pollution reduction. In the Flint River system, the Georgia Water Quality Control Board reports a high degree of recovery by a very organically polluted stream within a distance of 6 miles, where there were extensive swamps. It was also observed that the degree of recovery was directly correlated with the presence of the adjacent swamps. Along Mountain Creek, a tributary of the Alcovy River, the Federal Water Pollution Control Administration found extreme pollution due to human sewage and chicken offal (Wharton 1970). However, after passing through 2.75 miles of swamp forest along the Alcovy, the river water was designated as clean; and water quality was excellent after traversing an additional 7 miles of swamp. Data also suggest that coliform counts, dissolved oxygen, and biological oxygen determination (BOD) all returned to more favorable levels downstream from the swampy areas. In another study of oil wastes on the Gothard's Branch in Douglas County, Georgia, Turner and Ahern (1970:18) found that the largest amount of the degradation of the pollutant occurs along the swampy portion of the stream.

The role of swamps in sediment removal has also been documented. Wharton (1970) estimates that the value of the Alcovy River Swamp as a sediment accretor exceeds $3000 annually. This function would be destroyed by channelization, a potential threat to such wetlands. It has been found that water velocity is doubled by channelization, while the silt load is tripled.

In conclusion, Wharton (1970) estimates the value of the 2300-acre Alcovy River Swamp ecosytem from the standpoint of water quality at $1,000,000 annually.

Education and Recreation

Wetlands are outdoor educational exhibits and scientific laboratories. They serve as the resource base for scientific research and also as museums for teaching the dynamics and ecological role of these ecosystems. At the Connecticut Arbo-

retum in New London, the permanently preserved wetlands have been studied by Connecticut College students. A red maple swamp, actually a bog, with its underlying 20 ft of peat, presented a challenging problem to an undergraduate student as she unravelled the 13,000 years of post-glacial history revealed by the pollen preserved in the peat. At the Thames Science Center, closely affiliated with the Connecticut Arboretum, thousands of school children annually are given first-hand field experience and are being taught the value of wetlands. The Arboretum Guided Tour (Emery 1967), used by the teachers, makes this point about the wetland along the route: "The swamp below this dam is roughly an acre in size. If flooded to a depth of one foot it would hold 330,000 gallons of water. Thus whenever a swamp is filled or drained, another large quantity of water is lost from the underground water supply and made to run off more quickly to aggravate flooding problems downstream." In these ecological settings one can also emphasize the basic ecological principles operative in natural ecosystems—energy flow, recycling, diversity, and limited carrying capacity. These concepts can also be directly related to man and the environmental problems created by failing to recognize their applicability in human ecology.

Wetlands also provide many recreational outlets, such as fishing, hunting, bird-watching, and hiking. Twenty million Americans go fishing, two million hunt waterfowl. Thousands hunt the wetlands with binoculars and cameras, where an unparalleled diversity of waterfowl and spectacular marsh birds gives pleasure and inspiration. On Staten Island a unique fenway system has been proposed for incorporating the wetlands as part of the open-space pattern. This represents a sound ecological use of resources and the recreation potential is very great. Such a mosaic of open space should be incorporated as an essential part of any community development plan, as it serves an important social function and greatly enhances the quality of the environment (Hoffman 1963; Thomson, 1970; USDI 1962).

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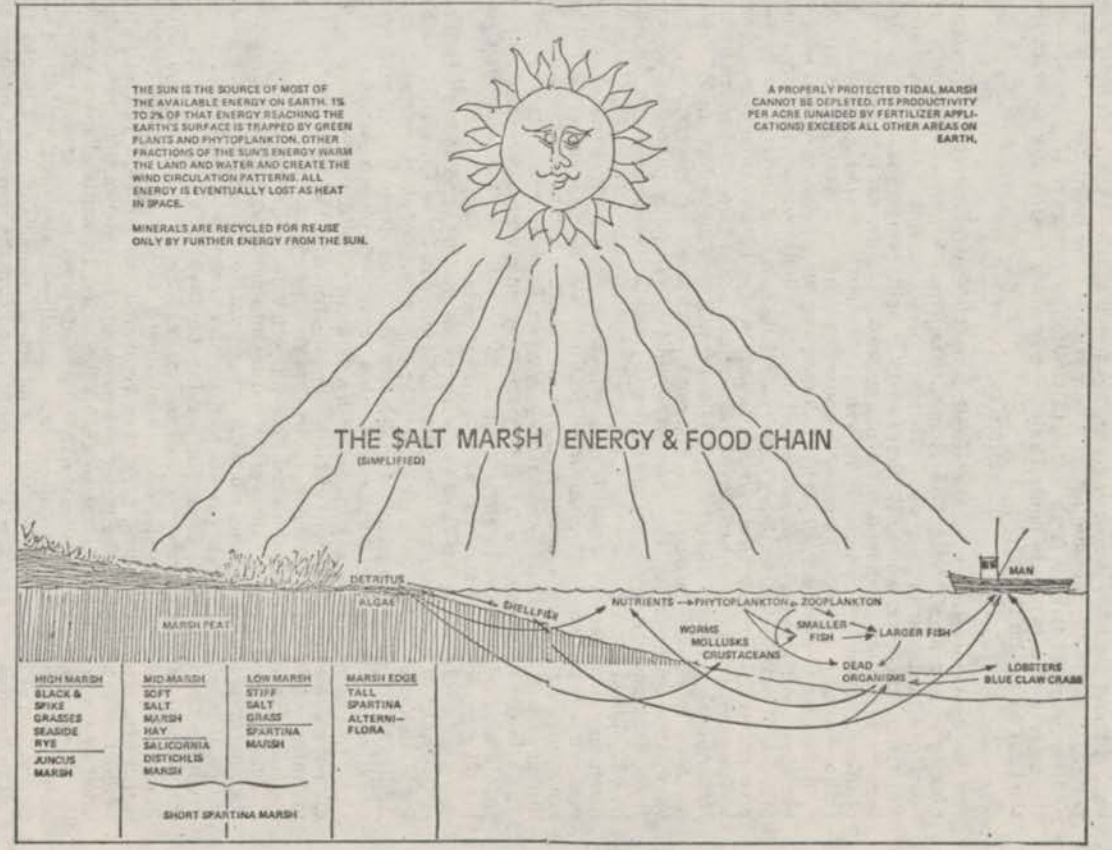
THE SUN IS THE SOURCE OF MOST OF THE AVAILABLE ENERGY ON EARTH. 1% TO 2% OF THAT ENERGY REACHING THE EARTH'S SURFACE IS TRAPPED BY GREEN PLANTS AND PHYTOPLANKTON. OTHER FRACTIONS OF THE SUN'S ENERGY WARM THE LAND AND WATER AND CREATE THE WIND CIRCULATION PATTERNS. ALL ENERGY IS EVENTUALLY LOST AS HEAT IN SPACE.
MINERALS ARE RECYCLED FOR RE-USE ONLY BY FURTHER ENERGY FROM THE SUN.
A PROPERLY PROTECTED TIDAL MARSH CANNOT BE DEPLETED. ITS PRODUCTIVITY PER ACRE (UNAIDED BY FERTILIZER APPLICATIONS) EXCEEDS ALL OTHER AREAS ON EARTH.
THE $ALT MAR$H ENERGY & FOOD CHAIN
(SIMPLIFIED)
DETRITUS
ALGAE
SHELLFISH
MARSH PEAT
NUTRIENTS → PHYTOPLANKTON → ZOOPLANKTON
WORMS
MOLLUSKS
CRUSTACEANS
SMALLER FISH
LARGER FISH
DEAD ORGANISMS
MAN
LOBSTERS
BLUE CLAW CRABS
HIGH MARSH
BLACK & SPIKE GRASSES
SEASIDE RYE
JUNCUS MARSH
MID-MARSH
SOFT SALT MARSH HAY
SALICORNIA DISTICHLIS MARSH
LOW MARSH
STIFF SALT GRASS
SPARTINA MARSH
SHORT SPARTINA MARSH
MARSH EDGE
TALL SPARTINA ALTERNIFLORA

As more and more people pump more and more water, volume and pressure of the water underground drops and there is increasing danger of salt water intrusion. This has already happened in Provincetown and in scattered wells along the coast. A new study[1] by Dr. Norton Nickerson, Tufts University biologist and Dennis summer resident, has found that the thick layers of semi-pervious peat in the marshes act as a barrier to the landward flow of salt water and the seaward flow of fresh water. Alteration of any part of a marsh—even the digging of a mosquito control ditch—may allow fresh water to drain from the land on an ebb tide.

SOME NEW MATH

"The best investment in the world is waterfront property—they are not making it any more," said Will Rogers. The cowboy philosopher's wry comment can be taken in two ways. To some people, a salt marsh is a piece of waterfront property which, if "improved," would bring immediate economic benefits to realtors, builders, and building trades people. An increasing number of others see a marsh in terms of its value to society as a whole, now and in the future—a value which will increase because "they are not making it any more."

To resolve the conflict between these opposing views, ecologists and land-use planners have attempted to estimate the actual dollar value of a salt marsh. What is it worth, not in today's real estate market, but in terms of its total productivity? One way to arrive at a figure would be to estimate the money which flows into a region because of its marshlands. On Cape Cod where tourism is the major industry, tourist spending amounted to $164 million in 1974. How much of this comes from sports fishermen, duck hunters, birders, vacationers who gather shellfish and city-dwellers seeking a refreshing change of scenery? If one took an arbitrary figure of one-fourth, the marsh-dependent income would be $41 million a year. Since the Cape has 13,184 acres of salt marsh, this would mean an annual income of $3,125 an acre. Assuming an interest rate of five percent, an acre of Cape salt marsh would be worth $62,500.[2] To this one could add the value of the Cape's commercial fish and shellfish exports as they cross the bridge as well as the money spent by commercial fishermen and their families. The role of salt marshes in flood control, water supply protection and so forth should also be included in these computations. And how does one put a price tag on green meadows and blue water which reflects the sky?

No one has broken down Cape Cod's income figures to get an accurate estimate of the value of its marshes, but scientists at Louisiana State University's Center for Wetlands Resources have computed the dollar value of southern marshlands.[3] Adding the income from commercial fisheries which are dependent on marshes to an estimate of the potential value of marshes for oyster aquaculture and for waste water treatment, they have come up with a figure of $80,000 an acre. Because this did not include other functions of marshes—as barriers against floods, habitats for migratory birds and so forth—the scientists then proposed a new and ingenious approach for determining the total "life-support value" of a marsh.

This approach translates the work of nature into monetary terms by comparing the energy produced in a marsh with other forms of energy consumed by the nation. The scientists' first step was to determine the ratio of the Gross National Product—the value of all goods and services produced in the U.S. annually—to the amount of energy reported in the National Energy Consumption Index. Finding that 10,000 kilocalories were consumed to produce one 1973 dollar's worth of goods and services, they then compared this with the rate of energy production in a marsh. Calorimeter measurements have shown that one pound of dried marsh grass is equivalent to 1850 kilocalories. In southern marshes where the annual *Spartina* crop averages 22,000 pounds per acre, an acre of marshland would produce 40,700,000 kilocalories annually—the equivalent of $4,070. Capitalized at five per cent, the value of an acre of marshland would be $81,400.

The *Spartina* crop on Cape Cod marshes is undoubtedly somewhat smaller than the crops in Louisiana and Georgia where the grasses grow year-round. However, the surpluses exported from Cape marshes which contribute directly to the support of one of the world's largest populations of fish and shellfish may make up somewhat in importance for the difference in unit output.

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[1] Nickerson, Norton H., "Salinities of Ambient and Interstitial Water of Some Cape Cod Salt Marshes," 1975 (in press).

[2] Value = $3,125 ÷ .05.

[3] Gosselink, James G., Eugene P. Odum, and R. M. Pope, "The Value of the Tidal Marsh," Louisiana State University, 1974.

THE WILDLIFE SOCIETY,
SOUTH DAKOTA CHAPTER,
Pierre, S. Dak., July 19, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Committee on Public Works,
Senate Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: The South Dakota Chapter of the Wildlife Society requests that this letter be made part of the hearing record regarding the Wright-Breaux amendment to Section 404 of the Federal Water Pollution Control Act.

As an organization of nearly 100 professional people dedicated to the wise management and conservation of wildlife and its natural environment, we oppose the Wright-Breaux amendment because it would not provide for adequate control of dredging and filling operations on our nation's dwindling number of natural wetlands. Protection of natural wetlands is necessary not only to provide habitat for wildlife but also to serve as a natural water pollution control and silt retention system, a flood control or water retention system, and a source of ground water recharge.

Natural wetlands cannot be replaced and when their delicate ecological balance is upset by large-scale unnatural activities, such as dredge and fill operations, benefits of natural wetlands are lost forever. Section 404 currently provides the best regulations established to date to ensure conservation of these natural wetlands.

Sincerely,

RON FOWLER, *President.*

WISCONSIN INLAND WATERWAYS ASSOCIATION,
Madison, Wis., July 22, 1976.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee,
4202 Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: The Wisconsin Inland Waterways Association urges you not to make imprudent changes in the definition of "navigable waters" found in Section 404 of the Federal Water Pollution Control Act, as proposed by the Wright-Breaux Amendment. The implications of a more restrictive definition for the remaining wetlands and related watersheds of Wisconsin need the most careful evaluation. Moreover, states and local governments throughout the nation which will forfeit water quality if the definition is relaxed deserve to be heard.

In a letter dated July 7, 1975 to Lt. General William C. Gribble, Jr. of the Army Corps of Engineers, Governor Patrick Lucey stated:

"Wisconsin has a long tradition of protecting its waters from actions detrimental to the public welfare. For this reason I favor regulation of dredging and filling in a manner which will provide for the maximum protection of the public's interest."

He concludes:

"In summary, I would support an expanded definition of navigable waters as proposed in Corps alternative 1, if coupled with the administrative delegation of responsibility outlined above. This approach would extend protective dredge-and-fill regulations, while directly dealing with the problem of overlapping and concurrent Federal-State jurisdiction on public waters." (letter enclosed)

Our governor's comment is one of over 4,500 the Corps considered in formulating their July 25, 1975 regulation guidelines for the administration of Section 404. Just as noteworthy, the definition of navigable waters therein has evolved over nearly a century of legislative and court action. To abruptly fashion an alternative definition is to be unaccountable to a prolonged public trust. It is to put the interests of a few above the interests of the many.

Serious review, open to the public, may reveal that procedural changes in Section 404 are appropriate. These might include:

(1) clarification of the Corps' exemption (from permits) of normal farming practices,

(2) the alleviation of permit volume through a "general permits" provision, and

(3) greater support for state protection efforts to minimize state-federal duplication, while extending cooperation.

Redefinition at the federal level, however, may actually withdraw needed support for (or even undermine) state efforts at protecting public waters and wetlands. Six states currently have sound wetland legislation, and momentum is gathering in Wisconsin to do likewise. This momentum will be lost if leadership in Washington turns its back on wetlands by passing the Wright-Breaux Amendment. We urge extended study of the redefinition issue, the inclusion of public opinion on the matter, and farsightedness by your committee as to the protection of remaining wetlands.

Sincerely,

CHARLES C. GEISLER,
WIWA Representative/Madison.

STATE OF WISCONSIN,
OFFICE OF THE GOVERNOR,
Madison, Wis., July 7, 1975.

Re proposed alternative regulations concerning "Navigable Waters Procedures and Guidelines for Dredged or Fill Material," as printed in the Federal Register of May 26, 1975.

Lt. Gen. WILLIAM C. GRIBBLE, Jr.,
Chief of Engineers,
Washington, D.C.

DEAR GENERAL GRIBBLE: Wisconsin has a long tradition of protecting its waters from actions detrimental to the public welfare. For this reason I favor regulation of dredging and filling in a manner which will provide for the maximum protection of the public's interest.

Much of the area which would now become subject to Army Corps of Engineers' regulation under an expanded definition of "waters of the United States" has been effectively managed for many years under state programs. For waters found to be "navigable" under Wisconsin law, aggressive application of state water regulatory laws and mandatory adoption of local flood plain and shoreland zoning ordinances provide a large measure of protection from filling and dredging. The need for additional wetland protection is recognized in a bill currently under consideration by the Wisconsin Legislature.

Programs administered at the state and local level have advantages not generally found in those which are federally administered. Opportunities for public education and involvement are far greater and misunderstanding can be eliminated when administrators are readily available to answer questions and listen to suggestions. Many potential conflicts can be avoided by working with individuals to resolve possible problems before making final regulatory decisions. Furthermore, state agency personnel have the advantage of being able to more readily evaluate the implications of proposed dredge and fill activities, particularly because of their knowledge of the characteristics of local waterways.

None of the four administrative alternatives proposed by the Corps address the problems of duplication of effort between the corps and state agencies, with associated public confusion and unnecessary delays. Regulatory agencies should respond in a timely manner to permit requests. Individuals who wish to undertake projects that are not detrimental to the public interest should not have to bear the burden of delay created by excessive bureaucratic review.

I am also concerned that a requirement placed on state agencies to prepare reports to the Corps, added to present permit review procedures, would require significant additional expense and manpower. This is of special concern during our current state budget problem. However, the review of the few additional applications generated in Wisconsin under an expanded definition of waters subject to regulation would likely create only a marginal work load increase if additional federal review were not required.

This suggests the need for a different, cooperative administrative approach. Such an approach could allow expanded regulation of dredge and fill activities under federal authority, yet minimize state-federal duplication. I believe a model for this kind of approach can be found in the cooperative administration of discharge permits under the Federal Water Pollution Control Act Amendments of 1972. The Wisconsin Pollution Discharge Elimination System demonstrates state administration of a permit system under federal and state law.

A similar cooperative program could be applied successfully to dredge and fill permits. After meeting federal requirements, states should be encouraged to qualify for authority to administer the permit system. States would then take over the program following federal guidelines. Individual actions could still be

reviewed by a federal agency when desired. If costs to states increase substantially, provision should be made for federal/state cost sharing programs. This may require congressional action.

In summary, I would support an expanded definition of navigable waters as proposed in Corps alternative 1, if coupled with the administrative delegation of responsibility outlined above. This approach would extend protective dredge-and-fill regulations, while directly dealing with the problem of overlapping and concurrent Federal-State jurisdiction on public waters.

I firmly believe that this approach would provide the most effective and administratively efficient response to the District Court of Columbia's ruling.

Thank you for the opportunity to comment.

Sincerely,

PATRICK J. LUCEY, *Governor.*

METAIRIE, LA., *July 27, 1976.*

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

DEAR MR. RANDOLPH: I realize that this letter is late for being in the record of the hearings of July 27–28, 1976 on Section 404 of the Clean Water Act, but I would like to express to you my deep concern over the Senate Public Works Committee Hearings on amending this Act.

My feeling is that at this point it is untimely to amend Section 404. No hearings or amendments should be considered until the full three phase program has gone into effect.

H.R. 9560 (now Senate 2710) excludes much wetland area from protection and cuts back the control provided by Section 404. Protection of our wetlands is of vital importance in Louisiana and it is deplorable that our representatives, Wright and Breaux would sponsor a bill or amendment gutting several sections of the Clean Water Act.

Yours sincerely,

BETTY WOOD.

WORCESTER ENVIRONMENTAL TRUST,
Snow Hill, Md., July 24, 1976.

Re the record of the hearing of July 27–28, 1976, on section 404 of the Clean Water Act.

Hon. JENNINGS RANDOLPH,
Chairman, Public Works Committee, Dirksen Senate Office Building,
Washington, D.C.

DEAR SENATOR RANDOLPH: Without giving the Section 404 program a chance, it is being amended—why? Is it because polluters are afraid of it? Will we ever be able to clean our streams and waterways from the wastes that plague them?

We consider it premature to amend Section 404 before the full three-phase program has gone into effect.

We are alarmed that H.R. 9560 (now renumbered S. 2710) excludes most wetlands from protection under Section 404 and cuts back controls over the nation's waters under the 1899 Rivers and Harbors Act. In this respect we feel the proposed Senate Hart-Cleveland amendment is preferable to the Wright-Breaux amendment now included in S. 2710.

The value of wetlands for breaking down and removing pollutants, for absorbing flood waters, and for providing food for fish and wildlife, is well known. Here in Worcester County, Maryland, thousands of acres of wetlands have been destroyed for development. Many illegal dredging, filling and polluting actions have been stopped only as a result of Corps of Engineers investigation and intervention.

We find it distressing that the House amendment would stop the Section 404 program from controlling the discharge of polluted dredged materials into tributaries of drinking water supplies that do not fall within the House's narrowed definition of "navigable waters."

The integrity of America's waters is at stake. The Section 404 program gives us hope that the broad interests of all America will be served. We urge you to reject any amendment that would significantly reduce the ability of the Federal Water Pollution Control Act to prevent pollution and protect the nation's valuable wetlands.

Sincerely yours,

JOSEPH W. FEHRER, *Chairman.*

WTAX Radio,
Sangamon Broadcasting Co.
Springfield, Ill., July 16, 1976.

Hon. Jennings Randolph,
Chairman, Committee on Public Works,
Senate Office Building,
Washington, D.C.

Dear Senator Randolph: I would like to express my opposition to the language of the Wright-Breaux amendment to section 404 of the 1972 Water Pollution Control Act.

Senator, any lessening of the permit program that presently protects our wetlands will be a major setback in conservation. Land speculators, drainage districts and conniving politicians have done enough damage to our bottomlands in this country during this century to last forever, because it will take that long to reclaim the losses we have suffered.

When the Breaux amendment came up in the House, Nathanial P. Reed, Assistant Secretary for Fish, Wildlife and Parks, was quoted as stating, "Millions of acres of lakes, swamps and marshes and many thousands of miles of streams and rivers would lose federal protection under the amendment by Representative Breaux." The fact that some of this wording was changed by Mr. Wright and the terms "navigable waters" and "adjacent wetlands" lessened the obvious, it did nothing to offer protection to the inland waters, the hundreds of small tributary streams and marshes not covered by this wordage. The term "navigable waters" is ambiguous, as any waterways map will show the inconsistency of this term. This terminology has been a sore point for years by those who have done hand-to-hand combat with the "corps" since the early 1900's.

There are hundreds of capable people and at least a dozen organizations who should be giving testimony at your hearings on the 27th and 28th of this month, but were not invited. Why not, Senator? According to information I have, the National Wildlife Federation and the Natural Resources Defense Council are outnumbered on the 28th 5 to 2 in your witnesses box-score.

The midwest corn and soybean states right now are suffering the dryest year in the memory of many farmers. They wish to hell they had some sub-soil moisture that their crops could draw from. With the "license to drain" that this amendment will again offer, we may still see the day that this drought-like condition will be permanent. Our children surely will see it.

Don't open the drainage ditches for the selfish, money-hungry speculators and developers, large or small. Don't change the present "control" we now have under section 404. Do give others a chance to present the facts that will protect the future of our country's water resources and wildlife. At least be fair!

I have not always seen eye to eye with the doings of the Corps of Engineers, but in this instance and in several others where the Corps has been working in conjunction with the EPA and the Fish and Wildlife Service, I applaud them and cry "more" as I believe this sort of cooperation is the element we have lacked.

Please make this letter a part of the hearing record on July 27, 28, 1976 on the Wright-Breaux amendment.

Sincerely,

Edward J. Mahoney,
Outdoor Writer/Broadcaster.

Atlanta, Ga., *July 26, 1976.*

Hon. Jennings Randolph,
U.S. Senate Building,
Washington, D.C.

Dear Sir: I would like to state my opposition to the pending Wright amendment which will greatly reduce wetlands under section 404. I urge you to vote against this amendment.

Please make this letter a part of the hearing record. Thank you.

Charles J. Zimmerman, Jr.

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