A Study of the Advantages and Disadvantages of Virginia Assuming 404 Regulatory Authority Under the Federal Clean Water Act

N. Bartlett Theberge
Virginia Institute of Marine Science

Follow this and additional works at: https://scholarworks.wm.edu/reports

Part of the Marine Biology Commons

Recommended Citation

This Report is brought to you for free and open access by W&M ScholarWorks. It has been accepted for inclusion in Reports by an authorized administrator of W&M ScholarWorks. For more information, please contact scholarworks@wm.edu.
ADVANTAGES AND DISADVANTAGES
OF VIRGINIA ASSUMING REGULATORY AUTHORITY
UNDER THE FEDERAL CLEAN WATER ACT

Prepared by
N. Bartlett Theberge, et al.

for the
United States Environmental Protection Agency

Special Report in Applied Marine Science and
Ocean Engineering Number 296 of the

Virginia Institute of Marine Science
School of Marine Science
The College of William and Mary
Gloucester Point, Virginia 23062

December 1988
FINAL REPORT

A STUDY OF THE ADVANTAGES AND DISADVANTAGES OF VIRGINIA

ASSUMING 404 REGULATORY AUTHORITY UNDER THE FEDERAL CLEAN WATER ACT

TO THE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY THE

Virginia Institute of Marine Science
The College of William and Mary
Gloucester Point, Virginia

N. Bartlett Theberge, Principal Investigator

December 1988
This report reflects the opinions of project investigators and not an official opinion of the Virginia Institute of Marine Science, School of Marine Science of The College of William and Mary.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>iii</td>
</tr>
<tr>
<td>I. Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>II. Introduction</td>
<td>3</td>
</tr>
<tr>
<td>A. Purpose</td>
<td>4</td>
</tr>
<tr>
<td>B. Objectives</td>
<td>4</td>
</tr>
<tr>
<td>C. Methods</td>
<td>5</td>
</tr>
<tr>
<td>III. Legal Analysis of the Clean Water Act and the 404 Assumption Process</td>
<td>6</td>
</tr>
<tr>
<td>A. Legislative History</td>
<td>6</td>
</tr>
<tr>
<td>B. Statutory Requirements</td>
<td>8</td>
</tr>
<tr>
<td>C. Regulatory Requirements</td>
<td>9</td>
</tr>
<tr>
<td>IV. Summary of States' Experiences with 404 Program Assumption</td>
<td>12</td>
</tr>
<tr>
<td>A. Michigan</td>
<td>12</td>
</tr>
<tr>
<td>B. New Jersey</td>
<td>16</td>
</tr>
<tr>
<td>C. Oregon</td>
<td>17</td>
</tr>
<tr>
<td>D. Wisconsin</td>
<td>18</td>
</tr>
<tr>
<td>E. Minnesota</td>
<td>18</td>
</tr>
<tr>
<td>F. Maryland</td>
<td>18</td>
</tr>
<tr>
<td>G. Rhode Island</td>
<td>19</td>
</tr>
<tr>
<td>V. Wetlands Protection in the Commonwealth of Virginia</td>
<td>20</td>
</tr>
<tr>
<td>A. Tidal Wetlands Protection</td>
<td>20</td>
</tr>
<tr>
<td>B. Non-Tidal Wetlands Protection</td>
<td>22</td>
</tr>
</tbody>
</table>
## VI. History of 404 Assumption in Virginia

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Introduction</td>
<td>25</td>
</tr>
<tr>
<td>B. Review of Previous Studies</td>
<td>26</td>
</tr>
<tr>
<td>C. Summary</td>
<td>33</td>
</tr>
</tbody>
</table>

## VII. Summary of Questionnaire Results

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Introduction</td>
<td>35</td>
</tr>
<tr>
<td>B. Summary</td>
<td>36</td>
</tr>
</tbody>
</table>

## VIII. 404 Assumption Requirements and Virginia's Wetlands Program

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Existing State Legislation</td>
<td>38</td>
</tr>
<tr>
<td>B. Proposed Non-Tidal Legislation</td>
<td>44</td>
</tr>
<tr>
<td>C. Funding</td>
<td>49</td>
</tr>
</tbody>
</table>

## IX. Findings

| Page | 49 |

## X. Potential Advantages, Potential Disadvantages, and Uncertainties

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Potential Advantages of 404 Assumption</td>
<td>52</td>
</tr>
<tr>
<td>B. Potential Disadvantages of 404 Assumption</td>
<td>53</td>
</tr>
<tr>
<td>C. Uncertainties Associated With 404 Assumption</td>
<td>54</td>
</tr>
</tbody>
</table>

## XI. Conclusions and Recommendations

| Page | 55 |

## XII. Appendices

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Acronyms</td>
<td>61</td>
</tr>
<tr>
<td>B. Questionnaire Results</td>
<td>62</td>
</tr>
<tr>
<td>C. Wetlands Definitions</td>
<td>81</td>
</tr>
<tr>
<td>D. A Comparison of Exemptions and Program Elements Between the Federal 404 Assumption Program and State Programs</td>
<td>99</td>
</tr>
<tr>
<td>E. Virginia's Proposed Non-Tidal Legislation</td>
<td>110</td>
</tr>
</tbody>
</table>
ACKNOWLEDGMENTS

The research on which this report is based has largely been the product of a team effort composed of individuals representing the legal and scientific disciplines employed by the Virginia Institute of Marine Science, School of Marine Science of The College of William and Mary. The following individuals devoted either partial or full effort to this project over a fourteen month period:

N. Bartlett Theberge, Professor of Marine Science

Thomas A. Barnard, Jr., Assistant Professor of Marine Science

Walter I. Priest, III, Instructor in Marine Science

James E. Perry, Graduate Assistant

Susan W. Carter, Legal Assistant

Heather L. McGuire, Graduate Assistant

Special acknowledgments are given to the following individuals for their ideas, comments, and efforts:

Charles Rhodes, Project Officer, Environmental Protection Agency; Lori Williams, Office of Wetlands Protection, Environmental Protection Agency; Gary Frazer, U.S. Fish & Wildlife Service; Betty Kennedy and Hal Harrington, Michigan Department of Natural Resources; Carl Hershner, Center for the Study of Estuarine Resource Management and Policy; Catherine Harold; Mary Warinner for the cover drawing that was obtained from Tidal Wetland Plants of Virginia by G. M. Silberhorn, 1976; Dianne Bowers, Kay Stubblefield, VIMS Art Department, and William Jenkins, VIMS Photo Lab, for the cover layout; and Sylvia Motley, VIMS Print Department, for reproducing and binding this report.
I. EXECUTIVE SUMMARY

The protection and management of wetlands in the United States consists of a complex array of statutes and programs at the federal, state, and local levels. This complexity may be reduced, and the responsiveness of wetlands management to state and local needs enhanced, by a state assuming authority over certain non-tidal wetlands under Section 404 of the Clean Water Act. The purpose of this study was to assess the advantages and disadvantages associated with the Commonwealth of Virginia assuming authority over non-tidal wetlands subject to Section 404(g)-(t) of the Clean Water Act (CWA).

Non-tidal wetlands in Virginia comprise an estimated 753,000 acres or approximately 75% of the Commonwealth's wetlands resources. Thirty-six percent of the state's non-tidal wetlands are located outside of Virginia's coastal plain. Although only 20% of all the wetland permit actions within the state presently occur in the category of non-tidal wetlands, this percentage will increase as developmental pressures grow. Currently, non-tidal wetlands are not adequately protected by state or federal programs. It is imperative that the state implement an effective non-tidal wetlands program. One possible route towards a state non-tidal wetlands program is by assuming federal Section 404 authority. However, in an eleven year existence the 404 assumption program has had only one state successfully satisfy federal criteria for assumption. Inherent in the federal 404 assumption program is confusion among federal agencies over the definitions of wetlands, conflict over the status of federal guidelines, and ambiguity between state and federal authority. Although funding is possible under federal statute, federal monies are currently unavailable to states to operate a 404 assumption program. In addition, Virginia cannot currently satisfy federal criteria associated with the 404 assumption program. Therefore, at the present time the potential disadvantages and uncertainties outweigh the advantages offered by Virginia's assumption of 404 authority.

It is recommended that the state pursue its own non-tidal wetlands protection program through a governmental structure analogous to that currently used by the Virginia Marine Resources Commission (VMRC) and local
wetlands boards. In addition, given the experience and effectiveness of the VMRC in managing wetlands, it is recommended that the VMRC be designated as the lead agency in non-tidal wetlands management. Critical to the state's management of non-tidal wetlands is the development of a public education program for all the citizens of the Commonwealth. The education program should precede the implementation of a non-tidal wetlands program.

The federal government could undertake several initiatives to make 404 assumption more attractive to states. It is recommended that the federal government resolve ambiguities and conflicts inherent in the 404 program. In recognition of the proven history of the states in the management of tidal wetlands, it is recommended that the federal government broaden the 404 assumption program to allow states to assume authority over tidal and non-tidal wetlands. Broad wetlands authority could then be assumed by the states and authority over navigable waters retained by the federal government. Federal funding for implementation costs associated with 404 assumption programs should be provided to the states as an additional incentive.
II. INTRODUCTION

The protection and management of wetlands in the United States consists of a complex array of statutes and programs at the federal, state, and local levels. This complexity may be reduced, and the responsiveness of wetlands management to state and local needs enhanced, by a state assuming authority over certain non-tidal wetlands under Section 404 of the CWA (prior to 1977 cited as the Federal Water Pollution Control Act (FWPCA)). Section 404 of the CWA of 1977 provides the federal government with broad jurisdictional powers over wetlands of the United States. Through Section 404(g)-(t)\(^1\) of this act, states may assume authority over those wetlands within their borders that are not adjacent to navigable waters.\(^2\)

In 1970, 75% of the wetlands in the Commonwealth of Virginia fell into the non-tidal wetlands category.\(^3\) The geographic distribution of the state's non-tidal wetlands is disproportionate in that 64% are in the coastal plain, 28% in the piedmont, and 8% in valley and ridge zones.\(^4\) Twenty percent of all projects that may impact wetlands take place outside of the coastal plain.\(^5\) Although wetlands outside the Coastal Plain are at present subject to little developmental pressures, these pressures will increase.

\(^1\) 33 U.S.C. Sec. 1344(g)-(t).
\(^2\) "Delegation" is sometimes heard in reference to a state administering a wetland program under Section 404 of the Clean Water Act. The use of the word "assumption" in terms of state administration of a wetlands program for wetlands not adjacent to navigable waters is appropriate in the sense that the federal government, the paramount authority over wetlands in the United States, allows states by virtue of Section 404 (g)-(t) to assume authority over such wetlands if state programs satisfy federal criteria. The federal government retains all authority however. There is no literal delegation of authority under this program.
\(^5\) Personal communication, Norfolk District, U.S. Army Corps of Engineers.
To date, the state has no specific authority over its non-tidal wetlands. One potential path that may be used to achieve this authority (and, consequently, minimize the federal government's role in the Commonwealth's affairs) is through state participation in the 404 assumption program.

A. PURPOSE

The purpose of this study was to assess the advantages and disadvantages associated with state of Virginia assuming authority over those wetlands subject to Section 404(g)-(t) of the Clean Water Act.

B. OBJECTIVES

The objectives of the study were:

1. the identification of statutory and regulatory requirements under Section 404 of the CWA;

2. the identification of additional legislation that may be necessary for the state to comply with federal requirements for the assumption of Section 404 authority;

3. the identification of the advantages and disadvantages of Virginia's assumption of Section 404 authority;

4. the identification of an appropriate state agency structure and its associated responsibilities for assuming Section 404 authority;

5. the identification of costs and sources of funding at the state and federal levels for assumption of Section 404 authority;

6. the development of findings and recommendations regarding the assumption of Section 404 authority.
C. METHODS

The methods used to achieve the objectives were:

1. an analysis of statutes, regulations, legislative history, and case law relevant to state assumption of Section 404 authority;

2. a review of other states' activities relevant to assumption of Section 404 authority;

3. a review of funding structures in other states and an analysis of the costs associated with the Army Corps of Engineers (ACE) current 404 permitting activities in the Commonwealth of Virginia and the operation of similar agencies' programs within the state;

4. an analysis of the history of Section 404 assumption in Virginia;

5. an analysis of the results of questionnaires directed to state agencies, environmental groups, wetlands boards, and other states;

6. a comparison of Virginia law and Section 404 requirements.
III. LEGAL ANALYSIS OF THE CLEAN WATER ACT

A. LEGISLATIVE HISTORY

In 1970 the FWPCA was first introduced in the Senate. What is now contained in Section 404 was not a part of the original Senate bill. An amendment providing for the Secretary of the Army to regulate the disposal of dredge spoil and exempt federal waters projects from FWPCA requirements was introduced and failed. In 1971 a similar amendment (Section 404) was offered. In addition to authorizing the Secretary of the Army to regulate the disposal of dredge spoil and exempt federal water projects, this amendment (Section 404) introduced the first reference to environmental habitat protection. At the same time, an amendment to Section 402 of the FWPCA was proposed that further expanded the ACE authority over navigable waters. This amendment specified that the federal government would have to comply with FWPCA guidelines established for pollution abatement and that the Environmental Protection Agency (EPA) would retain final permit approval over the choice of disposal sites for the placement of dredged and fill material.

On the Senate floor the proposed amendments to Section 402 and 404 were combined to form the basis of key sections (b) and (c) of Section 404 as it exists today. This compromise amendment was approved by the full Senate and introduced in the House. It is interesting to note that the

committee report presented to the full House indicated that 404 was viewed as a section to protect critical habitat. In October of 1972, after Senate and House debate, the amendments that included Section 404 to the FWPCA, were enacted into law.

In 1975 in the case of Natural Resources Defense Council v. Callaway (hereinafter cited as NRDC v. Callaway), the U.S. Supreme Court ruled against the ACE's narrow interpretation of the term navigable waters and required the ACE, over a specific time frame, to expand its regulations to exercise broader jurisdiction over the nation's waters, including wetlands. Many in Congress felt that the FWPCA, as interpreted by the court's in NRDC v. Callaway, placed too heavy a burden of enforcement on the ACE. Further, Congress anticipated no possible expansion of future funding to the ACE to provide for the staff increases necessary to enforce the court's requirement for broader implementation. The expanded role and lack of funding forced the ACE into a position of managing a "too large program poorly" situation, therefore weakening the intent of the enforcement of Section 404.

In 1977 during the 97th Congress of the United States, an amendment was added to Section 404 of the CWA that, along with several other changes, allowed the EPA to authorize a state to assume "... all or any part of those functions vested in it ..." relating to wetlands protected by Section 404. This assumption process along with the establishment of nationwide permits, which will not be discussed, was brought about to relieve expanded jurisdictional burdens placed on the ACE by a previous court decision (NRDC v. Callaway, 1975).

9. Id. at 1160.
B. STATUTORY REQUIREMENTS

Sections 404(g)-(t) of the CWA contain the language that set forth the following criteria a state must follow to apply for assumption of Section 404 regulatory authority.

First, the governor of a state desiring to apply for assumption shall submit to the EPA Administrator a complete description of the program it proposes to establish and administer. A certification from the state Attorney General that the state has adequate authority to carry out the program is also required.

Next, Section 404(h) sets forth detailed criteria for approving a state's program. These criteria include determining that a state has the authority to: issue permits that assure compliance with 404(b)(1) guidelines; terminate or modify permits; assure compliance with monitoring and reporting requirements; provide sufficient public notice of each permit application; abate violations of the permit program, including civil and criminal penalties and other means of enforcement; and assure continued cooperation with federal and state review agencies.

Section 404(i) addresses procedures whereby the EPA Regional Administrator may withdraw approval of a state's program if the program is not in compliance with established guidelines and criteria.

Additionally, Sections 404(j) through (q) list criteria for permit applications regarding distribution of applications, public review, and categories of discharges not requiring permits.

10. 33 U.S.C. Sec. 1344(g)-(t).
11. 33 U.S.C. Sec. 1344(g)(1).
12. 33 U.S.C. Sec. 1344(h).
13. 33 U.S.C. Sec. 1344(i).
14. 33 U.S.C. Sec. 1344(k)-(q).
Section 404(r) exempts federal projects specifically authorized by Congress from permit requirements if an environmental impact statement has been submitted to Congress prior to the actual discharge of dredged or fill material in connection with the construction of such project and prior to either Congressional authorization of such project or appropriation of funds for such project. 15

Section 404(s) sets forth penalties for violations of permit conditions. 16

Section 404(t) provides that nothing in the previous sections shall prevent any state from controlling the discharge of dredged or fill material in any portion of the navigable waters within the jurisdiction of such state including activities of any federal agency. This section, however, shall not affect or impair the authority of the Secretary of the Army to maintain navigation. 17

C. REGULATORY REQUIREMENTS

After passage of the 1977 amendments to the CWA, EPA promulgated regulations allowing states to assume authority over certain wetlands under Section 404 of the act. Title 40, Part 233 of the Code of Federal Regulations contains the procedures EPA follows in approving, revising, and withdrawing state 404 programs as well as the requirements state programs must meet to be approved by EPA.

The most important requirement a state must meet in order to apply for assumption of federal 404 authority is that a state's program must be complete. A state program must at a minimum include regulatory authority over all tidal and non-tidal wetlands within the state's boundaries as

15. 33 U.S.C. Sec. 1344(r).
16. 33 U.S.C. Sec. 1344(s).
17. 33 U.S.C. Sec. 1344(t).
defined by the 404(b)(1) guidelines.¹⁸ This does not preclude a state from adopting more stringent requirements or a program with a larger scope. However, only those requirements pertinent to administration of those wetlands covered by Section 404 need to be presented to the Administrator of EPA for consideration of state assumption.

The elements of a program submission are presented in Section 233.10. A proposed 404 implementation program must include the following items:

1. A letter from the governor of the state requesting program approval (Sec. 233.10);

2. A program description of the scope, structure, coverage, and processes of the state program and a description of the organization and structure of the state agency(ies) that have responsibilities for administering the 404 program (Sec. 233.11);

3. A statement from the state's Attorney General affirming that the laws of the state provide adequate authority to administer the 404 program (Sec. 233.12);

4. A memorandum of agreement (MOA) executed by the Director of the state assumption program and the EPA Regional Administrator. The agreement allows the EPA to review relevant records, reports, files, etc., establishes frequencies and contents of state reports, documents, etc. to EPA, and contains provisions accorded the state program (enforcement,

¹⁸ The 404(b)(1) guidelines were developed by EPA. There has been a history of conflict over the status of these guidelines. Despite the holdings in several court cases (Avoyelles Sportsmen's League v. Marsh, 715 F.2d 897 (1983); John A. Barsani v. EPA, 674 F.Supp. 405 (1987)), there still seems to be confusion over 404(b)(1) guidelines and their application and interpretation.
administration, compliance, etc.) (Sec. 233.13);

5. A MOA between the Director of the state assumption program and Secretary of the Army which must include a description of the state's waters, joint processing procedures, proposed general permits, and other provisions to ensure state compliance (Sec. 233.14).

6. Copies of all applicable state statutes and regulations including those governing applicable state administrative procedures (Sec. 233.10).

Of the six, the second component, the program description, is by far the most time consuming and crucial for EPA approval of a state program. The first and sixth components are self-explanatory and will not be discussed further. A description of each of the other four components follows:

Program Description (Sec. 233.11) - The description must contain the scope and structure of a state's program including the extent of state jurisdiction, scope of activities regulated, anticipated coordination, scope of permit exemptions and permit review criteria, a description of the organization and structure of the agency or agencies that will run the state program including the lead agency, and a description of the funding and manpower that will be available for program administration.

A state must also submit copies of the applicable state procedures (i.e. permitting, administrative, and judicial), permit and reporting forms, and a description of compliance evaluation and enforcement programs including a description of how the state will coordinate its enforcement strategy with the ACE and EPA.

It is also the responsibility of a state to describe state regulated waters, i.e. those over which the ACE will not retain regulatory authority.
Other enclosures must include an estimate of the anticipated number of discharges and a description of the best management practices proposed to be used.

**Certification of State Statutes (Sec. 233.12)** - A state must supply a statement from its Attorney General certifying that the laws of the state are adequate to meet the program requirements described under Sec. 233.11. It must include: citations to specific statutes, citations to administrative regulations, any judicial decisions that demonstrate adequate authority of the state to regulate the program, a legal analysis of state law regarding taking of private property, and for programs that involve more than one state agency, a certification that each agency has full authority to administer respective portions of the program and that the state as a whole has overall full authority.

**MOA's (Sec. 233.13 and 233.14)** - Two MOA's must be completed. The first is a MOA with the Regional Administrator of EPA. It must be executed by the Director of the state assumption program and the EPA Regional Administrator. The MOA defines the specifics, frequency of reports, and submission dates. It sets out provisions on state compliance, monitoring, and enforcement, specifies classes and categories of permit applications for which EPA will waive federal review and contains provisions for modifications to the MOA. The second is a MOA with the Secretary of the Army. It must include a description of state regulated waters, as identified by the Secretary of the Army, procedures for joint processing of 404 permits, procedures the state will use to administer and enforce general permits, and procedures the Secretary of the Army will use to transfer pending Section 404 applications to the state.

**IV. A SUMMARY OF STATES' EXPERIENCES WITH 404 PROGRAM ASSUMPTION**

**A. MICHIGAN**

The CWA authorizes individual states to administer their own permit programs for the discharge of dredged or fill materials into waters and
wetlands covered under Section 404. In August of 1984, the State of Michigan became the first state to assume authority over certain wetlands as allowed under Section 404. In Michigan, dual regulation of dredge and fill activities at the state and federal levels of government had resulted in a duplication of public efforts and requirements. The objectives of assuming Section 404 were to avoid duplication of effort, reduce time delays associated with issuing permits, and reduce public and private sector costs. The State of Michigan felt better qualified than the federal government to deal with the protection of its own waters and wetlands and, by assuming Section 404, would be better able to manage its natural resources. With the passage of the amendments to the CWA in 1977, Michigan began the process of adopting specific legislation designed to provide the state with the authority necessary for state assumption of the dredge and fill permit program for certain wetlands under Section 404.

Sections 404(g)-(t) of the CWA of 1977 allowed state assumption of federal dredge and fill permit authority over certain wetlands not adjacent to navigable waters. In 1980 the EPA promulgated the "Consolidated Permit Regulations" (now known as 404(b)(1) guidelines) that detail the requirements of state program submission for assumption under the 404 program. Michigan state statutes with a direct relationship to 404 assumption requirements under the CWA and the EPA's "Consolidated Permit Regulations" (now known as 404(b)(1) guidelines) are listed below.

19. 33 U.S.C. Sec. 1344(g)-(t).
23. Id.
The Great Lakes Submerged Lands Act

Inland Lakes and Streams Act

Goemaere-Anderson Wetland Protection Act

Water Resources Commission Act

Administrative Procedures Act

Michigan conducted a 404 assumption feasibility study that analyzed the state's dredge and fill related statutes. The study revealed that Michigan did regulate all the activities covered by the federal program and that the state "exerted regulatory function over all of the waters subject to the federal permitting process." Prior to program approval, the state in conjunction with the EPA and the ACE, conducted a feasibility demonstration program using assumption documents and applicable ACE regulations. The demonstration program indicated that Michigan was capable of implementing the federal 404 program and in 1984 Michigan's Section 404 program was federally approved.

Currently Michigan's Department of Natural Resources, Land and Water Management Division, employs 25 field staff located in 12 district field

25. Id. at Sec. 281.951 et seq.
26. Id. at Sec. 281.702 et seq.
27. Id. at Sec. 323.1 et seq.
28. Id. at Sec. 24.201 et seq.
31. Id.
offices throughout the state and operates a 404 assumption program with approximately a $2,000,000 annual budget. The staff in coordination with the state's Fisheries, Wildlife and Water Quality biologists determines final actions on permit applications. In 1987, out of 7,000 applications, 2,800 section 404 files were processed. Ninety of these permits were in the major discharge category. Thirty-two percent of major discharge applications were denied; twenty-seven percent were modified; thirteen percent were issued as applied for; and twenty-four percent are pending. Projections for 1988 are that 50% of all applications processed by the Land and Water Management Division will be Section 404 related and will require half of the Division's support funds, which come from state appropriations and permit fees.

The major problems encountered while working toward 404 assumption were: designing and developing a state program that adhered to the EPA's extensive Consolidated Permit Regulations (now known as 404(b)(1) guidelines) and the loss of dual state and federal enforcement capabilities. It was further noted that although the state seeks input from the EPA on major enforcement fill cases involving restoration and penalties, the state must formally exhaust its enforcement capability before referral of violations to the EPA. The major benefits of the current program are a reduction in time delays and private and public sector costs; management of Michigan's natural resources in accordance with the state's

34. Id. at 4.
35. Id. at 6, 7.
36. Id. at 3.
37. Id.
management plans; diminished ACE influence on Michigan's inland waters; a reduction in duplication of effort between state and federal agencies in dredge and fill permit processing; and the availability of an administrative appeals process for contested cases rather than appealing through the federal courts. 38

B. NEW JERSEY 39

The state of New Jersey is currently investigating assumption of Section 404 of the CWA. While no preliminary study on the feasibility of assuming Section 404 authority has been conducted, the state has identified several problems with the federal 404 program including: 1) slow response times to wetlands verification requests and permit applications occurring as a result of understaffing at the District Corps office; and 2) the issuance by the District Corps of nationwide permits for many activities resulting in significant adverse impacts on New Jersey's wetlands.

It is anticipated that assumption of Section 404 authority will provide increased wetlands protection through better program coordination, increased consistency in wetland delineation, and consistency in decision-making. The state program will also consolidate permit requirements thereby offering a quicker response time to applicants. Funding for the state 404 program will be derived from state appropriations and permit fees. It is anticipated that $60,000 will be required to initiate its program and $2,000,000 will be needed annually for operation of the program. 40

38. Id. It is an advantage to developers to have recourse to a state administrative appeals process and recourse to state courts. It may, however, prove to be detrimental to wetlands conservation in that state courts may not prove as conservative oriented as federal courts and federal interests may be thwarted by the use of state administrative processes and state courts.
39. Information for this section was obtained from a questionnaire completed by Robert Piel, Jr., Chief, Bureau of Freshwater Wetlands for the State of New Jersey (1988).
In 1987 the New Jersey legislature passed the Freshwater Wetlands Protection Act requiring strict regulation of activities in freshwater wetlands. The passage of this legislation fulfills one of the many requirements for state assumption of Section 404 of the CWA. New Jersey anticipates submission of its program description to the EPA.

C. OREGON

The state of Oregon has a history of regulating dredge and fill activities in its state waters since 1971 and for several years has been investigating the assumption of Section 404 authority although no formal application has been submitted to the EPA.

Oregon is interested in assuming Section 404 authority as a means of 1) centralizing fragmented decision-making at the state level; 2) eliminating duplication of regulatory efforts; and 3) providing consistency between state and federal programs thereby providing greater credibility with the regulated public. Funding for Oregon's state 404 program will be obtained from revenues generated by non-constitutionally dedicated receipts from the use of public trust lands.

Although a preliminary study on the feasibility of Section 404 assumption was conducted, the study did not result in a document. The primary focus was a legal analysis conducted by the state's Attorney General's office. The study did not address any problems with the federal 404 program. The analysis concluded that Oregon's definition of "waters of

\[\text{References}\]

41. N.J.S.A. Sec. 13:9B-1, et seq.
42. Information for this section was obtained from a questionnaire completed by Kenneth F. Bierly, Environmental Specialist, Division of State Lands for the State of Oregon (1988).
the state" did include non-tidal wetlands. Oregon's legislature has not taken any actions with regard to enacting a specific non-tidal wetlands law.

D. WISCONSIN

The state of Wisconsin will be receiving a grant from the EPA to study the feasibility of Section 404 assumption.

E. MINNESOTA

The state of Minnesota will be receiving a grant from the EPA to study the feasibility of Section 404 assumption.

F. MARYLAND

The state of Maryland has chosen not to pursue Section 404 assumption at the present time. Although no preliminary study on 404 assumption was conducted, Maryland expressed concerns that the present 404 assumption requirements contained troublesome review, approval, and reporting criteria.

In the opinion of the state, existing state and federal legislation offer adequate protection of wetlands. At the state level, non-tidal

44. "Waters of this state" are defined as "natural waterways including all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, and other bodies of waters in this state, navigable and non-navigable, including that portion of the Pacific Ocean which is in the boundaries of this state." An Attorney General's opinion, 39 Op. Atty. Gen. 690, 1979, also has been interpreted to include a natural freshwater wetland area.
46. Id.
47. Information for this section was obtained from a questionnaire completed by David Burke, Chief, Non-Tidal Wetlands Division, Department of Natural Resources, Water Resources Administration for the State of Maryland (1988).
wetlands protection programs include: 1) the Non-tidal Wetlands Initiative establishing a five-year cooperative program between state and county governments for the protection of non-tidal wetlands; 2) a state-wide database for tracking the current status and recent trends of wetland resources; 3) an educational program for local government representatives on the value and need to protect these resources; and 4) a state-wide mapping and wetland monitoring program showing the distribution, types, and amount of wetland resources found in the state. Currently, the Maryland Critical Area Law\textsuperscript{48} regulating activities within 1,000 feet of tidal waters of Chesapeake Bay is the most stringent of any federal or state program being implemented in Maryland. It is anticipated that legislative action with regard to non-tidal wetlands will occur in January of 1989.

Positive impacts identified as a result of the non-assumptive route Maryland has chosen include: 1) improved processing time and burden sharing with the federal government through a regional, conditional permit strategy specifying what the state is willing to manage and can manage effectively; 2) fewer costs to the state; 3) more direct local government involvement; and 4) a clarification of which waters and wetlands are regulated.

G. RHODE ISLAND

The State of Rhode Island has chosen not to pursue assumption at the present time.\textsuperscript{49} Rhode Island did not to respond to our study questionnaire.

\textsuperscript{48} Md. Code Ann. Sec. 14.15.
\textsuperscript{49} Personal communication, Lori Williams, Office of Wetlands Protection, U.S. Environmental Protection Agency (1988).
V. WETLANDS PROTECTION IN THE COMMONWEALTH OF VIRGINIA

A. TIDAL WETLANDS PROTECTION

Official recognition of tidal wetlands in the Commonwealth of Virginia began in 1967 and after almost five years of scientific studies and legislative activities, the Virginia Wetlands Act was passed and became effective on July 1, 1972.\(^{50}\) Initially crafted to protect only the vegetated tidal wetlands, the non-vegetated portion of the intertidal zone was added to the act in 1982.\(^{51}\) Legal protection is now afforded the entire intertidal zone where no vegetation is present and a supra-tidal zone equalling an area extending landward from mean low water to an elevation equal to one and one-half times the mean tide range where marsh vegetation is present.\(^{52}\)

The act articulates a policy "to preserve the wetlands and to prevent their despoliation and destruction and to accommodate necessary economic development in a manner consistent with wetlands preservation."\(^{53}\) This is accomplished by requiring a permit for any use or development of wetlands other than a list of exempted activities named in the act.\(^{54}\) These range from all governmental activities on government owned or leased land to the erection of private piers and duck blinds. Standards for use or development are stated in the act.\(^{55}\) State guidelines have been promulgated.

\(^{53}\) Id. at Sec. 62.1-13.1.
\(^{54}\) Id. at Sec. 62.1-13.5.
\(^{55}\) Id.
by the VMRC\textsuperscript{56}, with the research and advisory expertise of the Virginia Institute of Marine Science (VIMS), a state research and educational institution affiliated with the College of William and Mary.\textsuperscript{57} Furthermore, VIMS maintains a continuing inventory of the state’s 215,000 acres of tidal wetlands.\textsuperscript{58}

Another feature of the wetlands protection program in Virginia is the involvement by choice of thirty-two local wetlands boards whose jurisdictions encompass approximately 90% of all tidal wetlands in the Commonwealth. These boards review permit applications affecting wetlands within their jurisdictions. The VMRC acts on all permits for localities where no local board is in existence and also in the case of all state-owned wetlands.\textsuperscript{59} The act requires that a public hearing be held within sixty days of the receipt of a completed application and a decision must be made within thirty days of the public hearing or the proposal is deemed approved.\textsuperscript{60} In most cases, boards hold public hearings within sixty days and make a decision at the hearing. The act requires the concurring votes of three members of a five-member board or four members of a seven-member board in order to issue a permit.\textsuperscript{61} It is therefore possible, in the absence of three members of a seven-member board, to have an affirmative vote of three to one result in the denial of the permit.

Appeals of wetlands board decisions may be made by the applicant or by twenty-five property owners within the locality affected.\textsuperscript{62} The appeal is to the VMRC and if not satisfied at that point then to circuit court.

\begin{itemize}
\item \textsuperscript{56} Virginia Marine Resources Commission and Virginia Institute of Marine Science, \textit{Wetlands Guidelines}, (1974; revised 1982) 52 p.
\item \textsuperscript{57} Va. Code Ann. Sec. 62.1-13.4.
\item \textsuperscript{58} Id.
\item \textsuperscript{59} Id. at Sec. 62.1-13.5.
\item \textsuperscript{60} Id.
\item \textsuperscript{61} Id.
\item \textsuperscript{62} Id. at Sec. 62.1-13.11.
\end{itemize}
The VMRC must also review all decisions of the local board. VMRC has the power on appeal to review, reverse, remand, or modify the decision of the local board. 63

Recent actions by the Norfolk District Corps of Engineers have resulted in assumption of greater responsibility by the Commonwealth and local wetlands boards with regard to wetlands protection. The ACE in Norfolk has issued a series of general and regional permits that have effectively delegated most of the routine wetland decision-making to the local boards. At the present time the Norfolk District is proposing a Local Program Regional Permit that would delegate to six local boards sole authority for the issuance of wetlands permits. It is not known when or if this proposal will be implemented.

Experience since 1972 indicates that the local boards generally function well although there are some exceptions. The whole program suffers from the same weaknesses that any program of decentralized resource protection faces. Fair and equal implementation, difficulties in addressing cumulative impacts and consistency within the decision-making process are the main problems that have been identified over time. The tidal wetlands protection program in Virginia is generally regarded as effective and active, and could serve as a base of experience for any non-tidal protection program.

B. NON-TIDAL WETLANDS PROTECTION

During the latter half of 1986 efforts to develop a non-tidal wetlands protection act for Virginia were begun through the efforts of the Chesapeake Bay Foundation (CBF). This organization began with concepts gleaned from existing state and federal wetlands protection legislation and pulled together a group of local experts from academia, federal, state, and local government, as well as other conservation groups to mold these ideas

63. Id. at Sec. 62.1-13.13.
into a workable draft. Initial problems encountered by this "Ad Hoc Wetlands Committee" centered around definitions, choice of a lead agency, and the fact that CBF proposed that the non-tidal act be incorporated into the existing tidal wetlands act. This would involve the establishment of local wetlands boards in each county, city, or town with the VMRC serving as the wetlands board for areas choosing not to form a board of their own.

A draft bill was developed and underwent several iterations with the Ad Hoc Committee. CBF began talking to other groups having an interest in non-tidal wetlands protection in Virginia such as the Virginia Farm Bureau, the Virginia Lumber Manufacturer's Association, the Virginia Association of Counties, and the Virginia Municipal League. Contacts were also initiated with the Virginia Department of Forestry and the Virginia Homebuilders Association.

A major turning point in the development of the bill came in August of 1987 when CBF met with the Secretary of Natural Resources and additional state agencies having an interest in the proposed wetlands legislation. Out of this meeting came a decision not to tie non-tidal wetland protection to the existing tidal wetlands act.

After revising the proposed bill several times during the fall of 1987, CBF produced a final draft and presented it to the Secretary of Natural Resources on December 11, 1987. Major tenets of this draft were:

- non-tidal wetlands defined using a three-parameter approach;

- activities in such wetlands adjacent to state waters are to be regulated although isolated wetlands of less than one-half acre in size are exempt;

- lead agency responsibility for most activities is given to the Department of Conservation and Historic Resources;
- normal silvicultural activities must comply with best management practices established by the State Department of Forestry;

- projects impacting both tidal and non-tidal wetlands will be handled by the VMRC;

- all non-tidal wetlands within the boundaries of the Commonwealth fall under the influence of this bill.

The bill that emerged from the Administrative Branch of government and was introduced in the House of Delegates contained two major changes from the CBF final draft. These were that the geographical extent was limited to Tidewater, Virginia (previously defined in the State's tidal wetlands legislation) and all involvement of the VMRC was eliminated.

Limiting the legislation to Tidewater, Virginia, as defined, eliminated all wetlands west of the fall line as well as Sussex and Southampton Counties located in the southeastern area of the state. These two counties were eliminated from the tidal wetlands act because they have no tidal wetlands but they do have very large areas of non-tidal wetlands. Eliminating involvement of the VMRC, which had expressed no interest in non-tidal wetlands, was an attempt to simplify the bill that already included at least two other state agencies.

In the House of Delegates the bill was amended several times in two committees. These amendments further reduced the wetlands covered by the bill by raising the minimum wetland size that required a permit from one-half to one acre, expanding the existing forestry and agriculture exemptions, and restricting the wetland definition by reference to specific federal methodologies. The bill eventually passed the house on an overwhelming positive vote of 93 to 5.

On the Senate side the main focus of the Agriculture and Natural Resources Committee was on determining how much land would actually fall under the definition as proposed. Also of major concern was the amount of
ambiguity involved in actually making field determinations, how much time and expense would be involved, and how much room there was for interpretation by field agents. Special interest groups argued persuasively that there were too many unknowns involved with the bill and it should not be passed in its present state. The outcome in the Senate was to hold the bill until to the next legislative session and to appoint a five-member study committee to examine the bill in the interim.

VI. HISTORY OF 404 ASSUMPTION IN VIRGINIA

A. INTRODUCTION

Since the enactment of the amended Section 404 of the CWA in 1977, the Commonwealth of Virginia has twice, once in 1979 and again in 1982, considered the possibility of assuming control over those waters of the state eligible for assumption under Section 404.

The first request for the Commonwealth of Virginia to investigate 404 assumption was received in 1979. The request was initiated by a Bi-state Committee representing the states of Maryland and Virginia. The objective of the Committee was to investigate the potential benefits of assuming 404 authority. 64 Four state agencies and one department from the Commonwealth of Virginia were involved: the Council on the Environment (COE) (lead agency), Department of Commerce and Resources (DCR), State Water Control Board (SWCB), and VMRC. Using the information provided by state environmental agencies, a joint position paper was prepared that represents both the positive and negative aspects of 404 assumption. 65 At that time it

65. Id.
was determined that the assumption of 404 authority was not in the best interests of the states. Five disadvantages and three advantages were identified. Five recommendations for making assumption attractive to the states were also given. Each of these findings and recommendations are discussed in the following section.

In 1982 the ACE notified the Virginia Secretary of Commerce and Resources that the state's request to be placed under one ACE district had been approved. This notification "invited" the Virginia Secretary of Commerce and Resources to "consider the assumption of the responsibilities provided for in Sections 404(g) to (l) of the Clean Water Act." The Secretary's response was affirmative and initiated a second inquiry into the possibility of Section 404 assumption by the Commonwealth of Virginia. Responses were received by the Secretary of Commerce and Resources from the SWCB and VMRC. In the opinions of the SWCB and VMRC assumption still did not appear advantageous for the state, mainly for the same reasons as reported in the joint position paper.

B. REVIEW OF PREVIOUS STUDIES

Study I - Maryland-Virginia Joint Position Paper Concerning Delegation of Authority Under Section 404 of the CWA, September 1980

As mentioned above, in 1979 a Bi-state Committee representing the states of Maryland and Virginia, had been established to investigate the potential benefits of assumption of 404 authority to the respective states. The information gathered by the Bi-state Committee contained five

66. Letter from Thomas A. Sands, Brigadier General, Division Engineer, Corps of Engineers to Betty J. Diener, Secretary of Commerce and Resources, Nov. 10, 1982.
67. Letter from Betty J. Diener, Secretary of Commerce and Resources to Thomas A. Sands, Brigadier General, Division Engineer, Corps of Engineers, Nov. 23, 1982.
disadvantages to accepting the assumption of Section 404 wetlands. These were:

1. Both states' wetlands were already adequately protected;\(^{68}\)

2. There would be a need at the state level for an increase in staffing and paperwork to support the program;

3. At the time, assumption would only cover approximately 20% of permit actions in the state, the balance, 80%, would remain under the control of the ACE;

4. State independence would be hampered because of EPA's veto power;

and

5. New legislation would probably be needed and, even if enacted, there were questions about what a "fully enforceable" program was as defined by the EPA assumption regulations.

The first disadvantage contends that both states already adequately protect their wetland areas through state and federal programs (note: only those sections pertinent to the Commonwealth of Virginia will be discussed).

In Virginia, tidal wetlands fall under the wetland protection law,\(^{69}\) and, the paper contends, non-tidal areas are protected since "The state reviews all activities in State waters and wetlands (i.e. Phase I, II, and III) through the 401 water quality certification process."\(^{70}\) The Phases referred to are defined by the ACE as:

\(^{68}\) Memorandum from R. E. Bowles, State Water Control Board to M. A. Bellanca, Sept. 15, 1983.


Phase I - including all tidal waters and/or waters susceptible to use for commercial navigation;

Phase II - including primary tributaries to Phase I waters and lakes greater than five acres in surface area, plus wetlands adjacent to these waters; and

Phase III - including all waters of the United States up to the "headwaters" of a river or stream, defined as "that point above which the flow is normally less than five cubic feet per second."

The second disadvantage would add approximately 15 staff members to the state environmental regulatory process and an unknown number to enforcement. The estimate was based on the theory that the number of staff necessary to run the state 404 program would be similar to that necessary to run the existing state 401 program, numbering 15 at that time. Although federal funding was thought possible, the committee found no assurance that the funding would be provided and saw the added staff as a potential financial liability for the state. 71

The third disadvantage noted in the paper is probably the most universally mentioned and controversial portion of the assumption process; the ACE maintains full jurisdiction over navigable waters of the United States. This includes all of the Phase I and most of the Phase II areas. The paper contends that the added expense of increased staff and paperwork, EPA's veto power over the state's decision to issue or not issue a permit, the need for the state to accept advisory comments from the EPA, National Marine Fisheries Service (NMFS), and the Fish and Wildlife Service (FWS), and the responsibility of the state to mediate federal agency objections,

71. Federal funding for state assumption of 404 authority is possible under federal statute, 33 U.S.C. Sec. 1285(g)(2). However, it is currently unavailable.
would amount to a significant increase in state responsibility with minimal
gains of control, approximately 20%, over the total waterway activities
within the state.

Finally, even if all technical assumption requirements were met by
the state, the committee believed that it was unclear as to whether the EPA
would accept the program as "fully enforceable."

On the positive side the Committee found that:

1. Assumption may eliminate duplication of permits on the state
   and federal level;

2. Permitting criteria may be more finely tuned to local
   conditions; and

3. The public's interest would be best served by a state program
   that is tuned to local needs, i.e. one that will not become
   bogged down in narrow federal mandates.

However, the positive aspects were conceived to be heavily
outweighed by the negative and only with major changes in the system would
the state find assumption attractive. At a minimum the committee
recommended:

1. Allowing assumption of all of the Phases (i.e. I, II, and III)
   to the states;

2. Defining more explicitly the standards for evaluating the state
   laws and programs for "enforceability" and other requirements;

3. Clearly defining the conditions under which a federal veto could
   be involved;

4. Limiting the influence of the federal advisory agencies (i.e.
   ACE, EPA, FWS, and NMFS);
5. Assuring sufficient funds are available to cover additional costs associated with assumption for a "long period of time"; and

6. Assuring that federal funding is contingent solely upon having an approved operating permit system that carries out the intent of the law.

**Study 2 - 1982**

At the request of Brigadier General Thomas A. Sands, the Division Engineer, North Atlantic Division of the ACE, the state, through Dr. Betty Diener, then Secretary of Commerce and Resources, was invited to "consider the assumption of the responsibilities provided for in Sections 404(g) to (1) of the Clean Water Act". Dr. Diener's response was affirmative and requested a second inquiry into the possibility of Section 404 assumption by the Commonwealth of Virginia. Responses were received in the DCR office from the SWCB and VMRC. Their opinions had not changed from those reflected in the previous study, which both agencies had helped to prepare. However, several points made individually by the agencies are of interest and importance.

---

72. "Long period of time" is not defined in the paper.
73. The objective of the committee was to avoid a situation where federal funding could be removed from an approved system because of the federal government's opinion that a permit was inappropriately issued. *Diener, Maryland-Virginia Joint Position Paper Concerning Delegation of Authority Under Section 404 of the Clean Water Act*, (1980) These issues concerning federal funding are moot since federal funding is currently unavailable to states to operate a 404 assumption program.
74. Letter from Thomas A. Sands, Brigadier General, Division, Corps of Engineers to Betty J. Diener, Secretary of Commerce and Resources, Nov. 10, 1982.
75. Letter from Betty J. Diener to Thomas A. Sands, Brigadier General, Division Engineer, Corps of Engineers, Nov. 23, 1982.
The SWCB responded to the Secretary's request in a letter dated September 15, 1983. 76 The recommendation to not pursue assumption came in part from the belief that:

1. The state could only assume authority "for those waters of the state above the fall line" that "would account for not more than 20% of the 404's [permits] presently being issued....";

2. The increased expense of a larger staff and increased paperwork load would fall on the state;

3. The ability of the state to implement its "desires" and apply "effluent limitations" into the ACE permit process through the state 401 program effectively gives the state all the control of its wetlands that is necessary; and

4. The veto power over ACE's permit authority by the ACE's advisory agencies (EPA, FWS, and NMFS).

Two items that formed the basis for the SWCB's recommendations were incorrect. Item 1, which states that assumption would only affect areas west of (above) the fall line, is incorrect. Over 60% of the state's non-tidal wetlands are found in the coastal plain east of (below) the fall line and do fall under 404 protection. Therefore, the authority over many of these areas would be assumed by the state. However, this does not change the fact that 80% of the 404 permits issued during the early 1980's would have remained under the ACE's authority even if assumption by the state had

been approved. Also, Item 4 was erroneous because the SWCB was incorrect in stating that all three advisory groups have veto power over the ACE. Only the EPA, under Section 404(c) has a veto vote. The FWS and NMFS act strictly in an advisory capacity in matters concerning 404 authority and permits.

The SWCB offered recommendations similar to those contained in the Joint Position Paper of 1980 but with the addition of two new items. These were:

1. To amend the CWA to "specify that the 404 regulatory program pertains only to water quality;" and

2. To amend the 1899 Rivers and Harbors Act to "restrict the ACE's considerations on construction in navigable waterways to matters of navigation."

The VMRC made the following observations:

1. New legislation would be necessary for the state to comply with the "adequate authority" clause of 404(g);

2. If the state should "seize any opportunity offered to reduce Federal intrusion into the state decision processes", the citizens would be better served; and

77. Phase I and most of Phase II waters remain under the authority of the ACE even if a state assumes 404 authority. That leaves only a small portion of Phase II and all of Phase III waters subject to state 404 assumption authority. The only data available at the time of the study indicated that 80% of all permits issued by the ACE came under the categories of Phase I and Phase II waters of the United States, waters not subject to state 404 assumption authority.

3. The size of the staff needed to run a state 404 program may not be as large as first thought.

The first observation is correct; in order to assume Section 404 authority the state will need to enact a state-wide non-tidal wetland protection law. The second observation has been mentioned as a reason for state assumption. The rationale behind the third observation is that "SWCB regional staff might be able to assume full 404 and 401 certification responsibilities in non-tidal waters and adjacent wetlands, where water quality considerations tend to predominate, while VMRC... could assume the 401 certification responsibility along with [their] permitting authority, in tidal waters and adjacent wetlands."79

C. SUMMARY

Since 1979 the state has shown an interest in the possibility of assuming 404 authority over certain wetlands. However, the Commonwealth and its agencies as evidenced by two studies have expressed dissatisfaction with several aspects of 404 assumption:

1. The state’s wetlands are already adequately protected through the state’s 401 certification process and tidal wetlands act;

2. There would be an increase at the state level in staffing and paperwork to support an assumption program;

3. Assumption would only cover approximately 20% of permit actions in the state, the balance, 80%, would remain under the control of the ACE. [These figures reflect permit activities in the

late 1970's. It is felt that an assumption program would cover more than 20% of the permit actions in the state at the current time.); 4. State independence would be hampered because of EPA's veto power; 5. New legislation would probably be needed; and 6. A "fully enforceable" program as defined by the EPA assumption regulations needs to be resolved.

The state or its agencies felt that if the following changes were made to Section 404 of the CWA, the assumption process would be advantageous:

1. Allow assumption of all of the Phases (i.e. I, II, and III) by the state; 2. Define more explicitly the standards for evaluating state laws and programs for "enforceability" and other requirements; 3. Define clearly the conditions under which a federal veto would be involved; 4. Limit the influence of the federal advisory agencies (i.e. ACE, EPA, FWS, and NMFS); 5. Assure that sufficient funds are available to cover additional assumption costs for a "long period of time" (note: "long period of time" is not defined in the paper); and 6. Assure that federal funding is contingent solely upon having an approved operating permit system that carries out the intent of the law. The objective of the committee was to avoid a situation where federal funding could be removed from an
approved system because of the federal government's opinion that a permit was inappropriately issued. The legislative history of Section 404 of the CWA contains no indication that federal funding of state assumption programs was considered. However, the perception has arisen on the part of some state agencies that federal funding was implied. At present, the possibility of significant federal funding for state assumption programs appears to be remote. However, under Section 205(g)(2) of the CWA, the Administrator of EPA may fund the reasonable cost of administering an approved state 404 assumption program.

To achieve the goal of 1) above, the SWCB recommended that the Congress should:

1. Amend the CWA to "specify that the 404 regulatory program pertains only to water quality;" and

2. Amend the 1899 Rivers and Harbors Act to "restrict the ACE's considerations on construction in navigable waterways to matters of navigation."

VII. SUMMARY OF QUESTIONNAIRE RESULTS

A. INTRODUCTION

A questionnaire was developed to help identify the advantages and disadvantages of Virginia assuming Section 404 authority. A total of 44 questionnaires were prepared and mailed to different target groups: Virginia state agencies, Virginia local wetlands boards, environmental groups, and federal government agencies. Several respondents chose to

81. 33 U.S.C. Sec. 1285(g)(2).
respond as private citizens rather than on behalf of the agency or group they represent. Questionnaires were also mailed to other states who indicated an interest in 404 assumption. The responses to those questionnaires were summarized in Section V, A Summary of States' Experiences With 404 Program Assumption. Of the 44 questionnaires mailed, 40 responses were received. Appendix B contains detailed questionnaire results.

B. SUMMARY

Questions covered such topics as the extent of involvement with non-tidal wetlands, the need for a public education program, the adequacy of the ACE in protecting non-tidal wetlands, and the appropriate state agency to administer a state non-tidal program. This summary highlights some of the responses received.

All eight of the eight state agencies responding indicated that they had some involvement with non-tidal wetlands. However, only three have had experience in non-tidal wetlands delineation. All of the federal agencies and private environmental groups that responded have been involved with non-tidal wetlands and have had some experience with delineation.

Local wetlands boards had very limited involvement and experience in delineation of non-tidal wetlands. One board member wrote that delineation for 404 permits was handled in the past by consultants; another answered that their current staff had little experience or expertise. Only two members had experience with non-tidal wetlands delineation.

Both respondents who chose to answer as private citizens have had experience with non-tidal wetland identification and delineation.

A common theme that emerged from the responses was that federal, state, and local agencies were already constrained in terms of staff numbers, time, money, and technical expertise and, taking on the additional
responsibilities of 404 assumption would be difficult if not impossible. However, an overwhelming majority of the responses indicated that all non-tidal wetlands throughout the state should be protected.

As to whether non-tidal wetlands should be regarded as a state responsibility, a federal responsibility or a joint federal and state responsibility, there was a marked difference of opinion between the local wetlands boards and state agencies. At least 50% of the local wetlands boards felt that it should be a state effort and the other 50% felt that it should be a joint federal and state effort. The great majority of state agencies felt that it should be a state effort.

State agencies were split on the question of whether blanket exemptions to a state non-tidal wetlands law (i.e. agriculture, silviculture, highways, governmental activities, etc.) should exist. While a majority of the local wetlands boards and all federal agencies and private environmental groups felt blanket exemptions should not be included in a state non-tidal wetlands law. Private citizens were also split on this question.

In regard to the necessity of a public education program for non-tidal wetlands protection, 38 out of the 40 respondents felt that it was necessary. Most respondents felt that the level of success of a non-tidal wetlands protection program would be directly related to the public education effort and that a strong public education program would increase the support for a non-tidal wetlands protection program.

When questioned as to a best approach for running a non-tidal protection program (i.e. centralized - state control; decentralized - local control; or a combination), a majority (22 out of 40) felt the combination of a centralized and decentralized infrastructure was necessary.

In soliciting opinions as to which state agency should be in charge of a non-tidal wetlands protection program, the VMRC collected the largest amount of support.
When questioned whether the ACE is doing an adequate job of protecting non-tidal wetlands in Virginia under Section 404 of the CWA, the majority of the respondents (20 out of 39 - this question was not presented to the ACE) answered "no". Only 6 out of 39 felt that the ACE was doing an adequate job. There seemed to be general agreement among those questioned that non-tidal wetlands in Virginia are not being adequately protected. Almost everyone who chose to comment on this question felt that the ACE was not adequately funded or staffed to provide a sufficient level of protection for Virginia's non-tidal wetlands. Two respondents remarked that Section 404 does not regulate all activities that adversely affect wetlands and that exemptions weaken the program.

VIII. 404 ASSUMPTION REQUIREMENTS AND VIRGINIA'S WETLANDS PROGRAM

A. EXISTING STATE LEGISLATION

Sections 404(g)-(t) of the CWA and the regulations promulgated thereunder provide the mechanisms through which a state can assume Section 404 authority from the federal government to "... administer its own individual and general permit program for the discharge of dredged or fill material into the navigable waters (other than those 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, or mean higher high water mark on the west coast, including wetlands adjacent thereto) within its jurisdiction. ..."82 In order for a state to assume 404 it must demonstrate that it has the capability and the authority to administer a program that meets minimum requirements established by the federal government (as discussed in Section III). Among the requirements is that a state administering its own 404 program must exert regulatory authority over all the waters subject to the federal

82. 33 U.S.C. Sec. 1344(g)(1).
permitting process. In addition, a state must regulate all of the activities covered by the federal 404 program. Section 404(h)(i) of the CWA and the regulations promulgated thereunder describe the minimum requirements for a state's permitting process in order to qualify as an approvable state program. Finally, any state environmental review criteria must be at least equivalent to the 404(b)(1) guidelines if the state wishes to administer its own program.

The first obstacle that Virginia faces in terms of its ability to assume 404 is the requirement that a state must exert its regulatory authority over all of the waters subject to the federal 404 program. The federal regulatory definition of "waters of the United States" is:

"(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(2) All interstate waters including interstate wetlands.

(3) All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which would or could affect interstate or foreign commerce."
A problem arises when a comparison is made between the federal regulatory definition of a wetland promulgated under Section 404 of the CWA and Virginia's statutory definition of a wetland. Wetlands are defined in the CWA as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In Virginia's Wetlands Act, wetlands are defined as consisting of both vegetated and non-vegetated wetlands. Non-vegetated wetlands include areas contiguous to mean low water and areas that are between mean low water and mean high water that are not included in the vegetated wetland definition. Vegetated wetlands are basically areas that contain "typical" wetland species and lie "... between and contiguous to mean low water and an elevation above mean low water equal to the factor of 1.5 times the mean tide range at the site of the proposed project. ... " In other words, Virginia's wetlands definition is not sufficient because it only includes tidal wetlands. This definition excludes precisely those areas that would be regulated by the state if it were to assume the 404 permitting program.

Another potential obstacle may relate to Virginia's jurisdiction over Indian lands. State authority over Indian lands may merit special investigation. Federal regulations provide that lack of state authority over Indian lands (federal Indian reservations) is not a bar to full program

88. Under Section 404 of the CWA and the regulations promulgated under that act, the ACE and EPA have developed different wetlands definitions. See Appendix C for different definitions of wetlands used by state and federal agencies.
89. 40 CFR Sec. 232.2(r).
92. Under Virginia's approach not all the tidal wetlands are necessarily included that might be included under federal definitions. However, this may become a moot point if state non-tidal legislation is enacted addressing those areas above the state defined upper boundary of tidal wetlands.
approval. Virginia, however, contains several Indian reservations that are subject to state rather than federal jurisdiction.

At this time since Virginia has no non-tidal legislation, the state is incapable of assuming the federal 404 program because it does not regulate all of the waters that fall under the jurisdiction of the federal program. Until Virginia can meet this requirement, its status in relation to the other requirements is academic. However, if one assumes that, at some future date, Virginia enacts legislation encompassing the scope of federal 404 jurisdiction over the waters of the state, one can look at the mechanisms that Virginia has in place for protection of its tidal wetlands for the purpose of comparison with the federal requirements for an approvable state program. The current status of Virginia's proposed non-tidal wetlands protection bill does not allow the state to satisfy 404 assumption program requirements. Another obstacle raised by the requirement that states must regulate all the waters that fall under the jurisdiction of the federal program is that Virginia may lack jurisdiction over waters in certain impoundments and even in some tidal areas. The problem may exist in that the state may only claim jurisdiction over those waters over the original channels of impoundments and certain other dredged water bodies. State jurisdiction over impoundments in certain tidal areas should be carefully examined to see that there is no impediment to assumption.

Another requirement is that a state must regulate all of the activities covered by the federal 404 program. States are not prohibited from making their exemptions more stringent than the federal exemptions, but

93. 40 CFR Sec. 233.1(b).
94. 40 CFR Sec. 233.11.
96. In addition to impoundments such as Lake Gaston, Smith Mountain Lake, and others, the tidal water body of Rudee Inlet in Virginia Beach is an area where the state apparently does not claim jurisdiction except for those waters over the historic channels.
if a state exempts an activity that is not included in the federal exemptions than this state would not qualify for 404 assumption. 97

Examination of the exempted activities in Virginia's tidal wetlands legislation indicates that many activities in tidal wetlands that do not require a permit in Virginia do require a federal permit under Section 404 of the CWA. For example, Virginia's tidal wetlands protection act provides exemptions for construction of structures on pilings, non-commercial recreational activities, certain activities of conservation agencies, and emergency decrees that are intended to protect the public health. 98 Section 404(f) of the CWA does not. 99

In addition to those activities exempted under Virginia law that are not specifically covered by Section 404(f), there are other activities for which Virginia's exemptions may be too broad when compared with a similar federal exemption. For example, Virginia does not require a permit for the cultivation and harvesting of agricultural, forestry, or horticultural products. 100 Section 404(f) also exempts normal farming, silviculture, and ranching activities. However, Section 404(f) specifies that these activities must be part of an established operation in order to qualify for this exemption. Virginia does not make this distinction. Virginia also exempts construction or maintenance of aids to navigation that are authorized by governmental authority. 101 Section 404(f) provides for maintenance and emergency repair of many structures that could be considered aids to navigation. However, this exemption applies to existing structures and does not provide for construction of new structures as does Virginia's exemption. Again, Virginia's exemption may be too broad to be considered at least as stringent as the corresponding federal exemption. Another

---

97. 40 CFR Sec. 233.1(c).
101. Id.
potential problem surfaces in Virginia's "governmental activities exemption". Virginia's definition of governmental activities may be too open ended to be covered by the list of federal exemptions. Section 404(f) provides exemptions for maintenance and emergency reconstruction of transportation structures. Again, this exemption applies to existing structures, not to construction of new roads. Although some of the activities listed in Virginia's definition of governmental activities are covered by federal exemptions, creative interpretation of Virginia's definition of governmental activities could lead to a virtually limitless list of exempted activities. In conclusion, Virginia's exempted activities as listed in its tidal wetlands protection act are not stringent enough for the purpose of assuming the 404 program.

Table A in Appendix D contains a comparison of the exempt activities in Virginia's tidal wetlands act with those exempted activities under the federal 404 permit program.

Section 404(h) deals with the determination of a state's authority to issue permits under a state program. This section outlines the minimum requirements for a state's permitting program. If a state wishes to administer its own program for the discharge of dredged or fill material into state regulated waters (meaning "those waters of the United States in which the ACE suspends the issuance of Section 404 permits upon approval of a state's Section 404 permit program . . . ." 40 CFR Sec. 232.2(p)), it must have legal authority to implement each of the provisions of Section 404(h). Again, states are not precluded from imposing more stringent requirements.

Examine Virginia's current wetlands permitting process reveals that this process is largely compatible with federal 404 assumption requirements. (It must be remembered, however, that Virginia's wetlands act only covers tidal wetlands.) Section 404(h)(1)(A)(ii) states that permits

---

102. 33 U.S.C. Sec. 1344(f).
must have terms not to exceed five years. Virginia's wetlands act states that permits must not be granted without an expiration date, but this expiration date is left to the discretion of the wetlands board. This discretion could conceivably result in a permit term exceeding five years. Section 404(h)(1)(D), (F), and (H) relate to the coordination between the state and federal government in the permitting process.

Table B in Appendix D contains a comparison between the federal requirements for a state's permit program and the appropriate sections of the Virginia Code dealing with Virginia's permit program.

B. PROPOSED NON-TIDAL LEGISLATION

**Regulatory Powers** - It is clear when viewing EPA's assumption regulations that before federal authorities will consider the eligibility of a state to assume Section 404 authority, that state must have jurisdiction over all of the wetlands within its borders that fall under EPA's 404(b)(1) guidelines wetlands definition. Currently, the Commonwealth of Virginia exercises no specific authority over its non-tidal wetlands. House Bill 1037 (see Appendix E for complete text of bill), offered in the 1988 session of the Virginia legislature, could, at least in part, bring some of these non-tidal wetlands under state protection. However, the bill falls short of full jurisdiction on several grounds and

References:

105. 33 U.S.C. Sec. 1344(h)(1)(D), (F), (H).
106. 33 U.S.C. Sec. 1344(g)-(t).
107. Although approximately 75% of the state's wetlands are subject to 404 assumption, the Commonwealth of Virginia currently exercises no specific authority over this category of wetlands. The percentage was calculated from information in Ralph W. Tiner, Jr. and J. T. Finn, Status and Recent Trends of Wetlands in Five Mid-Atlantic States, U.S. Dept. of Interior; EPA Region III, (1986) at 26-27.
leaves open questions on others. The purpose of this section is to analyze the proposed state non-tidal wetlands bill with respect to its ability to enhance state authority over Section 404 wetlands within the Commonwealth.

The state's definition of non-tidal wetlands differs from the EPA's on two main points:

1. The bill uses the ACE's list of "wetlands indicators"\(^{108}\) instead of EPA's.\(^{109}\) These indicators are used to determine if there is water on a site (hydrologic conditions) that is consistent with the hydrologic conditions generally found in wetlands; and

2. the bill sets the number of parameters for specific wetlands criteria that must be satisfied for an area to be defined as a wetland to be three instead of EPA's standard of two out of three (see below for further discussion).

The ACE uses a list of wetland indicators that exclude such things as buttressing of a tree's base and the presence of nematophores (e.g. cypress knees and mangrove roots). The ACE's use of the list has not only been rejected by the EPA as incorrect, but has been a point of controversy between the two agencies for several years. The EPA feels that the ACE's definition underestimates the presence of hydrology, and therefore, the presence of wetlands.

A second point of difference is that the bill requires that all three parameters - soil, hydrology, and vegetation - must meet specific wetlands criteria before an area falls under the bill's definition of


wetlands. On the other hand, the EPA definition of wetlands requires that only two of the three parameters are required to meet the specific wetlands criteria. EPA's logic is that one parameter, hydrology, is not always obvious. Therefore, by insisting on proof of its presence, the chances of making an error or underestimating areal wetland coverage could be greatly increased. EPA's argument is based on the hypothesis that if hydric soils and vegetation were present, hydrology, even though not obvious, would also be present. The difference in the two interpretations relates to the total areas that would fall under jurisdictional powers; the state's definition would cover less of an area than EPA's definition, possibly leading to the conclusion by EPA that not all wetlands provided protection under Section 404 would be covered by the state law.

A more obvious shortcoming in the law is the lack of comprehensive geographic coverage. By restricting coverage of the bill to the coastal plain counties and cities (and not all of them are included), many Section 404 non-tidal wetlands would still not fall under the state's authority. Therefore, there is little doubt that the EPA would conclude that not all wetlands provided protection under Section 404 would be covered by the proposed state law.

Other areas of the proposed bill that may lead to problems of jurisdiction are:

The omission of isolated areas one acre or less in size by definition. As there appears to be no size limit in the EPA's guidelines, one may question whether this omission would disqualify the state from assumption.

The omission of backwater areas of all sizes. Some of the

111. Backwater areas are wetlands which form as a result of road construction.
areas were wetlands prior to road construction and almost all, even though some are manmade, are presently considered wetlands by the EPA.

The exemption of utility lines from the bill. These are normally covered by ACE general permits. Exempting them removes these areas from state jurisdiction.

Compliance and Consistency - Although the Department of Conservation and Historic Resources is granted jurisdictional powers in the bill, it may, according to Section 10-262.8, delegate the administering of the powers and duties provided it to "any county, city, or town that complies with certification requirements established by the Department." No direction as to where the assumed powers and duties should go within the administration of those cities, counties, or towns has been outlined. It is possible that some localities will place them in environmental, some in engineering, and some in health oriented departments. The outcome could be one of different entities required to enforce the same law. Because of different procedures within departments, proof of compliance and consistency could become difficult. Furthermore, the bill gives, at least where silviculture is practiced in non-tidal wetlands, a regulatory role to the Department of Forestry. At no place in the bill is the Department of Forestry held responsible for notifying the lead agency for enforcement of the non-tidal bill. In fact, the enforcement processes for violations of the wetlands protection laws stemming from silviculture practices are, according to Section 10-83.7 through 10-83.10, carried out by the Department of Forestry. Therefore, it would be possible that legal action could take place within the lead agency's jurisdictional area without the agency's knowledge, approval, or consent.

Public Review - At no point in the bill is the public review process invoked. Public hearings at the request of an applicant or in response to

113. Id. at Sec. 10-262.6-4.
specific situations can be called at the discretion of the director of the lead agency (Sec. 10-262.3-7). However, this does not open review of all proposed activities in non-tidal wetlands to the public. If it is the intent of the state to invoke the Administrative Process Act, which will permit public review of all applications and supplemental materials, or to allow public review without the Administrative Process Act, it should be so stated in the bill. Public review is an important part of assuming 404 authority and without it, any attempt at assumption would fail.

**Other Considerations**

State projects need only to "demonstrate consistency."\(^{114}\) This could mean that state projects are exempt from the permit process. What powers the lead agency would have over state projects is unclear.

There appears to be no capability in the bill for regulatory personnel to investigate possible unpermitted wetland activities if the landowner does not give his consent.\(^{115}\) This may leave a major hole in the enforcement program.

Penalties and enforcement.\(^{116}\) There are two routes enforcement may take. First, with the consent of the owner, there is an informal process. It is limited to fines of $1,000/day/violation, but has no restriction or restoration potential. This route may prove to be a very large loophole. The second route is a more rigorous, time proven method. The second route would most likely meet EPA's assumption guidelines, however, the first would not, leaving the state vulnerable to disqualification from assumption.

---

114. Id. at Sec. 10-262.5f.
115. Id. at Sec. 10-262.10.
116. Id. at Sec. 10-262.13.
C. Funding

Under the proposed non-tidal wetlands bill, the Department of Conservation and Historic Resources requested a funding level of $570,000 for eleven full-time employees with an additional $260,000 to establish a geographic information mapping system for operating the state's non-tidal wetlands program. However, this figure appears to be unrealistic in light of what other states and federal agencies expend on non-tidal regulation. Based on information collected from other states and federal agencies, the cost of operating a 404 assumption program would be approximately $2,000,000 annually.

Federal funding for state assumption of 404 authority is possible under federal statute. However, it is currently unavailable. Therefore, Virginia must expend state monies for operation of a 404 assumption program. Without federal monies, Virginia's options for funding are general state appropriations and user fees.

IX. FINDINGS

As a result of analysis of the federal statute, state experiences with 404 assumption, wetlands protection laws in the Commonwealth of Virginia, and questionnaire results, the following findings have been made:

- Non-tidal wetlands in Virginia are not adequately protected by either state or federal programs.
- Virginia currently does not have specific statutory and regulatory authority over non-tidal wetlands, which comprise approximately 75% of the state's wetlands. Thirty-six percent of Virginia's non-tidal wetlands are located outside of the coastal plain.

117. 33 U.S.C. Sec. 1285(g)(2).
At the present time only 20% of the total wetlands permitting actions within the Commonwealth occur in non-tidal wetlands. Permitting activities in this category of wetlands will increase.

Virginia's proposed non-tidal wetlands bill, although addressing 404 assumption, fails to satisfy 404 assumption criteria.

Regardless of whether the Commonwealth enacts legislation granting it authority over non-tidal wetlands, it still may not have the authority over all waters and wetlands of the state necessary for 404 assumption. For example, there are questions concerning Virginia's authority over wetlands on Indian reservations and subaqueous bottoms in man-made bodies of water such as Rudee Inlet and freshwater impoundments.

Virginia would incur increased costs in implementing and operating a 404 assumption program. Based on information collected from other states and federal agencies, the implementation and operation of a 404 assumption program would cost approximately $2,000,000 annually.

Regardless of whether the state seeks 404 assumption, the cost of operating an effective non-tidal wetlands program would be approximately $2,000,000 annually.

Virginia has the potential for better control over the management of its own resources by assuming 404 authority.
Virginia would not have independent authority to control its wetlands since the federal government would, under the 404 assumption program and under federal authority over navigable waters and adjacent wetlands, retain a veto power.

In an eleven year existence, the 404 assumption program has at the present time only one state that has sought and successfully satisfied federal criteria for state assumption of federal 404 authority.

Inherent in the federal 404 assumption program is confusion among federal agencies over the definitions of wetlands, conflict over the status of federal 404(b)(1) guidelines, and ambiguity between state and federal authority over exemptions pertaining to federal projects in navigable waters.

Non-tidal wetlands management in the Commonwealth may be diminished by a reduced federal involvement in decision making on proposed non-tidal wetlands projects.

Federal monies are currently unavailable to states to operate a 404 assumption program. However, federal funding for state assumption of 404 authority is possible under federal statute.
X. POTENTIAL ADVANTAGES, POTENTIAL DISADVANTAGES, AND UNCERTAINTIES

A. POTENTIAL ADVANTAGES OF 404 ASSUMPTION

○ Upon state assumption of Section 404 authority, a consistency clause would require federal projects undertaken within Virginia's boundaries, whether on federal property or not, satisfy provisions of the state's environmental statutes concerning 404 wetlands. Currently, only wetlands that are geographically located within Virginia's Coastal Zone Management Area (CZMA) are subject to a consistency clause. Therefore, assumption of Section 404 authority would extend the consistency concept beyond the boundaries of the state's CZMA.

○ Virginia by assuming 404 authority, may be better able to manage and protect its non-tidal resources. There is widespread belief that current regulatory efforts of the ACE fall short of the intent of Section 404 of the CWA. As a result, Virginia's non-tidal wetlands are not receiving the full measure of protection offered by Section 404.

○ Assumption could eliminate the necessity of a property owner obtaining permits from both state and federal agencies for activities affecting non-tidal wetlands. By the state assuming 404 jurisdictional authority in these areas, a federal permit will no longer be necessary. However, both state and federal permits will still be required for projects proposed in navigable waterways and in wetlands remaining under federal jurisdiction.

○ The Commonwealth's citizens may be better served by a state-oriented permit program attuned to local conditions rather than a federal program tailored to serve broad national interests.
The public review process associated with applications for projects that may impact wetlands could be enhanced. Few public hearings have been called by the ACE. A state assumption program may provide more opportunity for public information and public involvement.

B. POTENTIAL DISADVANTAGES OF 404 ASSUMPTION

- There would be a decreased federal presence in the regulation of Virginia's non-tidal wetlands. This is significant in that no existing state environmental agency has the cadre of environmental lawyers, engineers, and field personnel needed to carry out the regulatory aspects of the state's expanded responsibilities.

- Although all wetlands in Virginia fall under Section 404 of the CWA, the state would be able to assume authority only over non-tidal wetlands not adjacent to navigable waters as stated in 404(g) of the CWA. The 404 assumption program would allow the state to assume authority over approximately 75% of its wetlands. The 75% of the state's wetlands subject to 404 assumption authority are not presently the focus of major development pressures. Therefore, only 20% of the total wetlands permitting actions within the Commonwealth occur in these non-tidal wetlands. Permitting activities in this category of wetlands will, however, increase with time.

- Virginia would not have independent authority to control its wetlands since the federal government would, under the 404 assumption program and under federal authority over navigable waters and adjacent wetlands, retain a veto power.
New legislation is necessary for Virginia to comply with the "adequate authority" clause of 404(g) and, even when enacted, there are questions regarding definitions, jurisdictions, and the role 404(b)(1) guidelines play.

The state would incur increased costs associated with assuming 404 authority.

In assuming 404 authority the Commonwealth will find itself involved with federal agencies that have been unable to reach agreement on important issues relative to wetlands management. For example, the ACE, FWS, and EPA have been unable to adopt a definition of wetlands that is acceptable to all three agencies.

C. UNCERTAINTIES ASSOCIATED WITH 404 ASSUMPTION

It is difficult to estimate the cost involved in Virginia establishing and carrying out a 404 assumption program. If through oversight or inexperience the state program is underfunded, the level of non-tidal protection offered under a state 404 assumption program may decline.

It is not known if Virginia's governmental structure is capable of replacing the well-rounded federal regulatory agency structure that presently exists, i.e. will the state have recourse to similar legal, engineering, and regulatory staff that is available to the federal government? For example, the ACE has a contingent of full-time staff attorneys. However, the usual practice in Virginia is for an Assistant Attorney General to be assigned to an agency on a part-time basis.
It is not known what governmental structure the state would use to administer a 404 assumption program. There are three general alternatives: centralized, decentralized, and a hybrid of the two. A centralized structure could use either an existing agency or a newly created agency. A decentralized structure could be systematic in that the state could require the same approach to assumption in all localities. Or, a decentralized structure could be random leaving the assumption structure to be determined by local authorities. (A random approach may not satisfy the criteria a state must meet to have an approvable assumption program.) A hybrid of the centralized and decentralized structures could be to the relationship found between local wetlands boards and the VMRC. It may take the form of an old or a newly created agency. It may also make use of a systematic or random structure. Each of these alternatives has its own uncertainties and difficulties.

If the state assigns 404 assumption authority to a state agency other than the VMRC, projects involving both tidal and non-tidal wetlands may require a permit from each agency. Furthermore, a question may also arise over where the VMRC's jurisdiction stops and the other agency's jurisdiction begins.

XI. CONCLUSIONS AND RECOMMENDATIONS

It is not currently advantageous for the Commonwealth of Virginia to seek 404 assumption. However, it is imperative that the state should implement an effective non-tidal wetlands program. At present, non-tidal wetlands, comprising 75% of the total wetlands in the state, are ineffectively managed by either state or federal programs. Although these wetlands are subject to relatively little developmental pressures at this time, these pressures will increase. State enactment of a non-tidal wetlands program offers an opportunity to avoid the situation that has
occurred in the past with regard to wetlands management, i.e. before effective state legislation was enacted across the country, it has been estimated that approximately 50% of nation's wetlands were lost to development.  

The best way for the state to control its non-tidal wetlands resources is to develop its own comprehensive state-wide program. The cost of operating an effective non-tidal wetlands program is warranted: 1) by the constitutional responsibility to manage the natural resources of the state in the best interests of its citizens; 2) by the benefits realized by the citizens of the state through the protection of non-tidal wetlands resources (non-tidal wetlands play an important role in water quality, flood control, erosion and sedimentation control, wildlife habitat, etc.); and 3) by the difficulty the state and its citizens would incur in attempting to supplement or coordinate a limited non-tidal wetlands management effort with existing federal programs;  

As a result of the analysis of the federal statutes, states' experiences with 404 assumption, wetlands protection laws in the Commonwealth of Virginia, questionnaire results, and the study findings, the following recommendations are made:  

o At this time, we do not recommend that the Commonwealth of Virginia pursue 404 assumption since: 1) the Commonwealth does not have adequate authority over its wetlands to assume 404; 2) certain subsections of the federal 404 assumption program create ambiguities in the federal and state relationship; and 3) there are inconsistencies among federal agencies over the definition of wetlands and the role of the 404(b)(1) guidelines.

It is incumbent upon the state, since 75% of its wetlands resources are not now being effectively managed or protected, to develop its own legislatively based, state-wide management and protection program for all non-tidal wetlands.

The Commonwealth should address questions concerning Virginia's authority over wetlands on Indian reservations and subaqueous bottoms in man-made bodies of water such as Rudee Inlet and freshwater impoundments.

A hybrid governmental structure that is systematic and analogous to that currently used by the VMRC and local wetlands boards is recommended for state implementation of non-tidal wetlands regardless of whether the state seeks 404 assumption.

A state-wide non-tidal wetlands program, whether or not the state seeks 404 assumption, should be funded at a level approximating what other states have found necessary for implementation and operation of assumption programs.

In recognition of agency history, experience and effectiveness the VMRC is recommended as the lead agency.

The state should assign to its lead agency full-time legal, engineering, and regulatory personnel.

The 401 certification program should be examined as a supporting element to either a state administered non-tidal wetlands program or a federally approved state 404 assumption program. The 401 certification program was not intended to be a wetlands protection mechanism and use of the program as a supporting element in the management
and protection of wetlands will require significant changes in the way the program is currently staffed and administered. Over reliance on the 401 program as a wetlands protection mechanism may lead to legal challenges.

- Furthermore, the Commonwealth's statutory definition of "waters of the state" should be amended to mention wetlands if 401 is to be used as a mechanism to offer wetlands protection and management.

- Other less comprehensive and less direct supporting mechanisms are available to aid in wetlands protection and management such as the Chesapeake Bay Preservation Act at the state level and the Safe Drinking Water Act at the federal level.

- A public education program for all citizens of the Commonwealth should precede the implementation of a non-tidal wetlands program.

- The federal government must resolve the ambiguities in the 404 assumption program, i.e. develop a definition of wetlands acceptable to all federal agencies, clarify the role of the 404(b)(1) guidelines, and resolve the difference between subsections 404(r) and (t) of the CWA.

- The federal government should broaden 404 assumption to cover more than non-tidal wetlands. The states have a proven history in the management of tidal wetlands and little or no history in the management of non-tidal wetlands. An amendment to 404 separating wetlands from navigable waters should be proposed; states would have authority over tidal and non-tidal wetlands and the federal government would retain authority over navigable waters.
The federal government should seek appropriation or reallocation of funds to provide at least implementation monies for state 404 assumption programs. Such funding coupled with the potential of a state controlling tidal and non-tidal wetlands would make assumption more attractive to states.
XII. APPENDICES
## APPENDIX A

### ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>Army Corps of Engineers</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CBF</td>
<td>Chesapeake Bay Foundation</td>
</tr>
<tr>
<td>COE</td>
<td>Council on the Environment</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>CZMA</td>
<td>Coastal Zone Management Area</td>
</tr>
<tr>
<td>DCR</td>
<td>Department of Commerce and Resources</td>
</tr>
<tr>
<td>EDF</td>
<td>Environmental Defense Fund</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>FWPCA</td>
<td>Federal Water Pollution Control Act</td>
</tr>
<tr>
<td>FWS</td>
<td>Fish and Wildlife Service</td>
</tr>
<tr>
<td>MOA</td>
<td>Memorandum of Agreement</td>
</tr>
<tr>
<td>NMFS</td>
<td>National Marine Fisheries Service</td>
</tr>
<tr>
<td>NRDC v. Callaway</td>
<td>Natural Resources Defense Council v. Callaway</td>
</tr>
<tr>
<td>SWCB</td>
<td>State Water Control Board</td>
</tr>
<tr>
<td>VIMS</td>
<td>Virginia Institute of Marine Science</td>
</tr>
<tr>
<td>VMRC</td>
<td>Virginia Marine Resources Commission</td>
</tr>
</tbody>
</table>
APPENDIX B

QUESTIONNAIRE RESULTS

A questionnaire was developed to help identify the advantages and disadvantages of Virginia assuming Section 404 authority. A total of 44 questionnaires were prepared and mailed to different target groups: Virginia state agencies, Virginia local wetlands boards, environmental groups, and federal government agencies. Several respondents chose to respond as private citizens rather than on behalf of the agency or group they represent. Questionnaires were also mailed to other states who indicated an interest in 404 assumption. The responses to those questionnaires were summarized in Section V, A Summary of States' Experiences With 404 Program Assumption. Of the 44 questionnaires mailed, 40 responses were received.

1. Do you or your staff have any involvement with non-tidal wetlands? If so, what is the nature of this involvement.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NO RESPONSE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>9</td>
<td>15</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>15</td>
<td>2</td>
<td>40</td>
</tr>
</tbody>
</table>

Nature of involvement:

Local Wetlands Boards

Local wetlands boards responding "yes" to this question indicated an indirect involvement with non-tidal wetlands. Many explained that their involvement consists of notifying the ACE if any proposed activity has a possibility of impacting non-tidal wetlands.

Virginia State Agencies

State agencies participating in the questionnaire indicated involvement with non-tidal wetlands in a number of areas. The State Water Control Board provides 401 certification for ACE issued 404 permits. The Department of Forestry is "currently writing BMP's for forested wetlands harvesting and silviculture." The Virginia Department of transportation, "secures all necessary environmental permits including Section 401, Section 404, Section 10, and WMRC permits for all applicable state and federal funded projects which may involve non-tidal wetlands." The Department of Conservation and Historic Resources, Division of Soil and Water Conservation, is "presently
working on legislation which has been introduced to protect non-tidal wetlands." The Department of Conservation and Historic Resources "will administer the state's new non-tidal wetland program." The Department of Game and Inland Fisheries "reviews projects submitted to it by the Corps of Engineers and the Marine Resources Commission." Their review of a project for impacts on fish and wildlife resources involves "written comments and some field review." The VMRC sees all applications through the current joint permitting process.

Federal Agencies

The ACE is responsible for "regulation of dredge and fill material" in non-tidal wetlands. The U.S. Fish and Wildlife Service has been involved in non-tidal wetland "identification, delineation, and assessment." They are also involved in the review of applications submitted to the ACE for Section 404 regulated activities.

Private Environmental Groups

The CBF has "reviewed permit applications for non-tidal wetlands under ACE jurisdiction, initiated state and private work to draft non-tidal wetlands legislation, and lobbied 1988 General Assembly to get the non-tidal bill through the General Assembly." The EDF has "assisted the Chesapeake Bay Foundation in gathering information upon which their non-tidal legislation was based."

Private Citizens

One of the private citizens questioned belonged to an agency whose duties include wetland delineation and assessment. The other respondent's involvement in non-tidal wetland issues has been on "policy, program and project specific levels."

2. Have you or your staff had any experience with non-tidal wetland delineation?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>4</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>27</td>
<td>40</td>
</tr>
</tbody>
</table>
3. What advantages/disadvantages, if any would assumption of 404 cause your agency?

Local Wetlands Boards

No Response: 2

Four of the respondents said that there would be no advantages or disadvantages for their agencies if the state assumed the 404 program. The main concern that surfaced in the answers to this question was the perceived inability to cope with the increased workload that would result from assumption of 404. Of the 20 respondents who listed their opinions regarding the advantages and disadvantages of 404 assumption, 15 mentioned the increased workload, 9 expressed a need for additional staff, 8 expressed a need for additional training because of a lack of technical expertise in their department, and 5 mentioned the lack of funds that would make assumption of the program and its responsibilities difficult. One respondent felt that state assumption of 404 could result in enforcement problems.

Among the advantages, respondents felt that 404 assumption would speed up the development and permitting process. One respondent wrote, "We see it as an advantage in time and expense for local citizens and developers to have a city department that can assist them in obtaining both tidal and non-tidal permits." Several respondents perceived local management of a local resource, and placing the responsibility of protection of all types of wetlands under one local authority as an advantage. One respondent wrote, "determining and maintaining environmental quality could help us protect tidal wetlands by regulating adjacent or tributary wetlands." Another felt that not having to depend upon an understaffed ACE for enforcement and fieldwork would be an advantage. One respondent was of the opinion that if the program was run by a local body, "the public would be better informed and development decisions, in their early phases, could be made consistent with the objective of protection of wetlands." Finally, one respondent felt that increased jurisdictional power for the localities would outweigh any disadvantages accompanying the program.

State Agencies

State agencies were also concerned about the increased workload that state assumption of the 404 program would cause them. Respondents listed increased staff time, increased paperwork, the need for additional manpower, and a need for expertise that is presently lacking in their agencies as disadvantages that would accompany 404 assumption. One respondent felt that, "anything that would jeopardize the existing general permit program would be a detriment to the citizens of the Commonwealth."
One respondent felt that direct state control and enforcement of dredge and fill projects would be an advantage. It was also mentioned that if 404 was assumed, the state could eliminate the 401 certification program - this was perceived as an advantage. One respondent felt that the placement of the entire program within one agency would be "more efficient for the agency and landowners."

**Federal Agencies**

One federal agency respondent felt that their workload would probably increase because, "Congressionally mandated responsibilities under the Fish and Wildlife Coordination Act and the Endangered Species Act would require close coordination by the Fish and Wildlife Service and the state assumption agency."

A decreased workload for the Norfolk District Corps was listed as an advantage.

**Private Environmental Groups**

One of the private environmental group respondents felt that 404 assumption might restrict public notice dispersal and therefore limit their involvement. Another respondent felt that if local assumption were allowed under state assumption, this would lead to an "uneven application of the program."

One respondent felt that if jurisdiction were extended to activities that alter wetlands, 404 assumption would improve the protection of non-tidal wetlands. Another felt that their group was probably in a better position to "influence regulations, policies, and implementation" and on the state level, state assumption of the 404 program could therefore be an advantage.

**Private Citizens**

One respondent felt that, politically, there may be some disadvantages to state assumption of the 404 program. This respondent wrote:

> The permit approvals of environmentally undesirable projects could jeopardize the state's standing in the coastal program. The political sensitivity of this conflict would be even greater with the ultimate 404 decision resting with the state rather than the federal government.

The other respondent felt that "clearer identification of local-state-federal relationships with decision impacts directly attributable to responsible parties," would be an advantage.
4a. Do you believe Virginia's non-tidal wetlands should be protected?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>0</td>
<td>1</td>
<td>40</td>
</tr>
</tbody>
</table>

OTHER:

One federal agency respondent answered that, "some may need protection, others may not. Perhaps it is better to say that Virginia's wetlands should be regulated, and this should extend beyond Chesapeake Bay to other inland wetlands. Criteria for regulating Chesapeake Bay wetlands should probably reflect tougher standards (i.e. more protection oriented)."

4b. Do you believe all non-tidal wetlands should be protected or only those so geographically located as to have a role in protecting the Chesapeake Bay?

<table>
<thead>
<tr>
<th></th>
<th>ALL</th>
<th>GEO,LOC.</th>
<th>NO, RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>40</td>
</tr>
</tbody>
</table>

OTHER:

Local Wetlands Boards

One respondent distinguished between regulation and protection, and suggested that all wetlands should be regulated and only "those particularly sensitive or important should be protected." One respondent answered with a qualified yes, agreeing that protection of non-tidal wetlands is important and suggesting that since the ACE is already regulating non-tidal wetlands, Virginia should "enter the regulatory arena on a small scale. This would allow for training, public education, and expansion of jurisdiction at a later date given a proven organizational structure." Another respondent said that protection is necessary but noted a need for a "balance between protection and development." One respondent agreed that "some" non-tidal wetlands should be preserved "especially those geographically located as to have a role in protecting the Chesapeake Bay," and felt "a broader range of non-tidal wetlands should be defined as worthy of preserving other than
those directly related to the Chesapeake Bay." One respondent answered that "all wetlands should be protected and only those geographically located as to have a role in protecting the Chesapeake Bay should be regulated." One respondent felt that wetlands should be protected "depending upon their value for habitat, flood control, sedimentation, etc." Protection of all non-tidal wetlands was "too broad a statement."

Federal Agencies

See "other" response in question 4a.

5. If you answered "yes" to question number 4, do you believe the state should be protecting its own non-tidal wetlands? Or, is it a job best left to the federal government? Or, should it be a joint federal and state responsibility?

<table>
<thead>
<tr>
<th></th>
<th>STATE</th>
<th>FEDERAL</th>
<th>JOINT</th>
<th>NO_RESPONSE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>1</td>
<td>0</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>1</td>
<td>16</td>
<td>4</td>
<td>40</td>
</tr>
</tbody>
</table>

6. Should certain blanket exemptions be included in a non-tidal wetlands law for groups of activities such as agriculture, silviculture, highways, governmental activities, etc.? If so, what activities should be exempt?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NO_RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>7</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>23</td>
<td>4</td>
<td>1</td>
<td>40</td>
</tr>
</tbody>
</table>

OTHER:

One local wetland board wrote that rather than the type of activity, "the size and location of a particular project has a greater bearing on the amount of regulation required"
Comments:

Local Wetlands Boards

Two of the seven respondents answering yes to this question suggested using the same exemption rationale employed in tidal wetlands. However, one of these respondents felt that governmental activities should not be exempt. Two respondents felt that governmental activities should be exempt. One of these respondents felt that only governmental activities should be exempt and the other felt that possibly agriculture should be exempt as well. Three respondents answering yes to this question did not specify which activities they thought should be exempt.

Virginia State Agencies

Three of the four respondents who answered yes to this question felt that agriculture and silviculture activities should be exempt, provided that they follow approved BMP's. The fourth respondent felt that exemptions should be included in non-tidal wetlands similar to those outlined in the ACE's 404 regulations. One of the respondents who answered no to this question said that although there are "certain activities that do not adversely affect the function of wetlands, blanket exemptions do not allow for monitoring of appropriate behavior in wetlands."

Private Environmental Groups

One of these respondents wrote that "blanket exemptions, if used, should be very narrowly constructed for those activities that have little/no cumulative impact on wetlands function and value or those that do not convert wetlands, provided that they follow specific guidelines for the use of the wetlands."

Private Citizens

The respondent answering yes to this question did not give specific recommendations for which activities should be exempt and only suggested that "some categories of activities may be exempt in certain types of wetlands given sufficient BMP permit requirements. Complete blanket exemptions for activities in all wetlands would require more careful study."
7. Do you think that a public education program is necessary or desirable for state assumption of non-tidal wetlands protection?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>25</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>2</td>
<td>40</td>
</tr>
</tbody>
</table>

Comments:

Most respondents felt that the level of success of non-tidal wetlands protection would be directly related to the public education effort. Many indicated that they thought a strong public education program would increase the support for a non-tidal wetlands protection program. One respondent wrote, "I think that it is reflected in the current focus on the Chesapeake Bay that the public will support those issues that are important to them." Others felt that public education would "reduce the burden on the regulatory process, such as enforcement."

8. Should Virginia set up a centralized (state control) or a decentralized (local control) infrastructure or a combination of both to run its non-tidal protection program?

<table>
<thead>
<tr>
<th></th>
<th>STATE</th>
<th>LOCAL</th>
<th>COMB.</th>
<th>NO. RESP.</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>6</td>
<td>2</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>2</td>
<td>22</td>
<td>4</td>
<td>2</td>
<td>40</td>
</tr>
</tbody>
</table>

OTHER:

"Centralized in the beginning, with the authority being carefully delegated in the future as local knowledge and resources to run the program become acceptable."

"Locality should have the option similar to tidal wetlands."
9a. If the state were to assume protection of 404 wetlands, which state agency should be in charge of the program?

<table>
<thead>
<tr>
<th>Local Wetlands Boards</th>
<th>VMRC</th>
<th>VIMS</th>
<th>DCHR</th>
<th>NO_RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>26</td>
</tr>
</tbody>
</table>

Virginia State Agencies

<table>
<thead>
<tr>
<th>Virginia State Agencies</th>
<th>VMRC</th>
<th>VIMS</th>
<th>DCHR</th>
<th>NO_RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia State Agencies</td>
<td>11</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

OTHER:

Local Wetlands Boards

One of the five respondents in the "other" category said that the COE should be in charge of the program. Another said that the Department of Forestry should be in charge. One felt that either the Department of Forestry or the Division of Soil and Water Conservation should be in charge. The fourth said that "either VMRC or the Division of Soil and Water. State Forestry might also be of some assistance, definitely not the SWCB." The fifth respondent felt that this would depend upon whether authority is shared with the localities. He said that, "If local wetlands boards were to assume this authority, then VMRC may be the appropriate state agency because of coordination in terms of application processing that currently exists between local wetlands boards and the VMRC. If the local boards are not involved, or if the localities in general would not be involved, then the Department of Conservation and Historic Resources should be in charge of the program, since the VMRC would be out of place regulating non-tidal wetlands in areas that do not have an apparent effect upon the environment."

Virginia State Agencies

One of the respondents felt that the Department of Game and Inland Fisheries or the VMRC should administer the program. The second respondent felt that the VMRC should be in charge of the program within Tidewater and the SWCB should be in charge outside Tidewater. The third respondent said that "the respective agency closest to the commodity involved" should be in charge, "i.e., silviculture (Department of Forestry), agriculture (Department of Conservation and Historic Resources and the Department of Agriculture and Consumer Services)."
9b. Which state agency should be in charge of non-tidal wetlands protection program regardless of what the state role may be? Please specify the reasons for your choice.

Federal Agencies

Of the two federal agencies questioned, one did not respond to this question. The second felt that the SWCB should be in charge of the program because, "they already manage the 401 CWA program and have regional offices around the state; they would however have to increase their staff and biological expertise substantially."

Private Environmental Groups

One of the respondents from the private environmental groups felt that the Department of Conservation and Historic Resources, Division of Soil and Water Conservation should administer the program because "1.) the state-wide recognition of the department and division would facilitate administration since they already deal with major developers through the districts, 2.) the division already implements related laws, 3.) regional offices provide a regional approach to protection, and 4.) there is experience within the agency with permitting authority."

Private Citizens

One respondent did not specify which agency should be in charge of the program. The other respondent felt that "a consolidated Department of Natural Resources with components gathered from the State Water Control Board, Game and Inland Fisheries Commission, Marine Resources Commission, etc." should be in charge of the program.

*NOTE: Questions 10-18 were not asked on all questionnaires.*

10. Do you believe that the ACE is doing an adequate job of protecting non-tidal wetlands in Virginia under Section 404 of the CWA?

Note: The ACE was not asked this question.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NO RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>4</td>
<td>12</td>
<td>10</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>20</td>
<td>12</td>
<td>1</td>
<td>39</td>
</tr>
</tbody>
</table>
Other:

"The Corps is working within the legislative framework that has been defined for them. The ability of them to respond to all non-tidal wetland issues is limited by their resources. Non-tidal wetlands are not being adequately protected in Virginia but it is not because of the Corps."

Comments:

There seems to be general agreement among those questioned that non-tidal wetlands in Virginia are not being adequately protected. Although the responses to this question indicate dissatisfaction in the level of protection provided by the ACE, many respondents seemed to agree with the statement given above. Four of the respondents answering yes to this question felt that, given their limitations, the ACE was doing an adequate job of protecting non-tidal wetlands; six of the respondents answering no to this question felt that the ACE was not doing an adequate job because of their limitations. Almost everyone who chose to comment on this question felt that the ACE was not funded or staffed adequately to provide a sufficient level of protection for Virginia's non-tidal wetlands. Two respondents remarked that 404 does not regulate all activities that adversely affect wetlands and that exemptions weaken the program.

11. In your opinion, are there alternatives to 404 assumption which would provide Virginia with a better non-tidal wetland protection system? If so, what are they?

Note: This question was not asked on the questionnaires submitted to the federal agencies and one of the private citizen questionnaires.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NO-RESPONSE</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Wetlands Boards</td>
<td>4</td>
<td>7</td>
<td>14</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Virginia State Agencies</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Private Environmental Groups</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Private Citizens</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>10</td>
<td>18</td>
<td>1</td>
<td>37</td>
</tr>
</tbody>
</table>

OTHER:

One respondent felt that "Virginia should address its own protection needs whether or not the federal government feels the program meets assumption criteria. The federal government may find the local control with state
oversight is not sufficiently protective, especially if local wetlands boards continue to have little or no staff support and the state continues not to adequately review their decisions. The alternative to 404 assumption is for Virginia to do a better job at regulating its tidal wetlands, design a non-tidal program that meshes with the wetlands boards structure, and commit the money and attention where needed for thorough administration.

Comments:

Local Wetlands Boards

One of the respondents answering yes to this question suggested a "state non-tidal law coupled with 404 requirements in a joint permit approach." Another said, "the state bill pertaining non-tidal wetlands that recently passed the House contains legislation that is better equipped to protect non-tidal wetlands." The third said that "perhaps a state regulation or law protecting non-tidal areas" would provide a better protection system for Virginia. The fourth respondent wrote that a better protection system could be provided by "improving cooperation between localities, the state, and the Corps, improving public awareness and education, and integrating wetland use planning, local zoning ordinances, subdivision regulations and other means of land use controls."

Virginia State Agencies

The respondent answering yes to this question wrote that "the Chesapeake Bay Preservation Act provides an excellent vehicle if criteria are established to include non-tidal wetlands within the preservation areas."

Private Environmental Groups

One respondent said that there are "ways in which the state could improve the 404 process without creating a new program of assuming 404. Basically, the state could deny 401 certification for Nationwide 26, which would then require that the Corps process an individual permit for those activities which would normally fall under this nationwide. However, this still doesn't address activities that are unregulated or exempted." The other respondent felt that "this question implies that 404 assumption is necessary to have better non-tidal wetlands protection. A number of states have non-tidal wetlands programs without 404 assumption."

Private Citizens

The respondent answering yes to this question did not specify alternatives for providing better non-tidal wetlands protection.
12. Who do you believe would support, and who would oppose, state assumption of non-tidal wetlands?

Note: This question was asked on the questionnaires submitted to the federal agencies, the private environmental groups, and one of the private citizens.

Federal Agencies

One respondent felt that conservation organizations would support assumption while the other said that environmental groups may oppose state assumption because they "generally think that the federal government will be less likely to be swayed by economic development interests."

Private Environmental Groups

The respondents from private environmental groups felt that environmental organizations would support state assumption although they "may not agree on specifics of the program." One respondent wrote that homebuilders, forestry interests, and agricultural interests would oppose state assumption; "the last two groups have agreed that the concept is good, but feel that they are not part of the problem and therefore shouldn't be regulated." Another respondent wrote that opposition would come from "1.) any development interest, forestry interests, or agricultural interests; 2.) many large industries who, as a matter of principle, oppose any regulatory programs or have lands which may be affected; 3.) local governments of communities with low lying area (because their growth may be restricted or because some program administration may fall to them); and 4.) local governments who oppose more state control over land use."

Private Citizens

This respondent felt that support or opposition to state assumption would depend upon how the program was perceived. "If the program is perceived as a more streamlined version of the current system, those wishing rapid decisions, regardless of the outcome, would support state assumption. Other supporters (e.g. environmental groups, watermen) and opponents (e.g. marine construction, homebuilders) would respond to state assumption as they currently do to the existing program. If the assumption is perceived as a strengthening of environmental regulation the "normal" supporters and opponents would strengthen their respective positions. On the other hand if assumption is perceived as a relaxation of regulation, the supporters and opponents would probably reverse sides."
Note: Question 13 was asked on the questionnaires submitted to the private environmental groups, one of the federal agencies, and one of the private citizens.

13. Do you believe that Virginia can do an equal or better job of protecting non-tidal wetlands than the ACE is now doing?

Federal Agencies

This respondent said that, currently, Virginia is not capable of doing an equal or better job than the ACE because "Virginia has no law to protect non-tidal wetlands, nor trained staff or a proper management agency."

Private Environmental Groups

Both respondents felt that it was possible for Virginia to provide protection for their non-tidal wetlands given the appropriate program and adequate funding. One respondent wrote, "A strong law with specific standards will be necessary to insure that this occurs."

Private Citizens

This respondent wrote, "The state has the potential of doing a better job if it has the resolve to devote the proper resources to the program. The evaporation of the 401 staff of the SWCB and the legislative fiat concerning the sand dune regulations in Sandbridge do not give encouraging signals however."

Note: Question 14 was asked on the questionnaires submitted to the private environmental groups, the federal agencies, and one of the private citizens.

14. Do you believe Virginia can do an equal or better job than the federal government in protecting non-tidal wetlands?

Federal Agencies

One respondent felt that Virginia probably could do a better job if they are willing to devote the necessary resources to a non-tidal wetlands protection program. The other respondent answered as he did in question 13 - that Virginia was not currently capable of providing better non-tidal protection.
Private Environmental Groups

One respondent replied that Virginia could probably do an equal or better job than the federal government of protecting non-tidal wetlands. The other respondent felt that although the Federal government "is probably better able to regulate activities of national importance (for example, migratory bird habitat) because of their national flavor," it would be possible for Virginia to provide better non-tidal wetland protection given an appropriate program and adequate funding.

Private Citizens

See question 13.

NOTE: Questions 15-17 were asked on both of the federal agency questionnaires, both of the private citizen questionnaires, and one of the Virginia state agency questionnaires.

15. Could you provide an estimate of the number of non-tidal wetlands permits that might be handled annually if Virginia assumed 404 authority?

Virginia State Agencies

Answers to this question were quite variable. This respondent estimated 15-20 in Tidewater and another 5-10 outside of Tidewater.

Federal Agencies

These respondents did not provide an estimate for the number of non-tidal permits that might be handled annually.

Private Citizens

One respondent estimated an initial permit load of 480-720 permit actions per year. The other respondent estimated 250 permits annually based on the "Corps estimate that they reviewed 41 permits last year and the Office of Technology Assessment's assertion that the Corps only reviews one sixth of the total non-tidal activities which actually occur."
16. Do you know the number of acres of non-tidal wetlands in Virginia?

Virginia State Agencies

This respondent did not give an estimate of non-tidal wetlands in Virginia.

Federal Agencies

Both respondents referred to Tiner '87 who estimated 756,700 acres of inland vegetated wetlands and 55,300 acres of freshwater ponds.

Private Citizens

One respondent referred to the Tiner estimate of 756,700 acres of inland vegetated wetlands and 55,300 acres of freshwater ponds. The other respondent provided an estimate of 673,200 acres based on the calculation given below:

FWS Palustrine - (VIMS Tidal - FWS Estuarine Emergent) = Non-tidal Wetlands

FWS Palustrine = 752,742 acres
VIMS Tidal = 215,00 acres
FWS Estuarine Emergent = 135,450 acres

17. Could you provide an estimate of the number of employees needed to staff a non-tidal wetlands program if Virginia assumed 404 authority?

Virginia State Agencies

This respondent estimated 8 professional and 4 clerical statewide with "half in Tidewater and half outside if a phased approach is opted for."

Federal Agencies

One respondent replied that "to do the job the Corps is now doing would require a minimum of 26 people. Since the Corps is currently understaffed to do an adequate job, a more realistic number might be 40 people." The other respondent felt that about 20-25 employees would be needed to staff a non-tidal wetlands program.
Private Citizens

One respondent estimated that 11 employees would be needed "to administer a tidewater program and 5 or 6 additional if the program is statewide." The other respondent used the current Norfolk Corps staff as a guide and estimated that 27 employees would be needed to staff a non-tidal wetlands program (see chart below).

<table>
<thead>
<tr>
<th>CURRENT NORFOLK CENTRAL OFFICE</th>
<th>APPROX. COE STAFF SIZE **</th>
<th>RECOMMENDED ADDITIONS OR SUBTRACTIONS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Office</td>
<td>8-10 **</td>
<td>+2</td>
<td>12</td>
</tr>
<tr>
<td>Tidewater</td>
<td>6 ##</td>
<td>-2</td>
<td>4</td>
</tr>
<tr>
<td>Eastern Shore</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Northern Neck</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Southwest</td>
<td>1</td>
<td>+1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECOMMENDED ADDITIONAL OFFICES</th>
<th>APPROX. COE STAFF SIZE **</th>
<th>RECOMMENDED ADDITIONS OR SUBTRACTIONS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northcentral</td>
<td>0</td>
<td>+3</td>
<td>3</td>
</tr>
<tr>
<td>Capitol Region</td>
<td>0</td>
<td>+3</td>
<td>3</td>
</tr>
</tbody>
</table>

* Managers and professionals only
** Regulatory permits
# Would include a Southcentral field staff (3), technical support team for all regions (4) and Headquarters staff (5)
## Waterways inspection
Note: Question 18 was asked of the two private environmental groups.

18. Do you feel that the climate is "ripe" for adoption of some type of non-tidal wetland protection in Virginia?

One respondent said that the climate was ripe for adoption of some kind of non-tidal wetland protection in Virginia. The other respondent said that, "we're still a bit "green" in spite of the Bay Agreement and any argument for non-tidal protection."
APPENDIX C

WETLANDS DEFINITIONS

The following material has been excerpted from an unpublished manuscript (1987) prepared by D. E. Williard and K. E. Van Black under contract to the EPA. The fifty wetlands definitions gathered from federal documents, state legislation, national organizations, and international organizations demonstrate a range of approaches in defining wetlands. These definitions reflect a variety of objectives and the fact that there are many different types of wetlands each subject to varied vegetative, hydrologic, and soil parameters.
WETLANDS DEFINITIONS

Examples of Federal Definitions


"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. They are referred to by such names as marshes, swamps, bogs, wet meadows, potholes, sloughs, and river-overflow lands. Shallow lakes and ponds, usually with emergent vegetation as a conspicuous feature, are included in the definition, but the permanent waters of streams, reservoirs, and deep lakes are not included. Neither are water areas that are so temporary as to have little or not effect on the development of moist-soil vegetation."

2. 16 U.S.C. 1302 (Water Bank Act)

"... As used in this chapter, the term 'wetlands' means (1) the inland fresh areas described as types 1 through 7 in Circular 39, Wetlands of the United States, published by the United States Department of the Interior (or the inland fresh areas corresponding to such types in any successor wetland classification system developed by the Department of the Interior), (2) artificially developed inland fresh areas that meet the description of the inland fresh areas described in clause (1) of this sentence, and (3) such other wetland types as the Secretary may designate."

3. From an early introduction to Cowardin, *et al.*

"... We propose the following preliminary definition designed to overcome some of the problems present in the definition developed at Bay St. Louis.

"Wetlands are areas that, (1) support or are capable of supporting vegetation of any of the families listed by Sculthorpe (1967:16-20), or (2) have soils that are classified as Histosols except for Folists or in which the suborder contain the elements *aquic, noll,* or *sal,* or whose soil moisture regime can be described as *perudic, aquic,* or *peraquic* and that have not been artifically drained, (3) are irrigated or receive seepage water form a manmade structure such that the soil has water above the surface for one month or more during the year, or (4) are never vegetated but where the water lies from 20" below to 30" above the land surface. Water depths are measured relative to average elevation inland and low water (spring tide) in tidal areas."

"Wetland is defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth hydrophytes."


Sec. 7(c). "The term 'wetlands' means those areas that are inundated by the surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds."


"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year."

7. 33 CFR 323.2

"The term 'wetlands' means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

8. 1985 Food Security Act ("Swampbuster").

Wetland is "land that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances does support a prevalence of hydrophytic vegetation typically adopted for life in saturated soil conditions."
Examples of State Definitions


"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."


"Wetlands" means streams, channels, lakes, reservoirs, bays, estuaries, lagoons, marshes, and the lands underlying and adjoining such waters, whether permanently or intermittently submerged, to the extent that such waters and lands support and contain significant fish, wildlife, recreational, aesthetic, or scientific resources."


"Wetland" means those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal water, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all, of the following: salt meadow grass (Spartina patens), spike grass (Distichlis spicata), black grass (Juncus gerardii), saltmarsh grass (Spartina alterniflora), saltworts (Salicornia europaea and Salicornia bigelovii), sea lavender (Limonium carolinum), saltmarsh bulrushes (Scirpus robustus and Scirpus paludosus var. atlanticus), sand spurrey (Spergularia marina), switch grass (Panicum virgatum), tall cordgrass (Spartina pectinata), hightide bush (Iva frutescens var oraria), cattails (Typha angustifolia and Typha latifolia), spike rush (Eleocharis rostellata), chairmaker's rush (Scirpus americana), bent grass (Agrostis palustris), and sweet grass (Hierochloe odorata), royal fern (Osmunda regalis), interrupted fern (Osmunda claytoniana), cinnamon fern (Osmunda cinnamomea), sensitive fern (Onoclea sensibilis), marsh fern (Dryopteris thelypteris), bur-reed family (Sparganium eurycarpum, Sparganium androcladum, Sparganium americanum, Sparganium chlorocarpum, Sparganium angustifolium, Sparganium fluctuans, Sparganium minimum), horned pondweed (Zannichellia palustris), water-planitain (Alisma trivale), arrowhead (Sagittaria subulata, Sagittaria graminea, Sagittaria eatoni, Sagittaria engelmanniana), wild rice (Zizania aquatica), tuckahoe (Peltandra virginica), water-arum (Calas palustris), skunk cabbage (Symplocarpus foetidus), sweet flag (Acorus calamus), pickerelweed (Pontederia cordata), water stargrass (Heteranthera dubia), soft rush (Juncus effusus), false hellebore (Veratrum viride), slender blue
flag (Iris prismatic pursh), blue flag (Iris versicolor), yellow iris (Iris pseudacorus), lizard's tail (Saururus cernuus), speckled alder (Alnus rugosa), common alder (Alnus serrulata), arrow-leaved tearthumb (Polygonum sagittatum), halberd-leaved tearthumb (Polygonum arifolium), spatter-dock (Nuphar variegatum, Nuphar advena), marsh marigold (Caltha palustris), swamp rose (Rosa palustris), poison ivy (Rhus radicans), poison sumac (Rhus vernix), red maple (Acer rubrum), jewelweed (Impatiens capensis), marshmallow (Hibiscus palustris), loosestrife (Lythrum alatum, Lythrum salicaria), red osier (Cornus stolonifera), red willow (Cornus amomum), [narrow-leaf dogwood] (sic) (Cornus obliqua), sweet pepper-bush (Calithra alnifolia), swamp honeysuckle (Rhododendron viscosum), highbush blueberry (Vaccinium corymbosum), cranberry (Vaccinium macrocarpon), sea lavender (Limonium nashii), climbing hemp-weed (Mikania scandens), joe pye weed (Eupatorium purpureum), joe pye weed (Eupatorium maculatum), thoroughwort (Eupatorium perfoliatum)."


"'Wetlands' means lands, including submerged land, not regulated pursuant to sections 22a-28 to 35, inclusive, of the 1975 Revision of the General Statutes, as amended, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and flood plain by the National Cooperative Soils Survey, as may be amended from time to time, of the Soil Conservation Service of the United States Department of Agriculture."

13. Delaware Wetlands Act. 7 D.C.A. Sec. 6603(8).

"'Wetlands' shall mean those lands above the mean low water elevation including any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State along the Delaware Bay and Delaware River, Indian River Bay, Rehoboth Bay, Little and Big Assawoman Bays, the coastal inland waterways, or along any inlet, estuary or tributary waterway or any portion thereof, including those areas which are now or in this century have been connected to tidal waters, whose surface is at or below an elevation of 2 feet above local mean high water, and upon which may grow or is capable of growing any but not necessarily all of the following plants:

Elgrass (Zosterera marina), Wedgeon Grass (Ruppia maritima), Sago Pondweed (Potamogeton pectinatus), Saltmarsh Cordgrass (Spantina alterniflora), Saltmarsh Grass (Spantina cynosuroides), Saltmarsh Hay (Spantina patens), Spike Grass (Distichlis spicata), Black Grass (Juncus gerardii), Switch Grass (Panicum virgatum), Three Square Rush (Scirpus americanus), Sea Lavender (Limonium carolinianum), Seaside Goldenrod (Solidago sempervirens), Sea Blite (Suaeda maritima), Sea Blite (Suaeda linearis), Perennial Glasswort (Salicornia virginica), Dwarf Glasswort (Salicornia bigelovii), Samphire [or Slender Glasswort] (Salicornia europaea), Marsh Aster (Aster
tenuifolius), Mock Bishop's Weed (Ptilimnium capillaceum), Seaside Plantain (Plantage oliganthos), Orach (Atriplex patula var. hastata), March Elder (Iva frutescens var. oraria), Goundsel Bush (Baccharis halmifolia), Bladder Wrach (Fucus vesiculosis), Swamp Rose Mallow, Seaside Hollyhock or Marsh Mallow (Hibiscus palustris), Torrey Rush (Scirpus torreyi), Narrow-leaved Cattail (Typha angustifolia), and Broad-leaved Cattail (T. latifolia) and those lands not currently used for agricultural purposes containing 400 acres or more of contiguous nontidal swamp, bog, muck, or marsh exclusive of narrow stream valleys where fresh water stands most, if not all, of the time due to high water table, which contribute significantly to ground water recharge, and which would require intensive artificial drainage using equipment such as pumping stations, drain fields or ditches for the production of agricultural crops."


"For purposes of dredge and fill permitting activities by the department [of Environmental Regulation], 'wetlands' are defined as those areas within the jurisdiction of the department pursuant to s. 403.817." [Note: 403.817 Legislative intent: determination of the natural landward extent of waters for regulatory purposes. See Florida Rules relating to the method for determining the landward extent of waters.]


"'Coastal marshlands' or 'marshlands' mean any marshland or salt marsh in the State of Georgia within the estuarine area of the state, whether or not the tide waters reach the littoral areas through natural or artificial water courses. 'Marshlands' shall include those areas upon which grow one, but not necessarily all, of the following: saltmarsh grass (Spartina alterniflora), black grass (Juncus gerardii), high-tide bush (Iva frutescens var. oraria). The occurrence and extent of salt marsh peat at the undisturbed surface shall be deemed to be conclusive evidence of the extent of a salt marsh or a part thereof."


"'Wetlands' means land preserved in its natural condition which is mostly under water, which produces little economic gain, which has no practical use except for wildlife or water conservation purposes, and the drainage of which would be lawful, feasible and practical and would provide
land suitable for the production of livestock, dairy animals, poultry, fruit, vegetables, forage, and grains. 'Wetlands' included adjacent land which is not suitable for agricultural purposes due to the presence of the land which is under water."

17. Maine-Freshwater Wetlands. 38 M.R.S.A. Sec. 406(1).

"Wetland. 'Wetland' means freshwater swamps, marshes, bogs, and similar areas of 10 or more contiguous acres that have been designated as freshwater wetlands under section 407." [Sec. 407 repealed. See section 407-A.]


1. Criteria. For the purposes of this circle, areas identified by the department as freshwater wetlands shall be limited to areas:

A. Which are of 10 or more contiguous acres:

B. Which are characterized predominately by wetland soils and vegetation; and

C. Which are not subject to the jurisdiction of section 391 to 396, sections 471 to 478 or Title 12, sections 7776 to 7780.

There areas may contain small inclusions of land that does not conform to the criteria of this subsection."

18. Maine-Coastal Wetlands. 38 M.R.S.A. Sec. 472(2).

"Coastal wetlands. 'Coastal wetlands' are all tidal and subtidal lands including all areas below any identifiable debris line left by tidal action, all areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water habitat, and any swamp, marsh, bog, beach, flat or other contiguous lowland which is subject to tidal action or normal storm flowage at any time excepting periods of maximum storm activity. Coastal wetlands may include portions of coastal sand dunes."


"(j) Private wetlands. 'Private wetlands' means any land not considered 'State wetlands' bordering on or lying beneath tidal waters, which is subject to regular or periodic tidal action and supports aquatic growth. This includes wetlands, transferred by the State by a valid grant, lease, patent, or grant confirmed by Article 5 of the Declaration of Rights of the Constitution, to the extent of the interest transferred."
20. Maryland Wetlands and Riparian Rights. Sec. 9-101(m).

"(m) State wetlands. 'State wetlands' means any land under the navigable waters of the State below the mean high tide, affected by the regular rise and fall of the tide. Wetlands of this category which have been transferred by the State by valid grant, lease, patent confirmed by Article 5 of the Declaration of Rights of the Constitution shall be considered 'private wetland' to the extent of the interest transferred."

21. Massachusetts - Protection of Flood Plains, Seacoasts, and Other Wetlands; Definitions. ALM GL C. 131 Sec. 40.

"The term 'coastal wetlands,' as used in this section, shall mean any bank, marsh, swamp, meadow, flat or other lowland subject to tidal action or coastal storm flowage.

The term 'freshwater wetlands,' as used in this section, shall mean wet meadows, marshes, swamps, bogs, areas where groundwater, flowing or standing surface water or ice provide a significant part of the supporting substrate for a plant community for at least five months of the year; emergent and submergent plant communities in inland waters; that portion of any bank which touches any inland waters."

22. Massachusetts - Protection of Inland Wetlands, ALM GL C. 131 Sec. 40A.

"... In this section, the term 'inland wetlands' shall include the definition of 'freshwater wetlands' as set forth in section forty, and it shall further include that portion of any bank which touches any inland waters or any freshwater wetlands, and any freshwater wetland subject to flooding."

23. Michigan - Goemaere-Anderson Wetland Protection Act, M.C.L.A. Sec. 281.702.2(g).

"Wetland" means land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and which is any of the following:

(i) Contiguous to the Great Lakes or Lake St. Clair, an inland lake or pond, or a river or stream.

(ii) Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and more than 5 acres in size; except this subdivision shall not be of effect, except for the purpose of inventorying, in counties of less than 100,000 population until the department certifies to the
commission of natural resources it has substantially completed its inventory of wetlands in that county.

(iii) Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and 5 acres or less in size if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction, and the department has so notified the owner; except this subdivision may be utilized regardless of wetland size in a county in which subdivision (ii) is of no effect; except for the purpose of inventorying, at the time."

24. Minnesota Statutes Annotated, Sec. 105.37.

"Subd. 14. 'Public waters' includes and shall be limited to the following waters of the state:

(a) All water basins assigned a shoreland management classification by the commissioner pursuant to section 105.485, except wetlands less than 80 acres in size which are classified as natural environment lakes;

(b) All waters of the state which have been finally determined to be public waters or navigable waters by a court of competent jurisdiction;

(c) All meandered lakes, except for those which have been legally drained;

(d) All waterbasins previously designated by the commissioner for management for a specific purpose such as trout lakes and game lakes pursuant to applicable laws;

(e) All waterbasins designated as scientific and natural areas pursuant to section 84.033;

(f) All waterbasins located within and totally surrounded by publicly owned lands;

(g) All waterbasins where the state of Minnesota or the federal government holds title to any of the beds or shores, unless the owner declares that the water is not necessary for the purposes of the public ownership;

(h) All waterbasins where there is a publicly owned and controlled access which is intended to provide for public access to the water basin; and
(i) All natural and altered natural watercourses with a total drainage area greater than two square miles, except that trout streams officially designated by the commissioner shall be public waters regardless of the size of their drainage area.

The public character of water shall not be determined exclusively by the proprietorship of the underlying, overlying, or surrounding land or by whether it is a body or stream of water which was navigable in fact or susceptible or being used as a highway for commerce at the time this state was admitted to the union.

For purposes of statutes other than sections 105.37, 105.38 and 105.391, the term "public waters" shall include "wetlands" unless the statute expressly states otherwise.

Subd. 15. "Wetlands" includes, and shall be limited to all types 3, 4, and 5 wetlands, as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, which are ten or more acres in size in unincorporated areas or 2 1/2 or more acres in incorporated areas."

25. Mississippi Coastal Wetlands Protection Law. Mississippi Codes Annotated Sec. 49-27-5(a) and (b).

"(a) "Coastal wetlands" means all publicly owned lands subject to the ebb and flow of the tide; which are below the watermark of ordinary high tide; all publicly owned accretions above the watermark of ordinary high tide and all publicly owned submerged water-bottoms below the watermark of ordinary high tide.

(b) The term "coastal wetlands" shall be interpreted to include the flora and fauna on the wetlands and in the wetlands."


"... For the purposes of this act the term "coastal wetlands" shall mean any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of New Jersey along the Delaware bay and Delaware river, Raritan bay, Barnegat bay, Sandy Hook bay, Shrewsbury river including Navesink river, Shark river, and the coastal inland waterways extending southerly from Manasquan Inlet to Cape May Harbor, or at any inlet, estuary, or tributary waterway or any thereof, including those areas now or formerly connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water and upon which may grow or is capable of growing some, but not necessarily all, of the following: Salt meadow grass (Spartina patens), spike grass (Distichlis spicata), black grass (Juncus gerardii), saltmarsh grass (Spartina alterniflora), saltworts (Salicornia
[el]europaea (sic), and Salicornia bigelovii), Sea Lavender (Limonium carolinianum), saltmarsh bulrushes (Scirpus robustus and Scirpus paludosus var. atlanticus), sand spurrey (Spergularia marina), switch grass (Panicum virgatum), tall cordgrass (Spartina pectinata), hightide bush (Iva frutescens var. oraria), cattails (Typha angustifolia, and Typha latifolia), spike rush (Eleocharis rostellata), chairmaker's rush (Scirpus americana), bent grass (Argrostis palustris), and sweet grass (Hierochloe odorata). The term 'coastal wetlands' shall not include any land or real property subject to the jurisdiction of the Hackensack Meadowlands Development Commission pursuant to the provisions of P.L. 1968, Chapter 404, sections 1 through 84 (C. 13:17-1 through C. 13:17-86)."


"'Wetlands' means any land which is annually subject to periodic or continual inundation by water and commonly referred to as a bog, swamp, or marsh which are either (a) one acre or more in size or (b) located adjacent to a body of water, including a permanent stream, with which there is free interchange of water at the surface, in which case there is no size limitation."


"1. 'Freshwater wetlands' means lands and waters of the state as shown on the freshwater wetlands maps which contain any or all of the following:

(a) lands and submerged lands commonly called marshes, swamps, sloughs, bogs and flats supporting aquatic or semi-aquatic vegetation of the following types:

(1) wetland trees, which depend upon seasonal or permanent flooding or sufficiently water-logged soils to give them a competitive advantage over other trees; including, among others, red maple (Acer rubrum), willows (Salix spp.), black spruce (Picea mariana), swamp white oak (Quercus bicolor), red ash (Fraxinus pennsylvanica), black ash (Fraxinus nigra), silver maple (Acer saccharinum), American elm (Ulmus americana), and Larch (Larix laricina);

(2) wetland shrubs, which depend upon seasonal or permanent flooding or sufficiently water-logged soils to give them a competitive advantage over other shrubs; including, among others, alder (Alnus spp.), buttonbush (Cephalanthus occidentalis), bog rosemary (Andromeda glaucophylla), dogwoods (Cornus spp.), and leatherleaf (Chamaedaphne calyculata);
(3) emergent vegetation, including, among others, cattails (Typha spp.), pickerelweed (Pontederia cordata), bulrushes (Scirpus spp.), arrow arum (Peltandra virginica), arrowheads (Sagittaria spp.), reed (Phragmites communis), wildrice (Zizania aquatica), bur-reeds (Sparganium spp.), purple loosestrife (Lythrum salicaria), swamp loosestrife (Decodon verticillatus), and water plantain (Alisma plantagoaquatica);

(4) rooted, floating-leaved vegetation; including, among others, waterlily (Nymphaea odorata), water shield (Brasenia schreberi), and spatterdock (Nuphar spp.);

(5) free-floating vegetation: including, among others, duckweed (Lemma spp.), big duckweed (Spirodela polyrhiza), and watermeal (Wolffia spp.);

(6) wet meadow vegetation, which depends upon seasonal or permanent flooding or sufficiently water-logged soils to give it a competitive advantage over other open land vegetation: including, among others, sedges (Carex spp.), rushes (Juncus spp.), cattails (Typha spp.), rice cut-grass (Leersia oleracea), reed canary grass (Phalaris arundinacea), swamp loosestrife (Decodon verticillatus), and spikerush (Eleocharis spp.);

(7) bog mat vegetation: including, among others, sphagnum mosses (Sphagnum spp.), bog rosemary (Andromeda glaucophylla), leatherleaf (Chamaedaphne calyculata), pitcher plant (Sarracenia purpurea), and cranberries (Vaccinium macrocarpon and V. oxyccus);

(8) submergent vegetation: including, among others, pondweeds (Potamogeton spp.), naiads (Najas spp.), bladderworts (Utricularia spp.), wild celery (Vallisneria americana), coontail (Ceratophyllum demersum), watermilfoils (Myriophyllum spp.), muskgrass (Chara spp.), stonewort (Nitella spp.), water weeds (Elodea spp.), and water smartweed (Polygonum amphibium);

(b) lands and submerged lands containing remnants of any vegetation that is not aquatic or semi-aquatic that has died because of wet conditions over a sufficiently long period, provided that such wet conditions do not exceed a maximum seasonal water depth of six feet and provided further that such conditions can be expected to persist indefinitely, barring human intervention;

(c) lands and waters substantially enclosed by aquatic or semi-aquatic vegetation as set forth in paragraph (b), the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation; and

(d) the waters overlying the areas set forth in (a) and (b) and the lands underlying (c)."

"1. 'Tidal wetlands' shall mean and include the following:

(a) those areas which border on or lie beneath tidal waters, such as, but not limited to, banks, bogs, salt marsh, swamps, meadows, flats or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters;

(b) all banks, bogs, meadows, flats and tidal marsh subject to such tides, and upon which grow or may grow some or any of the following: salt hay (Spartina patens and Distichlis spicata), black grass (Juncus gerardii), saltworts (Salicornia spp.), sea lavender (Limonium carolinianum), tall cordgrass (Spartina pectinata and Spartina cynosuroides), hightide bush (Iva frutescens), cattails (Typha angustifolia and Typha latifolia), groundsel (Baccharis halimifolia), marsh mallow (Hibiscus palustris) and the intertidal zone including low marsh cordgrass (Spartina alterniflora)."

30. New York State ECL Sec. 51-0703(7).

"'Wetlands.' Land and lands under water which may be permanently, temporarily or intermittently covered with fresh or salt-water and commonly referred to as flood basins or flats, meadows, marshes, shrub swamps, wooded swamps, swamps or bogs."

31. North Carolina - Permits to dredge or fill in or about estuarine waters or state-owned lakes. G.S. Sec. 113-229(n)(2) or (3).

"(2) 'Estuarine waters' means all the waters of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters agreed upon by the Department of Natural Resources and Community Development and the Wildlife Resources Commission, within the meaning of G.S. 113-129.

(3) 'Marshland' means any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tidewaters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides. Salt marshland or other marsh shall be those areas upon which grow some, but not necessarily all, of the following salt marsh and marsh plant species: Smooth or salt water Cordgrass (Spartina alterniflora), Black Needlerush (Juncus roemerianus), Glasswort (Salicornia spp.), Salt Grass (Distichlis spicata), Sea Lavender (Limonium spp.), Bulrush (Scirpus spp.) Saw Grass (Cladium jamaicense), Cattail (Typha spp.), Salt-Meadow Grass (Spartina patens), and Salt Reed-Grass (Spartina cynosuroides)."

"For the purpose of this section 'wetlands' means all types 3, 4, and 5 wetlands, as determined by the commissioner of agriculture and the game and fish commissioner, in accordance with United States fish and wildlife circular No. 39 (1971 edition), drainage of which would be feasible and practical."


"Wetlands" means all types 3, 4, and 5 wetlands, as determined by the commissioner [of agriculture] with the advice of the game and fish commissioner, in accordance with the United States fish and wildlife service circular No. 39 (1971 edition)."

34. Pennsylvania Oil and Gas Act, 58 P.S. Sec. 601.103.

"Wetland. Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas."


"A coastal wetland shall mean any salt marsh bordering on the tidal waters of this state, whether or not the tide waters reach the littoral area through natural or artificial water courses, and such uplands contiguous thereto, but extending no more than fifty (50) yards inland therefrom, as the director shall deem reasonably necessary to protect such salt marshes for the purposes set forth in Sec. 2-1-13. Salt marshes shall include those areas upon which grow some, but not necessarily all of the following: Salt meadow grass (Spartina patens), spike grass (Distichlis spicata), black grass (Juncus gerardii), saltmarsh grass (Spartina alterniflora), saltworts (Salicornia europaea, and Salicornia bigelovii), sea lavender (Limonium carolinianum), saltmarsh bulrushes (Scirpus robustus, and Scirpus paludosus var. atlanticus), sand spurrey (Spergularia marina), switch grass (Panicus virgatum), tall cordgrass (Spartina pectinata), high-tide bush (Iva frutescens var. oraria), cattails (Typha angustifolia, and Typha latifolia), spike rush (Eleocharis rostellata), chairmaker's rush (Scirpus americana), bent grass (Argostis palustris), and sweet grass (Hierochloe odorata). The occurrence and extent of saltmarsh peat at the undisturbed surface shall be construed to be true evidence of the extent of a salt marsh or a part thereof."
37. South Carolina - Coastal Tidelands and Wetlands, Sec. 48-39-10(G).

"'Tidelands' means all areas which are at or below mean high tide and coastal wetlands, mudflats, and similar areas that are contiguous or adjacent to coastal waters and are an integral part of the estuarine systems involved. Coastal wetlands include marshes, mudflats, and shallows and means those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction. Provided, however, nothing in this definition shall apply to wetland areas that are not an integral part of an estuarine system. Further, until such time as the exact geographic extent of this definition can be scientifically determined, the Council shall have the authority to designate its approximate geographic extent."


"'Wetlands' means lands which have hydric soils and a dominance (fifty percent (50%) of more of stem count based on communities) of obligate hydrophytes. They include the following generic types:

(i) Fresh water meadows;
(ii) Shallow fresh water marshes;
(iii) Shrub swamps with semipermanent water regimes most of the year;
(iv) Wooded swamps or forested wetlands;
(v) Open fresh water except farm ponds; and
(vi) Bogs."

[Note the separate definition for "Bottomland hardwood forests" in Sec. 401(1)(A).]

39. Texas - Coastal Wetland Acquisition., Texas Natural Resource Code Sec. 33.233(3).

"'Coastal wetland' means marshes and other areas of high biologic productivity where seawater is present during times other than and in addition to storms or hurricanes as defined by the Beaufort Wind Scale, but does not include any areas seaward of the line of mean annual low spring tide, nor any mainland area where seawater is present at a given point of vegetation characteristic of marshes containing seawater is prima facie evidence that seawater is present at the point during times other than and in addition to storms or hurricanes as defined by the Beaufort Wind Scale."
40. Vermont - Municipal and Regional Planning and Development, 24 V.S.A. Sec. 117-4303(19); Vermont - Water Resources Management, 10 V.S.A. Sec. 29-902(5).

"Wetlands" means those areas of the state that are inundated by surface or groundwater with a frequency sufficient to support vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. Such areas include but are not limited to marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs and ponds, but excluding such areas as grow food or crops in connection with farming activities."

41. Virginia Code Section 62.1-13.2(f), (1), and (m).

"(f) 'Vegetated wetlands' means all that land lying between and contiguous to mean low water and an elevation above mean low water equal to the factor 1.5 times the mean tide range at the site of the proposed project in the county, city, or town in question; and upon which is growing on July one, nineteen hundred seventy-two or grows thereon subsequent thereto, any one or more of the following: saltmarsh cordgrass (Spartina alterniflora), saltmeadow hay (Spartina patens), saltgrass (Distichlis spicata), black needle-rush (Juncus roemerianus), saltwort (Salicornia spp.), sea lavender (Limonium spp.), marsh elder (Iva frutescens), groundsel bush (Baccharis halimifolia), wax myrtle (Myrica sp.), sea oxeye (Borrichia frutescens), arrow arum (Peltandra virginica), pickerelweed (Pontederia cordata), bit cordgrass (Spartina cynosuroides), rice cutgrass (Leersia oryzoides), wild rice (Zizania aquatica), bulrush (Scirpus validus), spikerush (Eleocharis sp.), sea rocket (Cakile edentula), southern wildrice (Zizaniopsis miliacea), cattails (Typha spp.), three-squares (Scirpus spp.), button bush (Cephalanthus occidentalis), bald cypress (Taxodium distichum), black gum (Nyssa sylvatica), tupelo (Nyssa aquatica), dock (Rumex purpurascens), royal fern (Osmunda regalis), marsh hibiscus (Hibiscus moscheutos), beggar's ticks (Bidens sp.), smartweeds (Polygonum sp.), arrowhead (Sagittaria spp.), sweet flag (Acorus calamus), water hemp (Amaranthus cannabinus), reed grass (Phragmites communis), and switch grass (Panicum virgatum).

The vegetated wetlands of Back Bay and its tributaries and the vegetated wetlands of the North Landing River and its tributaries shall mean all marshes subject to flooding by normal tides, including wind tides, provided this shall not include hurricane or tropical storm tides and upon which one or more of the following vegetation species are growing or grows thereon subsequent to the passage of this amendment: saltmarsh cordgrass (Spartina alterniflora), saltmeadow hay (Spartina patens), black needlerush (Juncus roemerianus), marsh elder (Iva frutescens), groundsel bush (Baccharis halimifolia), wax myrtle (Myrica sp.), arrow arum (Peltandra virginica), pickerelweed (Pontederia cordata), bit cordgrass (Spartina cynosuroides), rice cutgrass (Leersia oryzoides), wildrice (Zizania
aquatica), bulrush (Scirpus validus, spikerush (Eleocharis sp.), cattails (Typha spp.), three-squares (Scirpus spp.), dock (Rumex sp.), smartweed (Polygonum sp.), yellow pond lily (Nuphar sp.), royal fern (Osmunda regalis), marsh hibiscus (Hibiscus moscheutos), beggar's tick (Bidens sp.), arrowhead (Sagittaria sp.), water hemp (Amaranthus cannabinus), reed grass (Phragmites communis) and switch grass (Panicum virgatum).

(1) 'Nonvegetated wetlands' means all that land lying contiguous to mean low water and which land is between mean low water and mean high water not otherwise included in the term 'vegetated wetlands' as defined herein and also includes those unvegetated areas of Back Bay and its tributaries and the North Landing River and its tributaries subject to flooding by normal tides including wind tides but not including hurricane or tropical storm tides.

(m) 'Wetlands' means both vegetated and nonvegetated wetlands."


"'Wetlands' or 'wetland areas' means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all marshes, bogs, swamps, and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the department of ecology; Provided, that any county or city may determine that portion of a one-hundred-year-flood plain to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom. . . . "


"'Wetlands' include areas commonly called marshes, swamps, thickets, bogs or wet meadows; areas where water stands at, above, or within approximately 18 inches below soil surface for significant portions of years with normal precipitation; areas with soils of the type identified on soil maps as histisols (peat and muck) or as mineral soils that are "somewhat poorly drained," "poorly drained," or "very poorly drained," or as "wet alluvial lands," "marsh," or "water;" and areas where aquatic or semi aquatic vegetation is dominant."

44. Wisconsin - Wetlands Mapping, W.S.A. 23.32(1).

"In this section 'wetland' means an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions."
"Wetlands are here defined as those land areas characterized by surface water or saturated soils during at least a part of the growing season such that moist soil vegetation or shallow water plants can thrive. The permanent channels of streams and rivers and the open water of lakes and reservoirs are not included in this definition."

**Examples of Miscellaneous Definitions**

46. Marinette County's Shoreland Zoning Ordinance No. 24, Sec. 2.29.

Wetlands are "[a]reas where ground water is at or near the surface much of the year or where any segment of the plant cover is deemed an aquatic according to N.C. Passet's *Manual of Aquatic Plants*.

47. Western Australia Department of Conservation and Environment. 1977. *Guidelines to the Conservation and Management of Wetlands in Western Australia*.

"There are many definitions of 'wetlands' some of which are specific to certain geographical areas. In Western Australia wetlands have been defined by the Wetlands Advisory Committee (established by the Department of Conservation and Environment) as:

Areas of seasonally, intermittently, or permanently waterlogged soils or inundated land, whether natural or otherwise, fresh or saline, e.g. water-logged soils, ponds, billabogs, lakes, swamps, tidal flats, estuaries, rivers, and their tributaries."


"By 'wetlands' we mean sites which are waterlogged or water covered for a significant part of the year: swamps, marshes, bogs, fens, and wet grasslands. Such categories often overlap. Ponds may be temporary, marshes may flood. Fens may contain open pools, lake shores may be swamp-fringed. In the same way, wetlands grade into damp scrub, heath, or moorland. But in every habitat covered by this Handbook you are likely to get your feet wet. Salt and brackish habitats have, however been excluded."

Glossary, p. 377. Wetland: "land containing high quantities of soil moisture, i.e., submerged or where the water table is at or near the surface for most of the year."


Wetlands: "areas which are periodically or permanently inundated and which are characterized, under normal conditions, by vegetation that requires saturated soils for growth and reproduction."


"Wetland-non-forested: standing shallow water on herbaceous vegetation."

"Wetland-forested: standing shallow water on woody vegetation."


"Freshwater wetlands include, but are not limited to, wet meadows; marshes; swamps; bogs; areas where groundwater, flowing or standing surface water or ice provide a significant part of the supporting substrate for a plant community for a significant part of the year; emergent and submergent plant communities in inland waters; that portion of any bank which touches any inland waters; and land, including submerged land, which consists of any of the soil types designated as but not limited to, very poorly drained by the National Cooperative Soils Survey, as may be amended from time to time, of the Soil Conservation Service of the United States Department of Agriculture."
APPENDIX D

A COMPARISON OF EXEMPTIONS AND PROGRAM ELEMENTS BETWEEN THE FEDERAL 404 ASSUMPTION PROGRAM AND VIRGINIA'S PROGRAMS

This table contains a comparison of the exempt activities in Virginia's tidal wetlands act with activities exempted under the federal 404 permit program.

<table>
<thead>
<tr>
<th>VA State Code Exemptions (62.1-13.5 Sec. 3)</th>
<th>Applicable 404 Exempted Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following uses of and activities on wetlands are permitted, if otherwise permitted by law:</td>
<td>The following activities are exempt from Section 404 permit requirements, except as specified in paragraphs (a) and (b) of this subsection:</td>
</tr>
<tr>
<td>(a) The construction and maintenance of noncommercial catwalks, piers, boathouses, boat shelters, fences, duckblinds, wildlife management shelters, footbridges, observation decks and shelters and other similar structures; provided that such structures are so constructed on pilings as to permit the reasonably unobstructed flow of the tide and preserve the natural contour of the wetlands;</td>
<td>Not addressed.</td>
</tr>
<tr>
<td>(b) The cultivation and harvesting of shellfish, and worms for bait; plowing, seeding, and harvesting for minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices, as defined in paragraph (d) of this section (Sec. 232.3 (c)(1)(i)). To</td>
<td>Normal farming, silviculture and ranching activities such as</td>
</tr>
</tbody>
</table>
fall under this exemption the activities specified in paragraph (c)(1) of this section must be part of an established (i.e., ongoing) farming, silviculture, or ranching operation, and must be in accordance with definitions in paragraph (d) of this section. Activities on areas lying fallow as part of a conventional rotational cycle are part of an established operation (Sec. 232.3 (c)(1)(ii)(A)).

(c) Noncommercial outdoor recreational activities, including hiking, boating, trapping, hunting, fishing, shellfishing, horseback riding, swimming, skeet and trap shooting, and shooting preserves; provided that no structure shall be constructed except as permitted in subsection (a) of this section;

The cultivation and harvesting of agricultural, forestry or horticultural products; grazing and haying.

Conservation, repletion and research activities of the Virginia Marine Resources Commission, the Virginia Institute of Marine Science, Department of Game and Inland Fisheries and other related conservation agencies;
(f) The construction or maintenance of aids to navigation which are authorized governmental authority;

Maintenance, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption (Sec. 232.3 (c)(2)).

(g) Emergency decrees of any duly appointed health officer of a governmental subdivision acting to protect the public health;

Not addressed.

(h) The normal maintenance, repair or addition to presently existing roads, highways, railroad beds, or the facilities of any person, firm, corporation, utility, federal, state, county, city or town abutting on or crossing wetlands, provided that no waterway is altered and no additional wetlands are covered;

See (f) above.
(i) Governmental activity
(governmental activity is
defined as any or all of the
services provided by the
Commonwealth or a county, city
or town to its citizens for
the purpose of maintaining
public facilities and shall
include but shall not be
limited to such services as
constructing, repairing and
maintaining roads, sewage
facilities, supplying and
treating water, street lights,
and construction of public
buildings) on wetlands owned or
leased by the Commonwealth of
Virginia, or political
subdivision thereof; and

(j) The normal maintenance of
man-made drainage ditches,
provided that no additional
wetlands are covered; and
provided further that this
paragraph shall not be deemed
to authorize construction of
any drainage ditch.

See (f) above.

Any activity with respect to which
a State has an approved program
under Section 208(b)(4) of the Act
which meets the requirements of
Section 208(b)(4)(B) and (C). See
discussion below (Sec. 232.3
(c)(5)).

Construction or maintenance of farm
or stock ponds or irrigation
ditches or the maintenance (but
not construction) of drainage
ditches. Discharge associated with
siphons, pumps, headgates,
wingwalls, weirs, diversion
structures, and other such
facilities as are appurtenant and
functionally related to irrigation
ditches are included in this
exemption (Sec. 232.3 (c)(3)).
### TABLE B

This table compares the federal 404 assumption program requirements for a state's permit program to the elements of Virginia's permit program.

<table>
<thead>
<tr>
<th>Subsection (h) Requirements for State Permit Program</th>
<th>Applicable Portions of VA State Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) To issue permits which—</td>
<td>No permit shall be granted without an expiration date, and the board, in the exercise of its discretion, shall designate an expiration date for compliance of such work specified in the permit from the date the board granted such permit. The board, however, may, upon proper application grant extensions (Sec. 62.1-13.5 sec. 10).</td>
</tr>
<tr>
<td>(i) apply, and assure compliance with, any applicable requirements of this section, including, but not limited to, the guidelines established under subsection (b)(1) of this section, and sections 1317 and 1343 of this title;</td>
<td></td>
</tr>
<tr>
<td>(ii) are fixed for terms not exceeding 5 years; and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(iii) can be terminated or modified for cause including, but not limited to the following;

(I) violation of any condition of the permit;
(II) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;
(III) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

The board may require a reasonable bond of letter of credit in an amount and with surety and conditions satisfactory to it securing to the Commonwealth compliance with the conditions and limitations set forth in the permit. The board may, after hearing as provided herein, suspend or revoke a permit if the board finds that the applicant has failed to comply with any of the conditions or limitations set forth in the permit or has exceeded the scope of the work as set forth in the application. The board after hearing may suspend a permit if the applicant fails to comply with the terms and conditions set forth in the application (Sec. 62.1-13.5 sec. 8).

The commission shall modify, remand, or reverse the decision of the wetlands board:
(1) If the decision of the wetlands board will not adequately achieve the policy and standards of this chapter or will not reasonably accommodate any guidelines which may have been promulgated by the commission hereunder; or
(2) If substantial rights of the applicant have been prejudiced... (Sec. 62.1-13.13 When Commission to modify, remand, or reverse the decision of the wetlands board).
(B) To issue permits which apply, and assure compliance with all applicable requirements of section 1318 of this title, or to inspect, monitor, enter, and require to at least the same extent as required in section 1318 of this title (section 1318 relates to the Administrator's authority to require monitoring and reporting of effluents).

(C) To assure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application.

62.1-13.16:1 Reporting, site inspections and notice to comply; Commission or Wetlands Board to issue stop work order.

- A. Reporting, site inspections, and notice to comply. — ... the Commissioner or Board Chairman may require of the person responsible for carrying out the provisions of the permit such monitoring and reports as they may reasonably deem necessary. With respect to any reported activity not authorized by the aforementioned chapters or with respect to the violation of any permit issued pursuant thereto, they may direct such onsite inspections as are deemed reasonably necessary to determine whether measures by the permit are being properly performed, or whether the provisions of the aforementioned chapters are being violated...

All applications and maps and documents relating thereto shall be open for public inspection at the office of the recording officer of this......(county, city, or town)...

...wetlands boards shall hold a public hearing on such application. The applicant, the local governing body, the Commissioner, the owner of record of any land adjacent to the wetlands in question, known claimants of water rights in or adjacent to the wetlands in question, the Virginia Institute of Marine Science, the Department of Game and Inland Fisheries, the Water Control Board, the Department of
(D) To assure that the Administrator receives notice of each application (including a copy thereof) for a permit.

(E) To assure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such recommendations are not accepted by the permitting State, that the permitting State will notify such affected state (and Administrator) in writing of its failure to accept such recommendations together with its reasons for so doing.

(F) To assure that no permit will be issued if, in the judgement of the Secretary, after consultation with the Secretary of the department in which the Coast Guard is in operation, anchorage and navigation of any of the navigable waters would be substantially impaired thereby.

Transportation, and governmental agencies expressing interest therein shall be notified by the Board of the hearing by mail not less than 20 days prior to the date set for the hearing... (Sec. 62.1-13.5 sec. 5 and 6).

...Any person may appear and be heard at the public hearing. Each witness at the hearing may submit a concise written statement of his testimony. The board shall make a record of the proceeding which shall include the application, any written statements of witnesses, a summary of statements of all witnesses, the findings and decisions of the board, and the rationale for the decision (Sec. 62.1-13.5 sec.7).

Not addressed.
(G) To abate violations of the permit program, including civil and criminal penalties and other ways and means of enforcement.

The Commission shall have the authority to investigate all projects whether proposed or ongoing which alter wetlands. The Commission shall have the power to prosecute all violations of any order, rule, or regulation of the Commission or of a wetlands board, or violation of any provision of this chapter. Wetlands boards shall have the authority to investigate all projects whether proposed or ongoing which alter wetlands located within the city, town, or county establishing such wetlands board. Wetlands boards shall have the power to prosecute all violations of any order of such boards, or any violation of any provision of the wetlands zoning ordinance (Sec. 62.1-13.16).

Upon receipt of a sworn complaint of a substantial violation of any chapter of this title from the designated enforcement officer, the Commissioner or Board Chairman may, in conjunction with or subsequent to a notice to comply as specified in subsection A of this section [Reporting, site inspections, and notice to comply], issue an order requiring all or part of the activities on the site stopped until the specified corrective measures have been taken. In the case of an activity not authorized by the aforementioned chapters or where the alleged permit noncompliance is causing, or is in eminent danger of causing, significant harm to wetlands, such an order may be issued without regard to
whether the person has been issued a notice to comply as specified in subsection A of this section... Upon completion of corrective action, the order shall immediately be lifted (Sec. 62.1-13.16:1 Reporting, site inspections and notice to comply; Commission or Wetlands Board to issue stop order).

Any person who knowingly, intentionally, negligently or continuously violates any order, rule or regulation of the Commission or of a wetlands board established pursuant to this chapter or violates any provision of this chapter or of a wetlands zoning ordinance enacted pursuant to this chapter or any provision of a permit granted by a wetlands board or the Commission pursuant to this chapter shall be guilty of a misdemeanor. Following a conviction, every day the violation continues shall be deemed a separate offense (Sec. 62.1-13.18 Violation of orders, rules and regulations).

In addition to and notwithstanding the provisions of Sec. 62.1-13.18, upon petition of the Commission or a wetlands board to the court of record having jurisdiction in the city or county wherein any act is done or is threatened to be done which is unlawful under the provisions of this chapter, the court may enjoin such unlawful act and may order the person so acting unlawfully to take such steps as are necessary to restore, protect and preserve the wetlands involved (Sec. 62.1-13.18:1 Injunctions).
APPENDIX E

VIRGINIA’S PROPOSED NON-TIDAL LEGISLATION
HOUSE BILL NO. 1037
AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the Senate Committee on Agriculture, Conservation and Natural Resources
on March 7, 1988)
(Patron Prior to Substitute—Delegate Forehand)

A BILL to amend the Code of Virginia by adding in Chapter 4 of Title 10 an article numbered 6.2, consisting of sections numbered 10-83.4 through 10-83.10, and by adding in Chapter 23 of Title 10 an article numbered 6, consisting of sections numbered 10-262.1 through 10-262.13, relating to uses and activities affecting tidal and nontidal wetlands; penalty.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 4 of Title 10 an article numbered 6.2, consisting of sections numbered 10-83.4 through 10-83.10, and by adding in Chapter 23 of Title 10 an article numbered 6, consisting of sections numbered 10-262.1 through 10-262.13 as follows:

Article 6.2.
Silvicultural Activities in Wetlands.
§ 10-83.4. Definitions.—As used in this article:
“Department” means the Department of Forestry.
“Nontidal wetland” means an area adjacent to state waters, or isolated areas which are greater than one acre in size, not otherwise regulated under Title 62.1, Chapter 2.1 of this Code, that (i) has hydric soils as defined by the U.S. Soil Conservation Service for Virginia; (ii) is recurrently inundated or saturated with surface or ground water and exhibits hydrology as expressed in the U. S. Army Corps of Engineers Wetlands Delineation Manual; and (iii) supports a prevalence of vegetation identified as wetland plants in Virginia by the U. S. Fish and Wildlife Service in its publication Wetland Plants of the State of Virginia. Nontidal wetlands may include but are not limited to bogs, marshes, and swamps, but shall not include backwater areas unintentionally created by roadway fills.

“State waters” means all waters, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction.
“Tidal wetland” means “vegetated wetlands” and “nonvegetated wetlands,” as those terms are defined in § 62.1-13.2.

§ 10-83.5. Application of article.—This article shall only apply to activities affecting tidal or nontidal wetlands in the following jurisdictions: the Counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland, and York; and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach and Williamsburg.

§ 10-83.6. Activities allowed in wetlands.—A. Silvicultural activities are allowed in tidal or nontidal wetlands provided Best Management Practices for tidal and nontidal wetland protection are implemented. The Department of Forestry shall promulgate Best Management Practices in accordance with the Administrative Process Act (§ 9-6.14:1 et seq.) by April 1, 1989. Persons conducting silvicultural activities in tidal or nontidal wetlands, as defined in this article and in Title 62.1, shall notify the Department of Forestry of their intent prior to beginning these activities.

B. Conversion of nontidal wetlands to other land uses shall necessitate compliance with the requirements established in Article 6 of Chapter 23 of this title.

§ 10-83.7. Notice of violation.—If it is determined that there is a failure to comply, the State Forester shall serve notice upon the person who is responsible for compliance with the requirements of this article, or by delivering the notice to the person supervising such
activity at the site. The notice shall set forth the measures needed for compliance and the
time within which such measures shall be completed. Failure to comply within the
specified time period may be deemed a violation of this section.
§ 10-83.8. Adherence to specifications.—Upon receipt of a sworn complaint of a
substantial violation of this article, the State Forester may, in conjunction with or
subsequent to a notice to comply as specified in this article, issue an order requiring that
all or part of the activities of the site be stopped until the specified corrective measures
have been taken. Where the alleged noncompliance is causing, or is in imminent danger of
causi ng. significant harm to nontidal wetlands or their function, such an order may be
issued without regard to whether the person has been issued a notice to comply as
specified in § 10-83.6. The order shall remain in effect for a period of seven days from the
date of service, pending application by the enforcing authority or person to whom the
order is served, or the property owner, for appropriate relief to the circuit court of the
jurisdiction wherein the violation was alleged to have occurred. Upon completion of
corrective action, such order shall immediately be lifted. Nothing in this section shall
prevent the State Forester from taking any other enforcement action specified in this
article.
§ 10-83.9. Appeals.—Any person aggrieved by a decision of the State Forester or the
Department that is made without a formal hearing, may demand a formal hearing
pursuant to the Administrative Process Act (§ 9-6.14:1 et seq.).
§ 10-83.10. Penalties and enforcement.—A. With the consent of any person who violates
or fails, neglects, or refuses to obey any order or requirement of the State Forester or any
provision of this article, such person may be required, in an order issued by the State
Forester after a hearing against such person, to pay civil penalties in specific sums, not to
exceed $1,000 per day for each violation or failure, neglect, or refusal to obey. Such civil
penalties shall be in lieu of any sanction that may be imposed under subsections B, C and
D herein.
B. Any person who violates or fails, neglects, or refuses to obey any lawful
requirement or order of the State Forester or any provision of this article may be
compelled, in a proceeding instituted by the State Forester in a court of appropriate
jurisdiction, to obey such order or provision of this article and to comply therewith by
injunction, mandamus, or other appropriate remedy.
C. The Department shall have the option of requiring compliance or of electing to
correct violations and recover the costs thereof from the responsible party.
D. Any person who knowingly violates any provision of this article, any requirement or
order of the State Forester, shall, upon finding by an appropriate circuit court, be assessed
a civil penalty of not more than $10,000 for each day of violation. Each day of violation
shall constitute a separate offense. All civil penalties under this subsection shall be
recovered in a civil action brought by the Attorney General in the name of the
Commonwealth.
The civil penalties provided for in this subsection may, in the discretion of the court,
be directed to be paid into the treasury of the county, city or town in which the violation
occurred, to be used for the purpose of protecting or preserving nontidal wetland
resources therein in such manner as the court may, by order, direct.
E. Any person who willfully violates or refuses, fails or neglects to comply with any
regulation or order of the State Forester, any condition of a permit, or any provision of
this article shall be guilty of a Class 1 misdemeanor.
Article 6.
Nontidal Wetlands.
§ 10-262.1. Definitions.—As used in this article:
"Adversely affect" means to substantially impair the ability of a wetland to function
for water quality protection, flood protection, or aquifer recharge.
"Department" means the Department of Conservation and Historic Resources.
"Director" means the Director of the Department of Conservation and Historic
"Nontidal wetland" means an area adjacent to state waters, or isolated areas which are greater than one acre in size, not otherwise regulated under Title 62.1, Chapter 2.1 of this Code, that (i) has hydric soils as defined by the U.S. Soil Conservation Service for Virginia; (ii) is recurrently inundated or saturated with surface or ground water and exhibits hydrology as expressed by the U.S. Army Corps of Engineers Wetlands Delineation Manual; and (iii) supports a prevalence of vegetation identified as wetland plants in Virginia by the U.S. Fish and Wildlife Service in its publication Wetlands Plants of the State of Virginia. Nontidal wetlands may include but are not limited to bogs, marshes, and swamps, but shall not include backwater areas unintentionally created by roadway fills.

"State waters" means all waters on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction.

§ 10-262.2. Application of article.—This article shall only apply to activities affecting nontidal wetlands and agricultural activities affecting tidal or nontidal wetlands in the following jurisdictions: the Counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland, and York; and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach and Williamsburg.

§ 10-262.3. Additional powers and duties of the Director.—In addition to other powers, duties and responsibilities, the Director shall have the power to:
1. Establish a program for the regulation of activities that may adversely affect nontidal wetlands;
2. Promulgate regulations for the protection of nontidal wetlands and the mitigation of adverse effects of activities upon them;
3. Maintain an inventory of nontidal wetland areas with descriptions of size, function and presence of wildlife and vegetation with the assistance of other agencies;
4. Consult with other agencies regarding the protection of nontidal wetlands, water quality and habitat;
5. Coordinate the regulatory process for the permitting of activities in nontidal wetlands with any federal, state, or local agency that may have jurisdiction;
6. Pursue the assumption of federal authority for regulation of nontidal wetlands in the Commonwealth;
7. Conduct public hearings on permit decisions at the request of the applicant, the owner of the property for which a regulated activity is proposed, or other interested party, or at his discretion, regarding the approval of permits;
8. Provide technical assistance to localities and promote awareness of nontidal wetland functions and of the requirements of this article; and
9. Take all actions to correct violations of this article and to institute legal proceedings to recover the costs thereof from the responsible party.

§ 10-262.4. Standards for allowable uses and activities in nontidal wetlands.—A permit shall be granted by the Director if the Department finds that (i) there will be no significant adverse affect to the public health or the environment, particularly considering the protected functions of wetlands or (ii) the granting of a permit hereunder is necessary and consistent with the public interest, considering all material factors.

§ 10-262.5. Permits required for certain activities; issuance of permits by the Department.—A. After March 31, 1989, a permit from the Director shall be required for any activity not specifically exempted by statute or regulation and proposed in or anticipated to adversely affect a nontidal wetland.
B. An application for the permit shall include a description of the site and proposed...
activity as may be prescribed through regulation or requested by the Department.

C. If the Director fails to act on the permit application within sixty days after the receipt of a completed application, or within ninety days if a public hearing has been conducted, the permit shall be deemed approved.

D. The Director may require a nonrefundable fee to recover the reasonable administrative costs of processing the permit application and a reasonable performance bond with surety, cash escrow, letter of credit, or any combination thereof to ensure satisfactory performance of the plan or permit.

E. The Director may suspend or revoke a permit if he finds that the applicant has failed to comply with the terms, conditions, or limitations set forth in the permit or application, or has misrepresented the site or proposal in the application.

F. Any state agency that proposes to undertake a project involving a nontidal wetland shall demonstrate consistency with the requirements of this article for nontidal wetland protection to the Director's satisfaction.

§ 10-262.6. Exempted activities.—A. The following uses of and activities in nontidal wetlands are exempted from permit requirements established in this article, provided that such uses or activities do not adversely affect the nontidal wetland:

1. Construction and maintenance of piers, boat shelters, duckblinds and other structures that do not impede the flow of water and do not require removal of vegetation covering more than 200 square feet;

2. Outdoor recreational activities, including but not limited to hiking, boating, hunting and fishing;

3. The normal maintenance or repair to an existing road, highway, railroad bed, ditch on any person's property that abuts, surrounds, or crosses a nontidal wetland;

4. The construction, maintenance or repair of new or existing public utility lines, including water, sewer, electrical, natural gas, or telephone lines; and

5. Other uses or activities as defined by the Department.

B. Other exemptions from the permit requirements established in this article include:

1. Agricultural and horticultural activities, including the grazing of livestock, consistent with § 10-262.9 which do not convert existing nontidal wetlands to agricultural or other uses;

2. The construction and maintenance of farm ponds or recreational ponds which result in the loss or impairment of less than one acre of nontidal wetlands;

3. The construction and maintenance of farm ponds that adversely affect between one and five acres of nontidal wetlands shall comply with standards promulgated by the Department in consultation with the Department of Agriculture and Consumer Services;

4. Silvicultural activities in nontidal wetlands that follow the provisions of § 10-53.6; and

5. Reestablishment of agricultural activities on land that has been historically utilized for agricultural production as determined by the Director, when such reestablishment is consistent with § 10-262.9.

C. Nothing in this article shall affect (i) any project in nontidal wetlands commenced prior to April 1, 1989; however, this article shall not be deemed to exclude from regulation under this article any activity which expands or enlarges upon a project already in existence or under construction at the time of such date, except as otherwise provided under subdivision A3 of § 10-262.6; or (ii) any project or development in nontidal wetlands for which, on April 1, 1989, a building permit is valid, or prior to April 1989 a plan or plan of development thereof has been approved pursuant to an ordinance or other lawful enactment with either an agency of the federal or state government, or with either the planning commission, board of supervisors, or city council of the jurisdiction in which the project or development is located. For exemptions herein to be effective the project or development must be certified as exempt by the Department. The request for certification must be filed with the Department by January 1, 1990.

§ 10-262.7. Local review.—Before issuing a permit or granting approval for use of or an
activity in a nontidal wetland, the Director shall forward a copy of the permit application to the governing body or chief executive officer of each locality wherein lies the nontidal wetland and request comments within 30 days as to consistency with local ordinances.

§ 10-262.8. Counties, cities and towns authorized to administer permitting; terms of certification.—A. Any county, city or town that complies with certification requirements established by the Department may administer the protection of nontidal wetlands. The Director shall delegate the administration of his powers and duties under this article if he certifies that such county, city or town has established and is able to administer a nontidal wetland protection program consistent with the requirements of this article. Failure of the county, city or town to remain in compliance with the requirements of this article shall result in the Director's rescission of delegation.

B. The Director shall recertify the local authority whenever a substantial change relevant to the local administration occurs, provided it fulfills certification requirements, or within four years of such certification or subsequent recertification.

C. Any person proposing to use or conduct an activity in a nontidal wetland within a county, city or town with a program certified by the Director shall make application and seek approval from the local administering body.

§ 10-262.9. Agricultural activities.—All agricultural activities that may adversely affect tidal or nontidal wetlands shall use Best Management Practices for nontidal and tidal wetlands protection as promulgated by the Department in consultation with the Department of Agriculture and Consumer Services.

For the purposes of this article, “tidal wetland” means “vegetated wetlands” and “nonvegetated wetlands,” as those terms are defined in § 62.1-13.2.

§ 10-262.10. Site inspection.—Upon presentation of appropriate credentials and with the consent of the land owner, operator or permit holder, the Director or agent of the locality administering a certified program may enter at any reasonable time onto any property to determine compliance with the requirements of this article and any regulations promulgated thereunder, permit conditions or order issued. The owner, occupier or operator shall be given an opportunity to accompany the Director.

If the Director or the chief administrative officer of the locality administering a certified program determines that there is a failure to comply, he shall serve a notice to comply upon the person who is responsible for complying with the requirements of this article at the address specified in the permit application. A copy of such notice shall also be served by certified mail to the land owner or operator or by delivery at the site of the activity to the person supervising such activity and designated in the permit to receive such notice. Such notice shall set forth the measures needed for compliance and the time within which the measures shall be completed. Failure to comply within the specified time period may be deemed a violation of this article.

§ 10-262.11. Adherence to approved plans and specifications.—Upon receipt of a sworn complaint of a substantial violation of this article from a designated enforcement officer, the Director or the chief administrative officer of the locality administering a certified program may, in conjunction with or subsequent to a notice to comply, issue an order requiring that all or part of the activities at the site adversely affecting wetlands be stopped until the specified corrective measures have been taken. Where the alleged noncompliance is causing, or is in imminent danger of causing, significant harm to nontidal wetlands or their function, such an order may be issued without regard to whether the permittee has been issued a notice to comply as specified in § 10-262.10. The order shall remain in effect for a period of seven days from the date of service, pending application by the enforcing authority, permit holder, person on whom the order is served, or the property owner for appropriate relief to the circuit court of the jurisdiction wherein the violation was alleged to have occurred. Upon completion of corrective action, such order shall immediately be lifted. Nothing in this section shall prevent the Director from taking any other enforcement action specified in this article.

§ 10-262.12. Appeals.—Any party aggrieved by a decision of the Department or a local governing body acting pursuant to § 10-262.8, made without a formal hearing, may
demand a formal hearing. Any appeal of a decision of a local governing body shall lie to
the Department and shall be subject to the permit standards established by that local
governing body.
§ 10-262.13. Penalties and enforcement.—A. With the consent of any person who
violates or fails, neglects, or refuses to obey any regulation or order of the Department or
Director, any condition of a permit, or any provision of this article, such person may be
required, in an order issued by the Director after hearing against such person, to pay civil
penalties in specific sums, not to exceed $1,000 per day for each violation or failure,
neglect, or refusal to obey. Each day of violation shall constitute a separate offense.
Payment of the civil penalties shall be in lieu of any sanction that may be imposed under
subsections B, C and D herein.
B. Any person who violates or fails, neglects, or refuses to obey any lawful regulation
or order of the Department or the Director, any condition of a permit, or any provision of
this article may be compelled in a proceeding instituted in a court of appropriate
jurisdiction to obey such regulation, permit, certification, order, or provision of this article
and to comply therewith by injunction, mandamus, or other appropriate remedy.
C. The Department shall have the option of requiring compliance or electing to correct
violations and recover the costs thereof from the responsible party.
D. Any person who knowingly violates any provision of this article, any condition of a
permit or any regulation or order of the Department or the Director shall, upon finding by
an appropriate circuit court, be assessed a civil penalty of not more than $10,000 for each
day of violation. Each day of violation shall constitute a separate offense. All civil
penalties under this subsection shall be recovered in a civil action brought by the Attorney
General in the name of the Commonwealth.
The civil penalties provided for in this subsection may, in the discretion of the court,
be directed to be paid into the treasury of the county, city or town in which the violation
occurred to be used for the purpose of protecting or preserving nontidal wetlands therein
in such manner as the court may, by order, direct.
E. Any person who willfully violates or refuses, fails or neglects to comply with any
regulation or order of the Department or the Director, any condition of a permit, or any
provision of this article shall be guilty of a Class I misdemeanor.