



US Army Corps
of Engineers
Waterways Experiment
Station

②

Containment Area Aquaculture Program

Legal and Institutional Constraints on Aquaculture in Dredged Material Containment Areas

by *Sylvia Robertshaw, Richard J. McLaughlin*
University of Mississippi Law Center

Donald Love
Paul M. Hebert Law Center

DTIC
SELECTE
JUN 29 1993
S B D

Approved For Public Release; Distribution Is Unlimited

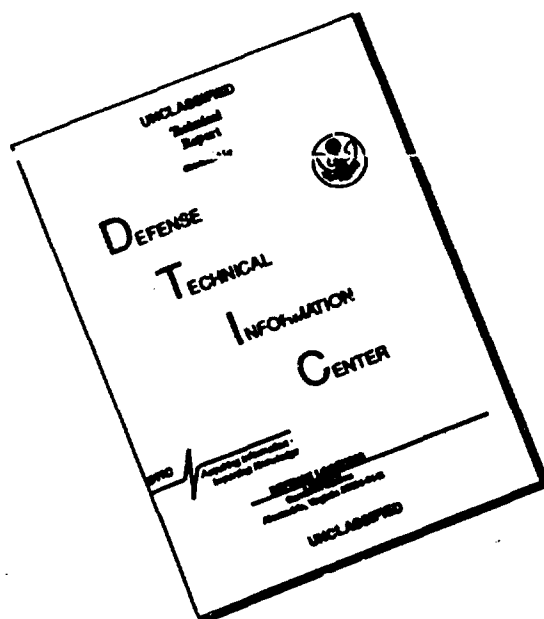
93-14761



204PS

93 6 29 024

DISCLAIMER NOTICE



**THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE COPY
FURNISHED TO DTIC CONTAINED
A SIGNIFICANT NUMBER OF
PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.



PRINTED ON RECYCLED PAPER

Legal and Institutional Constraints on Aquaculture in Dredged Material Containment Areas

by Sylvia Robertshaw, Richard J. McLaughlin

Mississippi-Alabama Sea Grant Legal Program
University of Mississippi Law Center
Oxford, MS 38655

Donald Love

Louisiana State University Sea Grant Legal Program
Paul M. Hebert Law Center
Baton Rouge, LA 70803

Final report

Approved for public release; distribution is unlimited

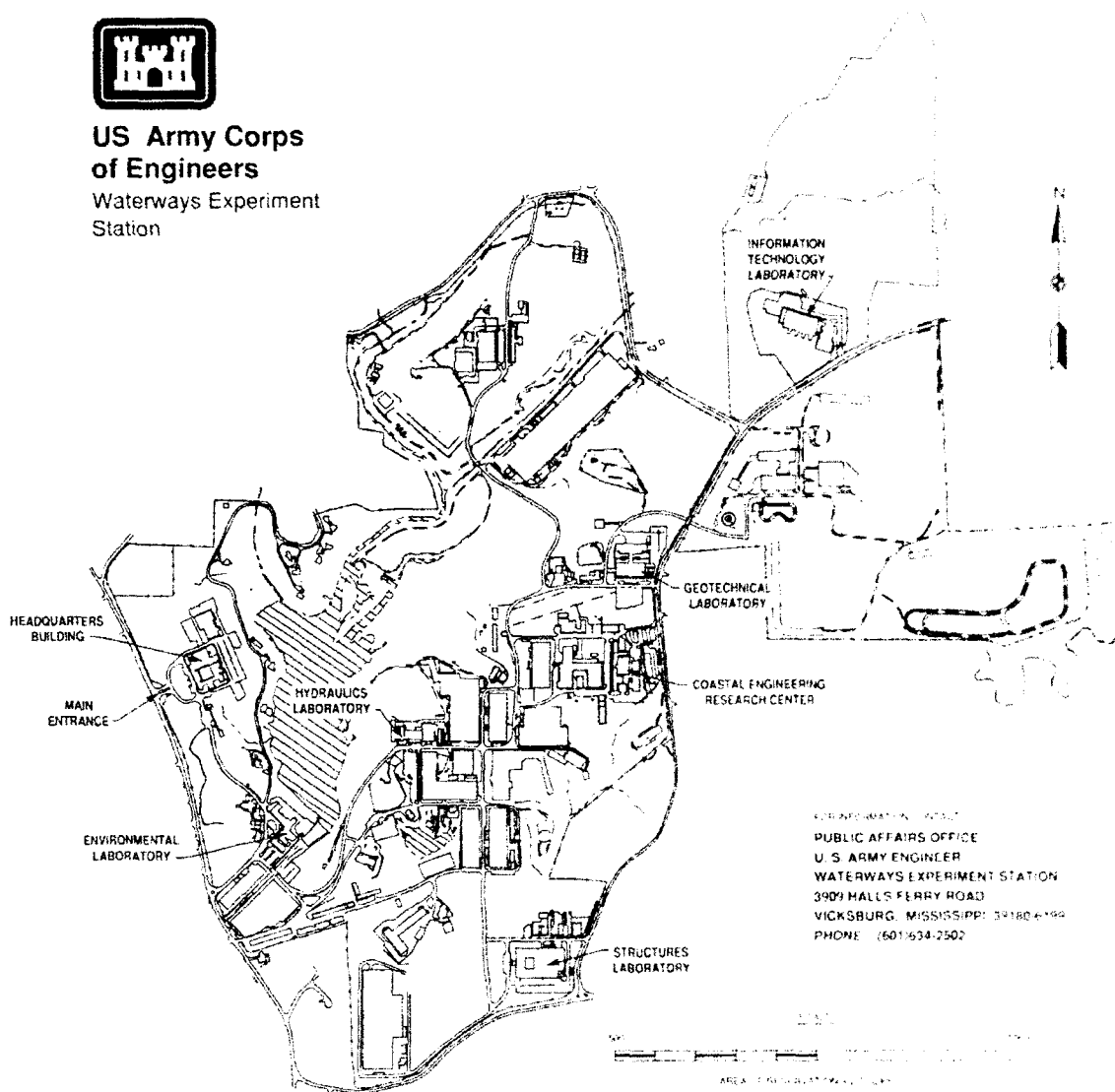
Prepared for U.S. Army Corps of Engineers
Washington, DC 20314-1000

Under National Sea Grant Program No. NA90 AA-D-SG711

Monitored by Environmental Laboratory
U.S. Army Engineer Waterways Experiment Station
3909 Halls Ferry Road, Vicksburg, MS 39180-6199



**US Army Corps
of Engineers**
Waterways Experiment
Station



FOR INFORMATION CONTACT
PUBLIC AFFAIRS OFFICE
U.S. ARMY ENGINEER
WATERWAYS EXPERIMENT STATION
3909 HALLS FERRY ROAD
VICKSBURG, MISSISSIPPI 39180-6199
PHONE (601) 634-2502

Waterways Experiment Station Cataloging-in-Publication Data

Robertshaw, Sylvia.

Legal and institutional constraints on aquaculture in dredged material containment areas / by Sylvia Robertshaw, Richard J. McLaughlin, Donald Love ; prepared for U.S. Army Corps of Engineers ; monitored by Environmental Laboratory, U.S. Army Engineer Waterways Experiment Station.

202 p. : ill. ; 28 cm. — (Technical report : EL-93-7)

Includes bibliographical references.

1. Dredging — Environmental aspects — Law and legislation — United States. 2. Aquaculture — Law and legislation — United States. 3. Dredging spoil — Environmental aspects. 4. Spoil banks — Environmental aspects. I. McLaughlin, Richard J. II. Love, Donald. III. United States. Army. Corps of Engineers. IV. Containment Area Aquaculture Program. V. U.S. Army Engineer Waterways Experiment Station VI. Title. VII. Series: Technical report (U.S. Army Engineer Waterways Experiment Station) : EL-93-7.

TA7 W34 no.EL-93-7

CONTENTS

Preface	4
Introduction	7
A. Development of CAAP: Background	7
B. Organization and Format of Parts and Chapters of This Report	8
C. How to Use Part One	9
PART ONE: REGULATORY FRAMEWORK FOR CONTAINMENT AREA AQUACULTURE; AN OVERVIEW	11
Chapter 1: Federal Regulation of Dredged Material Disposal in Containment Areas	11
Introduction	11
A. Section 404 of the Clean Water Act	11
B. National Environmental Policy Act (NEPA)	15
C. Section 401 of the Clean Water Act	16
D. Coastal Zone Management Act (CZMA)	17
E. Other Federal Laws and Executive Orders that Might Apply	18
Chapter 2: State Regulation of Dredged Material Disposal in Containment Areas	22
Introduction	22
Narratives ¹ The Model States	24
A. Alabama	24
B. Florida	27
C. Louisiana	33
D. Maryland	36
E. South Carolina	39
F. Texas	42
Chapter 3: Federal and State Regulation of Aquaculture in DMCAs: A Permit Guide	46
Introduction	46
A. Federal	46
B. Alabama	51
C. Florida	55
D. Louisiana	74

¹Each narrative discusses key features of that model state's regulatory system in the following areas:

- I. Land Protection and Management
 - A. Coastal Land and Wetland Protection
 - B. Public Lands
 - C. Land Use Planning
- II. Water Resource Protection
 - A. Water Quality
 - B. Water Management
 - C. Levee Construction
- III. Biological Resource Protection.

DPIC QUALITY INSPECTED 2

Accession For	
NTIS - ERSET	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
(Avail and/or	
Dist	Special
A-1	

E. Maryland	83
F. South Carolina	88
G. Texas	96
H. Permit Streamlining and Coordination	109
1. Regulatory Systems Streamlining	109
2. Coordinating Permit Applications When No System-Wide Streamlining Procedures Are in Place	110
PART TWO: LEGAL QUESTIONS RAISED BY CONTAINMENT AREA AQUACULTURE	112
Chapter 4: Duties, Responsibilities, and Potential Legal Questions in a Containment Area Aquaculture Facility	112
Introduction	112
Issue-by-Issue Discussion of Legal Questions:	113
A. Chemical Suitability and Soil-Testing Issues	113
1. Uncertainty as to the Standard of Care	115
2. Institutional and Economic Pressures	121
B. Misrepresentation or Fraud	122
C. Waste by the Tenant or Easement-Holder	125
D. Private Nuisance	129
E. Contractual Issues	132
F. "Joint Venture" Vicarious Liability	133
Counter-Arguments or Defenses Available to the Corps of Engineers:	136
A. Introduction to Issues	136
B. "Discretionary Function" Immunity under the FTCA	138
C. Statutory Immunity for Flood Control Projects	141
D. Enforceability of "Hold Harmless" Agreements in Easements and Operating Agreements	143
E. Other Defenses Available to the Corps in Tort Actions	146
Chapter 5: User Documents and Drafting Checklists	148
Introduction	148
Substantive Provisions--A Checklist	149
Documents Needed	152
Introduction	152
A. Where Land is Privately Owned	153
B. Where Land is Owned by the State or the Local Sponsor	154
C. Where the Land is Federally Owned	156

FIGURES:

- Fig. 1. Where the Land is Privately Owned: Documents
Recommended for Establishment of CAAP
- Fig. 2. Where Land is Owned by the State or a Local Sponsor: Documents
Recommended for Establishment of CAAP
- Fig. 3. Where the Land is Federally Owned and the Corps is the Agency
Administering it: Documents Recommended for Establishment of
CAAP
- Fig. 4. Where the Land is Federally Owned and a Federal Agency other
than the Corps administers it: Documents Recommended for
Establishment of CAAP

TABLE:

Table 1: List of Acronyms

APPENDIXES:

App. A:	State Regulation of Dredged Material Disposal in the Model States	A1
App. B:	Sample Easements from Landowners to Local Sponsors or the Corps of Engineers	B1

PREFACE

The U.S. Army Corps of Engineers funded preparation of this report as part of its Containment Area Aquaculture Program (CAAP), in cooperation with the Mississippi-Alabama Sea Grant Consortium. This work is a result of research sponsored in part by National Oceanic and Atmospheric Administration, National Sea Grant College Program, U.S. Department of Commerce, under Grant No. NA90 AA-D-SG711. The Mississippi-Alabama Sea Grant Consortium and the Corps of Engineers are authorized to produce and distribute reprints of this report for information and governmental purposes notwithstanding any copyright notation that may appear hereon.

This report is one of a series of reports² designed to transfer CAAP technology to the Corps, dredging project sponsors, landowners, management agencies, and the aquaculture industry--potential participants in the establishment of an aquaculture operation on a dredged material containment area (DMCA). Preparation of this report was made possible by funding from the U.S. Army Corps of Engineers, through special arrangement with the Mississippi State University Cooperative Extension Service/Sea Grant Advisory Service in cooperation with the Mississippi-Alabama (MS-AL) Sea Grant Legal Program (located at the University of Mississippi Law Center) and the Louisiana State

²Other reports in the series include:

C-K Associates, Inc. In Press. "The Economics and Marketing of Aquaculture in Dredged Material Containment Areas." Technical Report. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Coleman, R., Konikoff, M., and Dugger, D. In Press. "Containment Area Aquaculture Pond Operations." Technical Report. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Homziak, J., Veal, C. D., and Hayes, D. In Press. "Design and Construction of Dredged Material Containment Areas for Aquaculture." Technical Report. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Tatem, H. E. 1990. "Determination of the Chemical Suitability of a Dredged Material Containment Area for Aquaculture." Technical Report EL-90-12. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Wilson, J., Homziak, J., and Coleman, R. E. In Press. "Site Selection, Acquisition, and Planning for Aquaculture in Dredged Material Containment Areas." Technical Report. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

University (LSU) Sea Grant Legal Program (located at the Paul M. Hebert Law Center at LSU). The grant was funded in October 1990.

CAAP was organized to demonstrate the feasibility of colocating DMCA's with aquaculture ponds. A demonstration project in Brownsville, TX, showed such operations are compatible. This document examines various legal issues associated with a joint DMCA/aquaculture venture. Program Managers for the CAAP were Richard Coleman and Dave Nelson of the Environmental Laboratory at the U.S. Army Engineer Waterways Experiment Station (WES). Principal authors of the report are Sylvia Robertshaw, Staff Attorney, MS-AL Sea Grant Legal Program, and Donald Love, Attorney/Research Associate, LSU Sea Grant Legal Program. The Project Director is Richard McLaughlin, Director of the MS/AL Sea Grant Legal Program. James G. Wilkins, Attorney/Research Associate and Principal Investigator, LSU Sea Grant Legal Program and Jurij Homziak, with the Sea Grant Advisory Service, Mississippi Cooperative Extension Service, also assisted in supervising the production of this report.

Grateful acknowledgement is made to the following law students who worked as research assistants on this project at the University of Mississippi School of Law, and who contributed heavily to the legal research and investigation of the permit process: Ellen Peel (state permits and regulations governing disposal of dredged material); Aden McDaniel (state law research on legal questions); and to those law student research assistants at the Paul M. Hebert Law Center at LSU: J. Rock Palermo, III (Maryland aquaculture permitting) and Tony Walker (Alabama aquaculture permitting). Thanks also to Ronnie Jackson and Sondra Simpson for other contributions to the legal research. Special thanks to Candy Knight for her work designing the charts and figures in the Appendixes, and for her patience with the revision process.

Finally, grateful acknowledgement is made to those persons in state and federal agencies who furnished information and explanations of the permit processes in both state and federal government. Their cooperation has been invaluable in collecting and presenting complex information to a general audience. Thanks is also given to those persons with the Corps of Engineers at the District and Division levels who helped clarify the authors' understanding of the DMCA permit process and legal issues that might arise when the disposal of dredged material takes place on the same premises as the operation of an aquaculture facility: Richard Coleman and Dave Nelson (WES), Ken Chennault (Vicksburg District), Carlos Aguilar (Southwestern Division), Rick Medina and Herbie Maurer (Galveston District), and Henry Tatem (WES).

Thanks also to the helpful staff at the Aquaculture Information Center in Beltsville, MD, and the National Sea Grant Depository in Narragansett, RI, and to the librarians at the WES Library in Vicksburg and the New England Corps library. Finally, thanks also to Durwood Dugger and Dave Marschall for their help with background information at the beginning of this study.

At the time of publication of this report, Director of WES was Dr. Robert W. Whalin. Commander was COL Leonard C. Hassell, EN.

This report should be cited as follows:

Robertshaw, S., McLaughlin, R. J., and Love, D. (1993). "Legal and institutional constraints on aquaculture in dredged material containment areas," Technical Report EL-93-7, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

INTRODUCTION

A. Development of CAAP: Background

In the past two decades, the U.S. Army Corps of Engineers has relied more and more on confined or upland facilities for the disposal of dredged material.³ The reasons for this increased reliance on dredged material containment areas (DMCAs) have been well-documented elsewhere in this series of technical reports (e.g., Wilson et al.^{1,3}). The following passage from a paper presented at a recent dredging conference sketches out some of the pressures that have led to this:

Since enactment in 1969 of the National Environmental Policy Act (NEPA) with its requirement for environmental full disclosure (including, in this case, a detailed accounting of disposal alternatives), pressure for greater reliance on confined or on-land disposal of dredged material has increased significantly. At the same time, upland disposal sites are being rapidly depleted due to urbanization, agriculture, and utilization of available capacity in existing sites. Concerns for improvement and/or maintenance of water quality and protection of aquatic nursery and feeding areas [have caused] dredgers [to] generally turn[] their attention toward uplands, transferring the disposal problem from an aquatic to a land environment. Efforts to control land use have increased and intensified due to advancing urban sprawl, its attendant reduction in natural or open areas, and, even more recently, a heightened awareness of the socioeconomic and environmental impacts associated with uncontrolled development.⁴

Dredgers who do "turn[] their attention toward uplands" face increasing difficulties acquiring adequate disposal space for their dredged material, particularly in coastal areas, for several additional reasons:

- Dredging project sponsors have to compete with more profitable and more attractive surface uses when trying to persuade private landowners to grant them disposal easements.
- Dredged material disposal is perceived by the public as waste disposal.

³When deciding how to dispose of dredged material, the Corps has three basic choices: upland disposal, wetland disposal, and open water disposal. Constraints on open-water disposal have meant that the Corps resorts more and more to on-land disposal, and the chief purpose of the Containment Area Aquaculture Program is to facilitate upland disposal of dredged material in diked containment areas.

⁴Mathis, Dave. 1989. "Legal and Institutional Considerations for Federal (CE) Dredging Projects." In Course Manual Dredged Material Management: Engineering and Environmental Advances. US Army Engineer Waterways Experiment Station, 13-17 February 1989, Vicksburg, MS. The Mathis article sets forth helpful information about permits and compliance with federal environmental laws needed for dredged material disposal, and is a good resource for an overview of the federal regulatory framework.

•Leases or easements tend to tie up the land for long periods of time.⁵ These difficulties have led the Corps to search for innovative ways to help secure and retain access to real property suitable for upland DMCA's. The Corps has funded research into possible beneficial uses for DMCA's, and the CAAP constitutes one outgrowth of that research.

Among the beneficial uses the Corps has considered to assist the acquisition and retention of disposal sites is operation of an aquaculture facility. The CAAP grew out of these concerns for the continued availability of confined disposal space for the Corps' ongoing dredged material disposal needs. As has been explained in other technical reports in this series,⁶ the main purpose of the CAAP is to demonstrate the technical and economic feasibility of the concept of containment area aquaculture. It is hoped that the CAAP will facilitate the ability of the Corps and the local sponsor to secure additional acreage for new on-land DMCA sites by making them more competitive, vis-a-vis other potential parties seeking land in coastal areas. Landowners would potentially receive both easement payments from the Corps and local sponsors, but also rental payments from the aquaculturist, and enjoy the benefit of capital improvements on their property made by the Corps. This promise of greater revenues from their property (from the increased property value from the improvements and/or the lease payments) will make the Corps and local sponsors more competitive in the market for land uses, particularly in coastal areas.⁷

B. Organization and Format of Parts and Chapters of This Report

Part One consists of three chapters and is designed to give the reader an overview of the federal and state laws and regulations that may apply to the creation and operation of a Containment Area Aquaculture Facility (CAAF). These chapters are designed to outline the laws, regulations, and permit requirements that may apply when a CAAF is established. State regulations

⁵Homziak, J.H., Coleman, R.E., and Dugger, D. 1988. "Development and Operations of the Containment Area Aquaculture Program (CAAP) Demonstration Shrimp Farm," p. 4-2. In Proceedings of the Gulf of Mexico Regional Workshop on the Beneficial Uses of Dredged Material. Technical Report D-90-3. U.S. Army Engineer Waterways Experiment Station. Vicksburg, MS.

⁶See Footnote 2.

⁷Homziak, Coleman, and Dugger, "Development and Operations" at 4-3.

will be covered for only six states: Alabama, Florida, Louisiana, Maryland, South Carolina, and Texas. These states were selected because (1) they represent a variety of regulatory environments, (2) confined disposal of dredged material is already practiced there and it is anticipated that additional DMCAs will be needed in the future, and (3) aquaculture is a significant industry.

The organizational structure was chosen to emphasize the practical realities of the situation: the Corps by and large will secure its own authorizations for the disposal of dredged material; likewise the aquaculturist will be responsible for securing permits for the aquaculture functions that take place on the site.⁸ Although there will be ways to streamline the two processes (permit streamlining will be discussed later in this chapter), they will be treated as if they were discrete, divisible functions for purposes of organizing the information in this report. For these reasons, to the extent dredged material disposal is separate and discrete from aquaculture operation, they are treated separately.

Part Two of this report addresses the legal issues that may be raised by containment area aquaculture. These legal questions are often novel questions, since dredged material disposal and aquaculture have not taken place on the same site in the past. Chapter 4 discusses potential issues, and Chapter 5 makes suggestions for drafting the documents involved in a CAAF to accommodate the special circumstances created when the two functions coincide.

Table 1 lists the acronyms used throughout the report.

C. How to use PART ONE:

The chapters in Part One on federal and state regulation of CAAFs are intended only as a general guide to the various permit requirements, laws, and regulations that may apply to a CAAF. The specific steps needed to ensure compliance with federal and state laws will ultimately depend, of course, on the geographic location of the site, the soil type of the site, and the other site-specific considerations. The information below will provide a guide to the major federal and state agencies that may be involved in the permit

⁸For example, water intake structures will normally be exclusively used for the aquaculture function of the site, since dredged material will be placed on site already mixed with water. Thus permits governing water use and water intake devices will be covered in Chapter 3 (on aquaculture regulation), rather than in Chapters 1 and 2 (the dredged material disposal chapters).

process when a CAAF is begun. It also furnishes some general information concerning the federal and state laws that may apply to a CAAF. Given the frequency with which laws and regulations change, and peculiarities of any given CAAF, this guide should be consulted for informational purposes only and not relied upon for conclusive permit information or legal advice. It is recommended that a qualified attorney be consulted for site-specific legal recommendations and advice.

PART ONE: REGULATORY FRAMEWORK FOR CONTAINMENT AREA AQUACULTURE:
AN OVERVIEW

CHAPTER 1: FEDERAL REGULATION OF DREDGED MATERIAL DISPOSAL IN
CONTAINMENT AREAS

INTRODUCTION

Corps District personnel are familiar with the regulatory steps taken when a new upland DMCA is approved and no aquaculture is involved. The steps taken for a DMCA with aquaculture should be similar.⁹ This chapter sets forth federal laws and regulations and executive orders that should be reviewed to see whether they apply to a particular CAAF.

Several caveats should be noted. First, the list below is not intended to be exhaustive. Included are the federal laws most likely to be involved when the Corps seeks to establish an upland containment area aquaculture project. Second, the audience for this overview includes aquaculturists, landowners, and agency personnel, as well as Corps personnel who, because of the fragmented nature of the site selection and approval process in many Corps Districts, seldom get a glimpse of the "big picture." It is, therefore, necessarily general in focus to assist readers unfamiliar with the Corps' internal processes and how coordination with other federal agencies takes place.

FEDERAL STATUTES AND REGULATIONS GOVERNING DREDGED MATERIAL DISPOSAL ACTIVITIES AT CONTAINMENT AREA AQUACULTURE SITES:

A. SECTION 404 OF THE CLEAN WATER ACT:

The Corps of Engineers regulates the discharge of dredged material into waters of the United States under Section 404 of the Clean Water Act (CWA)¹⁰ (hereafter, "Section 404"). Section 404 prohibits "discharge of any pollutants into 'navigable waters of the U.S.' without a permit."¹¹ In

⁹For detailed comparison of the similarities and differences between a CAAP site and the DMCA site, see the Technical Reports in this series on site selection and site design.

¹⁰33 U.S.C. Section 1344. The Clean Water Act, 33 U.S.C. Section 1251, et seq., is also known as the Federal Water Pollution Control Act Amendments of 1972, 1977, and 1987. 33 C.F.R. Section 335.5(a) (1990).

¹¹33 U.S.C. Section 1344. The definitional section of this chapter of the United States Code defines the word "pollutant" to include "dredged spoil." 33 U.S.C. Section 1362(6).

general, when Section 404 is triggered, public notice and an opportunity for a public hearing are required before discharges of dredged material into waters of the United States may take place.

Section 404 applies to private parties who wish to deposit dredged material, as well as the disposal of dredged material by the Corps itself in connection with a channel maintenance or improvement project. Private parties must secure a permit from the Corps to dispose of the material; similarly, while the Corps does not literally issue itself a permit per se, it goes through similar regulatory steps before it may discharge dredged material into specified areas. Public notice and an opportunity for a public hearing are part of the Section 404 process for the Corps as well as private parties, as is coordination with other federal environmental agencies.

The specific regulatory steps that the Corps must take when it is the discharging entity appear in the regulations.¹² Thus, when the Corps' operations and maintenance activities involve the discharge of dredged material into waters of the United States, it must undertake an internal compliance process before the discharges may take place, including notice to and coordination with other federal and state agencies with interests in the environmental issues raised by the dredge disposal plans.

The threshold question with respect to the scope of Section 404 jurisdiction requires explanation of what navigable waters are included. The term "navigable waters" includes waters subject to the ebb and flow of the tide, interstate wetlands, and wetlands adjacent to navigable waters (including artificially created wetlands).¹³ The term "wetlands" is defined by both the regulations (promulgated by both the Corps and EPA) as consisting of "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."¹⁴

¹² 33 C.F.R. Part 335. This subpart also covers regulatory steps required by other federal environmental laws, such as NEPA.

¹³Leibesman, L. R. June 1990. "Clean Water Act's Section 404 Dredged and Fill Material Discharge Permit Program--Overview" at p. 1. In Conference Notes from Wetlands Law and Regulation, June 21-22, 1990, in Washington, D.C.

¹⁴This is the definition included both in the Corps regulations and in the Environmental Protection Agency's regulations. 33 C.F.R. Section 328.3(b) (Corps); 40 C.F.R. Section 230.41(a)(1) (EPA)(1990).

Although the Corps and the EPA have used the same regulatory definition of wetlands, "over the years, the agencies have developed very different methodologies for determining whether a given site is 'wetlands.'"¹⁵ In an attempt to remove the inconsistency, the Corps, the EPA, the Fish and Wildlife Service (FWS), and the Soil Conservation Service adopted a "Federal Manual for Identifying and Delineating Jurisdictional Wetlands," (hereafter, "Federal Manual") which became effective March 20, 1989. Due to a comprehensive public review and considerable controversy, the 1989 Manual has not been adopted. As of this printing, the 1987 Corps of Engineers Manual is presently being used for delineating jurisdictional wetlands. Due to the changing nature of this situation, parties should contact Corps regulatory offices for the latest information on identifying and delineating wetlands. This Federal Manual now serves as the technical basis for identifying and delineating wetlands, using three technical criteria: hydrology, hydrophytic vegetation, and hydric soils.

The adoption of the Federal Manual has two consequences for our purposes. First, with respect to the threshold question whether Section 404 is triggered, it may mean that some areas that would not have been included under previous definitions may now be considered wetlands under the Federal Manual. Second, the Federal Manual has yet, as of this writing, to be tested by the federal courts. Parties who object to the Corps wetlands determination based on the Federal Manual may well challenge the validity of the Manual on some procedural or constitutional ground.¹⁶ Thus while the question of the Federal Manual's criteria may once again become unsettled, in the meantime the Corps will continue to apply the criteria therein to the threshold determination whether Section 404 is triggered.

The Corps' determinations to authorize its own discharges of dredged material are based on the so-called "Section 404(b)(1) guidelines."¹⁷ The

¹⁵Liebesman, *supra*, at p. 2.

¹⁶As of early May 1991, only one federal litigant had in fact raised such an argument in reported decision. In McGown v. U.S., 747 F.Supp. 539, 542 (E.D.Mo. (1990)), the plaintiff argued that the Federal Manual was "void" because it was not "promulgated in accordance with the procedures set forth in the Administrative Procedure Act, 5 U.S.C. Section 553." However, the district court refused to address this argument because it was "beyond the scope of the pleadings."

¹⁷33 U.S.C. Section 1344(b); see 40 C.F.R. Sections 230.10(a)-(d).

criteria in the Section 404(b)(1) guidelines can be summarized in the private party context as follows:

A permit will be issued if (1) there is no practicable alternative; (2) there will be no significant adverse impacts on aquatic resources; (3) all reasonable mitigation is employed; and (4) there will be no statutory violations by the proposed activity. In applying these criteria, the permitting authority will consider the source and composition of the discharge material, the nature of the discharging activity, and the characteristics of the receiving water.¹⁸

When the Corps is the potential discharger, rather than a private party, "the Corps does not issue itself a CWA permit to authorize Corps discharges of dredged material [] into U.S. waters, but does apply the 404(b)(1) guidelines and other substantive requirements of the CWA and other environmental laws."¹⁹

Under Section 404(c), the EPA retains veto power as to the use of a specific site. If the EPA Administrator decides, after notice and a hearing and consulting with the Corps, "that the discharge of such materials into such areas will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreation areas," the discharge may be prohibited or restricted.²⁰

Finally, under Section 404(e) of the CWA, certain categories of activities occur more frequently, so that the activity may be authorized on a regional, statewide, or nationwide basis. Thus, instead of an individual permit or determination, the activity in question may fall within a general permit, a regional permit, or one of twenty-six nationwide permits. (The regulations governing Corps activities under Section 404 suggest that District Engineers are authorized to use existing general permits, including statewide, regional, and nationwide permits, for federal projects involving the disposal of dredged material.²¹) For example, nationwide permit number 16 may be useful for upland disposal sites because it covers return water from an upland containment area, provided the state has issued its water quality

¹⁸Malone, Linda A. 1990. Environmental Regulation of Land Use at 4-18-19. (Clark, Boardman looseleaf service)(footnotes omitted)

¹⁹33 C.F.R. Section 335.2 (1990).

²⁰33 C.F.R. Section 336.1(b)(5) (1990).

²¹33 C.F.R. Section 337.5 (1990).

certification under Section 401 of the CWA.²² "The return water or runoff from a contained disposal area is administratively defined as a discharge of dredged material 33 C.F.R. Section 323(d) even though the disposal itself occurs on the upland and thus does not require a Section 404 permit."²³

The regulations at 33 C.F.R. Part 336 also include the procedural steps the Corps takes to comply with other federal environmental laws, such as the National Environmental Policy Act (NEPA), the Coastal Zone Management Act (CZMA), and the National Pollution Discharge Elimination System (NPDES). These compliance requirements are discussed and summarized below. Additional detail about substantive standards and agency contacts appears in APPENDIX A.

B. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA):

NEPA²⁴ requires full disclosure and consideration of environmental impacts of Corps projects involving the discharge of dredged material. NEPA applies to all federal agencies engaged in "major" activities that "significantly affect[]" the environment.²⁵ As a practical matter, this means that, for each such project, an Environmental Impact Statement (EIS) or Environmental Assessment (EA) must be prepared.

An EIS is the more complex and more time-consuming document which should explore thoroughly the environmental consequences of a proposed Corps action "to the extent scientifically and practically feasible."²⁶ An EA, on the other hand, briefly discusses the need for the proposed action and alternatives to it. The EA also analyzes the adverse environmental impacts and the positive aspects of the proposed action.²⁷ Among the actions "normally" requiring an EA but not necessarily an EIS are "use of a new disposal area"

²²33 C.F.R. Section 330.5(a)(16) (1990); see pp. 15-16.

²³33 C.F.R. Section 330.5(a)(16).

²⁴42 U.S.C. Section 4321 et seq.

²⁵42 U.S.C. Section 4332(C).

²⁶Mathis, "Legal and Institutional Considerations" at 6. According to Mathis, the formal interagency coordination process that the EIS entails usually takes over a year to complete, and generates a record of decision on the proposed action.

²⁷Id. at 6.

not already covered in the overall project EA or EIS.²⁸ The EA must be accompanied by a finding of no significant impact (FONSI) detailing reasons why an EIS is not required. Mathis estimates that the EA for "[m]ost beneficial use activities" may be prepared in "about two weeks."

The regulations promulgated under NEPA²⁹ list several categorical exclusions from the NEPA requirements. However, the exclusion for "minor maintenance dredging using existing disposal sites"³⁰ would usually not apply here, since CAAP was designed to facilitate acquisition of additional disposal acreage, rather than conversion of existing disposal sites. Even if an activity falls within one of the categorical exclusions in the regulations, "extraordinary circumstances" may exist which mandate preparation of an EA or EIS.³¹

C. SECTION 401 OF THE CLEAN WATER ACT:

Under Section 401 of the Clean Water Act³², the Corps secures a certification from the appropriate state agency that its discharges of dredged material do not violate state water quality standards. Dredged material is considered a type of point source pollution³³ and is therefore subject to regulation by the Environmental Protection Agency (EPA). States set their own water quality standards under Section 303, subject to the EPA's minimum standards and review.³⁴ Early in the Section 404 compliance process, the

²⁸33 C.F.R. Section 230.7(d)(1990).

²⁹33 C.F.R. Section 230.9. 33 C.F.R. Part 230 were promulgated by the Corps and set out the procedures for implementing NEPA with respect to the Corps Civil Works Projects. These regulations supplement other NEPA regulations found at 40 C.F.R. Parts 1500 to 1508. These latter regulations were promulgated by the Council on Environmental Quality (CEQ), the federal agency charged with administering NEPA. (Want Section 6.12[4][a] at 6-32)

³⁰33 C.F.R. Section 230.9(c)(1990).

³¹33 C.F.R. Section 230.9 (1990).

³²33 U.S.C. Section 1341. 33 C.F.R. Section 336.1(b)(3) and (b)(8) discuss the Section 401 water quality certification process and its coordination with the process of securing Section 404 approval and compliance with other federal statutes.

³³33 U.S.C. Section 1362(6) defines "pollutant" to include "dredged spoil."

³⁴33 U.S.C. Section 1313.

District Engineer evaluates the water quality impacts of a proposed project, then files a request with the appropriate state agency for a so-called 401 water quality certification. The Corps submits a copy of its Section 404 public notice as well as data to demonstrate compliance with the state's water quality standards.³⁵ (This information may be included in the Corps Section 404(b)(1) evaluation.³⁶)

The state must take final action on the request for water quality certification within 2 months of the date of initial request, unless the state agency during that period requests an extension of time. If the state does not take final action on a request for certification within the 2-month period and fails to request an extension, then the District will notify the state of its intention to presume a waiver of the water quality certification requirement. The total time period in which the state must act on a water quality certification request should not exceed 6 months from the date of the initial request, and waiver of water quality certification can be conclusively presumed after 6 months from the date of the initial request.³⁷

D. COASTAL ZONE MANAGEMENT ACT (CZMA):

Section 307 of the CZMA requires that certain activities "directly affecting the coastal zone" that are conducted or supported by a federal agency, or federal development projects in the coastal zone, be consistent with the federally approved state management plans "to the maximum extent practicable."³⁸ This requirement constitutes "[a] major incentive" for states to adopt coastal plans.³⁹ When the Corps is involved in an Army civil works operations and maintenance project, regulations prescribe the steps to

³⁵33 C.F.R. Section 336.1(b)(8) (1990); if the disposal activity runs afoul of state water quality standards, the District Engineer "will work with the state to acquire data to satisfy compliance" with those standards. Id.

³⁶33 C.F.R. Section 336.1(b)(8)(i).

³⁷33 C.F.R. Section 336.1(b)(8)(iii) (1990).

³⁸16 U.S.C. Section 1456(a).

³⁹Malone Section 2.03[6][a] at 2-24. In return, states must consider federal input when devising their state's coastal plan.

be taken to secure consistency determinations in coordination with the Section 404 process.⁴⁰

Just as the Corps has to secure a state water quality certification, it must comply with similar procedural steps in order to secure the appropriate state agency's concurrence in its determination that "the proposed activity complies with the state's [coastal plan] and that such activity will be conducted in a manner consistent with the program."⁴¹ The District Engineer should seek this concurrence early in the Section 404 compliance process with respect to activities subject to the coastal plan. The burden of proof to establish consistency is on the federal agency.⁴²

Once the District Engineer has submitted its consistency determination for review, along with the Section 404 public notice and additional documentation, the state agency must respond within 45 days, or request an extension. The entire period from the date of the initial consistency determination to the date of final action by the state should not exceed 6 months.⁴³ For more detailed information about procedures and contact agencies in the model states, please refer to APPENDIX A.

E. OTHER FEDERAL LAWS AND EXECUTIVE ORDERS THAT MIGHT APPLY:

Although there are over 30 federal laws and presidential Executive Orders (EOs) that may apply to Corps dredging and dredged material disposal activities, "documentation or public coordination is only required when such activities fall within the specific jurisdiction of a law or EO."⁴⁴ Often compliance can be demonstrated by "little more than a sentence or two in the NEPA document."⁴⁵ Not all of the laws listed below will apply to every CAAF. However, early in the planning and site selection stage, care in determining whether the law applies and what effect its application may have can save

⁴⁰33 C.F.R. Section 336.1(b)(9) (1990).

⁴¹16 U.S.C. Section 1456(3)(A).

⁴²Conservation Law Foundation v. Watt, 560 F.Supp. 561, 572 (D.Mass. 1983).

⁴³16 C.F.R. Section 336.1(b)(9)(iv).

⁴⁴Mathis at 3; many of the Executive Orders mentioned below are discussed by Mathis in his article.

⁴⁵Id.

considerable time and effort later on, since certain activities may be discouraged or even prohibited by the law.

•Coastal Barrier Resources Act (CBRA)⁴⁶ "restricts new federal assistance or expenditures" for certain activities that promote development within listed coastal areas. It was adopted in 1982 (and its coverage expanded in 1988 and 1990) in part to promote preservation of the coastal barriers' natural resources by ending federal subsidies and assistance to developers in these areas. CBRA does not bar development outright; rather it, removes subsidies from those developers.⁴⁷

With respect to the areas covered by the model states, as of this writing, the CBRA included both Gulf of Mexico and Atlantic coastal barriers, as well as large areas of the Florida Keys and the Boca Chica wetlands in Texas.⁴⁸ However, the act includes an exemption for maintenance of existing improvements, including the disposal of dredged material.⁴⁹

•National Historic Preservation Act (NHPA)⁵⁰ requires that a federal agency consult the state historic preservation authority to determine whether significant historic structures or archaeological sites (cultural resources) will be affected by that project. This and other cultural resource laws require the advisory council on historic preservation to review Corps activity to determine the effect upon property listed in or eligible for listing in National Register of Historic Places.⁵¹ The council normally acts through state preservation agencies to review proposed activity. Related legislation concerning cultural resource preservation includes American Indian Religious Freedom Act of 1978, Antiquities Act of 1906, Archaeological Resources

⁴⁶16 U.S.C. Sections 3501-3510.

⁴⁷Weber, M., Townsend, R. T., and Bierce, Rose. 1990. Environmental Quality in the Gulf of Mexico at p. 63. Center for Marine Conservation and Environmental Protection Agency, Washington, D.C.

⁴⁸Id. at 63-64.

⁴⁹16 U.S.C. Section 3505(2).

⁵⁰16 U.S.C. Section 470a et seq.

⁵¹Mathis at 6.

Protection Act of 1979, Historic Sites Act of 1935, and Reservoir Salvage Act of 1960.⁵²

• Endangered Species Act⁵³ provides generally that federal agencies may not take actions that jeopardize the continued existence of endangered species, and threatened species as designated in the act, nor their critical habitat.⁵⁴ It is administered primarily by the U.S. Fish and Wildlife Service (FWS), with help from the National Marine Fisheries Service (NMFS). If threatened or endangered species or habitat are located in the vicinity of a project, the Corps must consider whether protections afforded by the Endangered Species Act will be triggered.

• Fish and Wildlife Coordination Act⁵⁵ requires the Corps to "coordinate its activities with both federal and state fish and game agencies and fully consider their recommendations" in reaching decisions.⁵⁶ Through the consultation process, the Corps must consider "ways to prevent the[] direct and indirect loss and damage [of fish and wildlife resources] due to the proposed operation and maintenance activity."⁵⁷ The FWS has announced that it intends to help implement President Bush's goal of "no net loss" of wetlands by implementing a three-pronged approach, including (1) wetlands protection, (2) wetlands restoration, enhancement, and management, and (3) wetlands research, information, and education.⁵⁸

• Wild and Scenic Rivers Act⁵⁹ provides protection of designated wild and scenic rivers. The Corps must determine whether its proposed dredged material disposal activity will affect any areas or rivers named in the act or

⁵²Mathis at 6.

⁵³16 U.S.C. Section 1531, et seq.

⁵⁴See 16 U.S.C. Section 1536(1).

⁵⁵16 U.S.C. Section 661, et seq.

⁵⁶Mathis at 7.

⁵⁷33 C.F.R. Section 336.1(b)(8)(i). The consultation process requires District Engineers to use a public notice and consult with personnel in both the FWS and the NMFS as well as state fish and wildlife officials.

⁵⁸FWS Action Plan "Wetlands: Meeting the President's Challenge." November 29, 1989. Included in Conference Materials, Wetlands Law and Regulation June 21-22, 1990.

⁵⁹16 U.S.C. Section 1271, et seq.

later included within the act's jurisdiction in an impermissible fashion.⁶⁰ APPENDIX A contains additional information about wild and scenic rivers in the model states.

•Estuary Protection Act⁶¹ requires the Corps to consider potential impacts on estuaries and their natural resources when planning activities in designated estuaries. The program is designed to protect and improve water quality of those estuaries threatened by overdevelopment and pollution. The program is administered by the EPA and includes, as of this writing, designated estuaries in the following areas of the model states:

- Sarasota Bay, Florida
- Galveston Bay, Texas
- Tampa Bay, Florida
- Barataria-Terrebonne Estuarine Complex, Louisiana⁶²
- Executive Orders that may apply:

•EO 12372, entitled "Intergovernmental Review of Federal Programs,"⁶³ is intended to provide state and local officials with the chance to consult with federal agencies like the Corps when federal activities are proposed.⁶⁴

•EO 11990, entitled "Protection of Wetlands,"⁶⁵ prohibits construction in wetlands unless no practical alternative exists. It requires the Corps to give an opportunity for public review of proposals for construction in wetlands.

•EO 11988, entitled "Floodplain Management,"⁶⁶ requires evaluation of the potential effect of Corps actions on floodplain areas. Corps personnel suggest that compliance with this EO may be demonstrated by a statement in the NEPA document.⁶⁷

⁶⁰33 U.S.C. Section 336.1(b)(7).

⁶¹16 U.S.C. Section 1221 (?).

⁶²Weber, et al., Environmental Quality at 94.

⁶³47 FR 3959, July 14, 1982.

⁶⁴Mathis at 4.

⁶⁵43 FR 26961 (May 24, 1977)

⁶⁶42 FR 26951 (May 24, 1977).

⁶⁷Mathis at 3.

•EO 11593, entitled "Protection and Enhancement of the Cultural Environment,"⁶⁸ requires the Corps to take into account NEPA and laws designed for the protection of cultural resources when making development plans.⁶⁹

⁶⁸36 FR 8921 (May 13, 1971).

⁶⁹Mathis at 5.

CHAPTER 2: STATE REGULATION OF DREDGED MATERIAL DISPOSAL IN CONTAINMENT AREAS

INTRODUCTION

Having discussed the federal regulatory system potentially applicable to containment area aquaculture, we turn our attention to the state regulatory systems. Both federal and state agencies will be involved in the permit process, because the systems overlap somewhat.⁷⁰ Federal agencies regulate certain activities because the Constitution gives Congress exclusive power over interstate commerce.⁷¹ For example, the Corps' authority to maintain navigable waterways for commerce and navigation is rooted in the federal commerce power.⁷² Under the doctrine of navigational servitude,⁷³ the Corps is charged with responsibility for maintaining waterways for the benefit of the public. One activity that is an integral part of any waterway or channel maintenance operation is the disposal of dredged material, so it is primarily regulated by federal agencies.

However, states also have the power to regulate activities related to the disposal of dredged material because of their ownership interest in uplands and submerged lands within their borders. This chapter discusses the state regulations and laws potentially applicable to the disposal of dredged material in containment areas, including the substantive standards and steps in the permit process, and the agencies involved in the permit process.

The model states are Alabama, Florida, Louisiana, Maryland, South Carolina, and Texas. The selection of six model states was designed to make the task of setting out different state regulatory environments more manageable. These particular states were chosen because (1) they represent a variety of regulatory environments, thus giving the reader a sampling of regulatory system structures; (2) they are states in which confined dredged material disposal is already practiced and will be practiced in the future, requiring

⁷⁰For example, the CZMA and the NPDES are both federal laws, but are actually administered by state agencies in the model states.

⁷¹Black's Law Dictionary at 244; the Commerce clause of the United States Constitution appears in art. i, Section 8, clause 3.

⁷²The doctrine of navigational servitude is grounded in the federal commerce power. Rivers and Harbors Act of 1899, 43 U.S.C. 1314.

⁷³The navigation servitude is defined as the "[p]ublic right of navigation for the use of the people at large." Black's Law Dictionary at 927.

additional DMCA acreage; and (3) they are states in which aquaculture is a potentially significant industry.

Organization of this chapter is different from the previous chapter. State permit information is provided in two places. First, in the remainder of this chapter, each state's permit process is discussed in narrative form, highlighting key features of each model state's regulatory framework.⁷⁴ This narrative is designed to give Corps personnel and others an overview of the permit process in each model state, which readers will already be familiar with if they are already involved in the permitting of DMCA's. Second, more detailed information about each model state is contained in the charts that make up APPENDIX A to this report. Each of the model states has its own chart (to read across facing pages) setting out detailed permit information (including agency contacts, addresses, citations to state statutes and regulations) for the following eleven categories of state regulation (numbered to correspond to the numbering system on the charts):

I. Environmental legislation

- (a) Wetland protection laws
- (b) Water quality laws
- (c) Wild and scenic river protection legislation
- (d) Fish and game habitat protection laws
- (e) State environmental impact law (SEPAS)
- (f) Coastal zone management legislation or coastal plans
- (g) NPDES

II. Land use planning legislation

- (a) State land use and land use planning laws
- (b) Public land laws (affecting state-owned lands or submerged lands)
- (c) Floodplain protection laws
- (d) Levee construction permits

⁷⁴The narratives for the six model states discuss the key features of the state regulatory process in the following order:

- I. Land Protection & Management
 - A. Coastal Land & Wetland Protection
 - B. Public Lands
 - C. Land Use Planning
- II. Water Resource Protection
 - A. Water Quality
 - B. Water Management
 - C. Levee Construction
- III. Biological Resource Protection

For each of the above categories, the charts set forth information on the following eight topics (numbered to correspond to the charts):

- (A) Title of state laws and regulations with citations
- (B) Name, address, and telephone number of the state agency responsible for the administration of that law
- (C) A brief description of the authorities of that agency
- (D) A description of the physical or geographic area of that agency's authority
- (E) Indication whether the disposal of dredged material is an activity mentioned specifically in the law or regulation and, if so, whether the Corps of Engineers gets an exemption or other special treatment
- (F) Indication of whether a permit is required
- (G) A brief description of the permit procedures that the Corps must follow in order to secure that permit
- (H) Whether the agency in question allows waivers or variances from the permit requirement

The narratives for the model states follow, and are arranged in alphabetical order. For more detailed information on a model state, see APPENDIX A.

NARRATIVES: THE MODEL STATES

ALABAMA

Introduction

Alabama's permitting process functions with the Corps of Engineers (CE) as lead agency. The two chief state agencies involved are the Alabama Department of Environmental Management (ADEM) and the Alabama Department of Conservation and Natural Resources. The job of coordination, including notification of state agencies, has been assumed by the Corps. Coordination, as a practical matter, consists of a joint application form, CE/ADEM 166, and an inter-governmental agency comment period. The state, as a practical matter, actually depends upon the Corps for notice to state agencies and to the public, even though on paper two offices exist purportedly for permit coordination.⁷⁵ Both the Permit and Services Office (formerly known as the Permit Coordination Center) and the State Clearinghouse (for federal projects within state borders) exist, but have not to date had an active role in coordinating the permit process.

I. Land Protection and Management

A. Coastal Land and Wetland Protection

⁷⁵Telephone call, Marilyn Elliot, ADEM Permit and Services Office.

Authority for protecting both the state's wetlands and coastal zone is derived from a single piece of legislation--the Alabama Coastal Area Management Act of 1976.⁷⁶ This provides for regulation of oil and gas operations, dumping, dredging damage to flora and fauna, and construction affecting the tidal flow. The state's definition of wetlands is much the same as the CE's: "[a]reas which are inundated or saturated by surface or ground water to adequately support and do support a prevalence of vegetation typically adapted for life in saturated soil conditions."⁷⁷ The emphasis is clearly on coastal resources (nontidal wetlands are not mentioned). The state does not issue a separate permit for projects within its wetlands, but relies instead on Section 404 criteria of the Clean Water Act to protect the state's interest. The coastal zone is identified and set out in the Alabama statutes.⁷⁸ Under the federal CZMA, the state is required to certify whether a proposed federal project is consistent with the state's coastal zone management plan. (Consistency certification is also required for Corps permits for private development.)

B. Public Lands

1. Submerged Lands

The Department of Conservation and Natural Resources, Lands Division has responsibility for protecting and managing state waterbottoms under navigable waterways within the state. The Division's authority includes issuing leases and assessing royalties for the removal of soil from the waterbottoms. These royalties should be waived for the CE pursuant to the doctrine of navigational servitude. However, the state does recommend sending a letter outlining the proposed project to their office when requesting the CE/ADEM 166 from the CE.

2. Wild and Scenic Rivers

Alabama does not have specific legislation to protect wild and scenic rivers.

C. Land Use Planning

1. Comprehensive Planning

The state has Regional Planning Commissions (RPCs) to develop regional plans with the stated purpose "to provide planning guidance and assistance

⁷⁶Ala. Code sec. 9-7-1 through 9-7-22 and ADEM Rule 335-8-1.

⁷⁷ADEM Adm. R. 335-8-1-.02(YY).

⁷⁸Ala. Code sec. 9-7-10(1)-10(2).

necessary to accomplish a coordinated, adjusted and harmonious development of the region."⁷⁹ It also provides for the establishment of Municipal Planning Commissions (MPCs) which are allowed to adopt Regional Plans. Without state structure connecting these planning groups to the CE permit, it is uncertain to what extent the RPC can provide meaningful, if any, input on the proposed impact of a CAAF upon a particular area. It is unclear whether this relieves the applicant of any subsequent compliance with RPC plans.

2. State Environmental Policy Act (SEPA) - There is no pertinent state legislation on this area.

3. Floodplain Protection

Floodplain control is accomplished through separate county commissions adopting zoning ordinances and building codes for flood-prone areas within their jurisdictions. This authority is derived from the Comprehensive Land-Use Management In Flood-Prone Areas Act.⁸⁰ The applicant is thus required to contact the appropriate county commission directly to determine what is needed to comply.

II. Water Resource Protection

A. Water Quality

1. Surface Waters - Section 401 of CWA

Alabama regulates water quality through standards established by the Water Pollution Control Act,⁸¹ compliance with which will satisfy the 401 requirements of the CWA.

2. NPDES

Alabama is an EPA-delegated state for issuance of NPDES permits⁸² and Alabama carries out this responsibility through its Water Pollution Control Act.⁸³ This act requires all projects within the state which discharge any pollutant into waters of the state to obtain a permit from the Department of

⁷⁹Ala. Code sec. 11-85-1 et seq.

⁸⁰Ala. Code sec. 11-19-1, et seq.

⁸¹Ala. Code sec. 22-22-1 et seq.

⁸²If a state is "EPA-delegated," this means that EPA has allowed the state to administer its own NPDES program and issue its NPDES permits. If a state is not a "delegated state" the permit will be issued by the EPA. For more discussion of the NPDES system, see Chapter 3, Part A.

⁸³Ala. Code sec. 22-22-1, et seq.

Environmental Management. The term "pollutant" expressly includes dredged spoil material.⁸⁴ This permit is not required for the construction phase of an impoundment.

B. Water Management

The state has Water Management Districts which are governed by a Board of Water Management Commissioners who establish improvement works for the drainage of wet, swamp, and overflowed lands of the state for flood prevention and conservation, development, utilization, and disposal of water within the state. These districts are established by each county probate court. Again it is unclear whether the districts receive notice from the Corps.

C. Levee Construction

Alabama has no legislation regulating levee construction, but it is recommended that a letter, along with a copy of construction specifications, be sent to the city or county engineer in whose jurisdiction the project is located.

III. Biological Resource Protection

The Alabama Department of Conservation and Natural Resources through both its Wildlife Section and its Fisheries Section establishes wildlife management areas for the protection and restocking of wildlife species. These Sections have an opportunity to provide input to the intergovernmental agency review process for permit consideration.

FLORIDA

Introduction

Florida's permitting authority is divided primarily among two state agencies: the Department of Environmental Regulation (DER) and the Department of Natural Resources (DNR). In addition, the Department of Community Affairs (DCA) administers land management programs whose criteria may apply to large coastal dredging and construction projects. The State Clearinghouse in the Governor's office functions as a central coordination and processing unit for the review of federal activities, distributing and tracking the ten copies of submitted applications and environmental documents for review by state agencies. This centralization and utilization should minimize potential duplication and delay. While there is some duplication in state and federal certification/permit requirements, one review usually satisfies both.

⁸⁴Ala. Code Ann. sec. 22-22-1(3).

I. Land Use Protection and Management

A. Coastal Land and Wetland Protection

Within the state's coastal zone,⁸⁵ the responsibility for coastal management is shared among the three primary regulatory agencies, DER, DNR and DCA, as follows: (1) DER's Office of Coastal Management monitors federal compliance with the state's coastal plan; (2) DNR's Division of Beaches and Shores manages beach and shore preservation, restoration, and maintenance, by regulating coastal development (that is, where buildings may be built in coastal areas) using coastal construction and control lines;⁸⁶ and (3) DNR and DCA establish and enforce strict construction standards (that is, how buildings are built in coastal areas) to minimize damage to the natural environment, private property, and life.⁸⁷ The first category is the only one with which CE must be concerned.

State protection of wetlands is derived from the Warren S. Henderson Wetlands Protection Act of 1984.⁸⁸ The state delimits its wetlands through a vegetative index published in the Florida Administrative Code.⁸⁹ Even though "wetlands" denotes a land mass, regulation of dredge and fill activities in these areas focuses on preservation of land through preservation of water quality. DER will not issue a Wetlands Resource Permit until it is satisfied the project will not violate state water quality criteria and, depending on location, is either of legitimate public interest or not contrary to the public interest. Other criteria in the permit evaluation process are listed in the regulations⁹⁰ and include assessment of the impact on recreational use, wildlife, and other aquatic and plant resources.

⁸⁵Defined at F.A.C. at sec. 17-4.02(17).

⁸⁶Beach and Shore Preservation Act, Fla. Stat. Ann. Sections 161.011 - .212; see also Fla. Admin. Code 16B-33.36. Coastal construction and control lines are designed to preserve natural conditions of the beaches and shores, and attempts to minimize storm and hurricane damage.

⁸⁷Coastal Zone Protection Act of 1985, Fla. Stat. Ann. Sections 161.52 - .58.

⁸⁸Fla. Stat. Ann. sec. 403.91 - .929.

⁸⁹F.A.C. sec. 17-301.400.

⁹⁰F.A.C. sec. 17-302 and 17-312.

There is some overlap in the review process. For example, some aspects of the review require assessment by both DNR and DER. The Joint Application eliminates the need for the applicant to contact each agency, which should save time and money. However, applicants may fear conflict among agencies charged with overlapping responsibilities. For example, Florida's five Water Management Districts have some authority to implement dredge and fill permit criteria within certain isolated wetlands, and DER can also exercise any power authorized by a Water Management District. Conflicts should be kept at a minimum because DER functions as the lead agency in wetlands dredge and fill operations.

B. Public Lands

Potential impact upon state-owned lands, excluding submerged lands, should be minimal since impoundments will most likely be on private land, not public land. Of course, if an impoundment site adjoins state-owned land then there is the opportunity for some impact. State-owned lands having special designations (such as parks, refuges, and wild and scenic rivers) are assessed for potential impact with recommendations made to DER for consideration in the permit decision-making process. Such designated lands are administered by DNR through the Division of Recreation and Parks and the Division of State Lands, respectively.

With respect to submerged lands, the state holds title to submerged lands under navigable waters within the state.⁹¹ Before any material can be removed from the water bottom, DNR's Division of Submerged Lands Management must give approval. The state also has authority to assess a fee for removal of waterbottom material; however, this fee should be waived for the CE under the doctrine of navigational servitude.⁹² In the past there has been litigation (or serious threats thereof) concerning potential conflict between the state's regulatory power and the Corps's navigational servitude. The controversy centers on the extent to which the Corps must comply with the state's wishes concerning disposal of dredged material. More detailed discussions of

⁹¹Fla. Stat. Ann. sec. 253.04.

⁹²Fla. Stat. Ann. sec. 253.12; for an explanation of the navigation servitude, see the first paragraph of this chapter.

the controversy are found elsewhere,⁹³ but for purposes of this report, it is sufficient to say such conflicts are unlikely for a CAAF. Also, this history of conflict may explain some actions and reactions between the two agencies. Even recognizing federal supremacy the state, including DNR, has its own leverage in the permitting process, *i.e.* federal consistency certification with respect to the state's coastal zone plan, and findings of "no detrimental impacts on state wetlands." For example, if DNR finds that the proposed activity has a detrimental impact on state resources, it will recommend to DER that approval be withheld.

C. Land Use Planning

1. Comprehensive Planning

Land use and planning is administered through a comprehensive planning structure at all three levels of government, each capable of evaluating a project's potential impact within its respective jurisdiction. The State Clearinghouse forwards a copy of the application to the Department of Community Affairs, Bureau of State Planning to provide them an opportunity to evaluate potential impacts of the proposed project. The applicant is responsible for sending three copies to the appropriate Regional Planning Council to allow it an opportunity to comment. Compliance with these comprehensive plans provides state oversight for land management within the state. Specific note should be made of areas designated by statute as areas of "critical state concern,"⁹⁴ since they receive greater protection and scrutiny in the permitting process.

2. SEPA

The state does not have a SEPA per se and does not require an EIS for any project, but it does have an assessment process to evaluate the potential impacts of projects pursuant to the Florida Environmental Land and Water Management Act of 1972.⁹⁵ This review is known as Determination of Regional Impact (DRI).

⁹³A more detailed discussion of these issues appears in Sellers, C. M. 1987. "The Natural Cost of the Federal Navigational Servitude - Who Ultimately Pays?" 3 Journal of Land Use and Environmental Law 133.

⁹⁴Fla. Stat. Ann. sec. 380.0551 through 380.0558.

⁹⁵Fla. Stat. Ann. sec. 380.012, et seq.

3. Floodplain Protection

Floodplain protection is a shared responsibility between the DER and five Water Management Districts, each having a designated area.⁹⁶ A liaison office coordinates activities between these governmental entities. The stated goals are to minimize soil erosion, excessive drainage, and damage from floods. Each agency may comment during the processing of the Joint Application.

II. Water Resource Protection

A. Water Quality

1. Discharges into Waters of the State

Water quality assurance is a primary responsibility of DER through the Florida Air and Water Pollution Control Act⁹⁷ and the Florida Water Resources Act of 1972.⁹⁸ Through the former act, DER regulates water quality certification by assuring that discharges of dredged material meet state water quality standards under Section 401 of the Clean Water Act. Authority for compliance with state criteria extends to all natural and artificial bodies of water where the possibility of discharge exists. This would include impoundments, as well as the dewatering of dredged material. Florida also has two special water designations that provide even greater protection. DER will not issue permits or water quality certifications for activities or discharges proposed in Outstanding Florida Waters (OFW) and Outstanding National Resource Waters⁹⁹ unless specific criteria are met.¹⁰⁰

Through the Florida Water Resources Act of 1972, DER shares some responsibility with the five Water Management Districts primarily in the area of water use and management; however it appears the districts have the lead responsibility. A liaison office coordinates responsibilities between the DER and the five districts. As long as the CE deals with DER for water quality there should be little reason for problems to arise with a district. The

⁹⁶Fla. Stat. Ann. sec. 373.016(2)(d) and 373.103.

⁹⁷Fla. Stat. Ann. sec. 403.011-.261

⁹⁸Fla. Stat. Ann. sec. 373.013. (F.A.C. sec. 17-302)

⁹⁹F.A.C. sec. 17-302.700

¹⁰⁰F.A.C. sec. 17-4.242.

district is provided an opportunity to comment on anticipated water use problems during the permit process.

2. NPDES

Discharges from industrial waste sites must comply not only with state criteria, but also with standards of the U.S. Environmental Protection Agency. In other states the permit authority has been delegated to the state;¹⁰¹ Florida, however, is not a delegated state, as of this writing. Even so, Florida does have an equivalent NPDES permit and required criteria under the Florida Air and Water Pollution Control Act.¹⁰² This permit is not required for the construction phase of the impoundment, but is required for the aquaculture operation. Not all states concur in this position--some require the NPDES permit before a construction permit will be issued. Construction of impoundments is addressed in the next section on water management.

B. Water Management

Floodplain protection is the shared responsibility of the DER and the five Water Management Districts.¹⁰³ Any potential impact of a project within or to the floodplain must be reviewed by the two agencies before any permits can be issued. The submission of the Joint Application initiates the necessary review.

C. Levee Construction

Levee construction is governed by statute¹⁰⁴ which authorizes DER and the Water Control Districts to issue permits for levee construction, including the building of impoundments.

III. Biological Resource Protection

A. Plants and Animals

The state's endangered plants and animals are protected by DNR and the Florida Game and Fresh Water Fish Commission.¹⁰⁵ These two agencies are

¹⁰¹A so-called "delegated state" is a state to which the EPA has delegated authority to issue NPDES permits. The EPA delegates this authority to states "which demonstrate their ability to carry out the objectives and terms of the NPDES program."

¹⁰²Fla. Stat. Ann. sec. 403.011-.261.

¹⁰³Fla. Stat. Ann. sec. 373.016(2)(d).

¹⁰⁴Fla. Stat. Ann. sec. 373.016(2)(c).

¹⁰⁵Fla. Stat. Ann. Ch. 372 and 581.

given notice and an opportunity to comment as to potential impacts on both endangered species and all potentially threatened species within the state.

B. Aquatic Preserves

Florida designates certain areas as Aquatic Preserves.¹⁰⁶ They contain resources of significant magnitude and receive heightened protection. Regulatory responsibility rests with the Bureau of Aquatic Preserves, Division of State Lands within DNR. Chances are that these areas are outside CE's areas of maintenance dredging.

LOUISIANA

Introduction

Louisiana's permitting process is a joint undertaking between the state and the Corps of Engineers (CE). The process utilizes the CE's form in most cases with copies distributed to state agencies for review and comment. State responsibility is divided among the Department of Natural Resources (DNR), the Department of Environmental Quality (DEQ), and the Department of Wildlife and Fisheries Habitat Conservation (DWFHC).

I. Land Use Protection and Management

A. Coastal Land and Wetland Protection

Coastal zone (CZ) management is regulated through DNR's Coastal Management Division. The boundaries of the zone are delineated by statute.¹⁰⁷ Activities within the CZ must comply with both the state Coastal Use Permit (CUP) requirements¹⁰⁸ and with the state coastal plan in order to receive federal consistency certification.¹⁰⁹

Wetlands protection within the state is provided through the Louisiana Coastal Wetlands Conservation and Restoration Act.¹¹⁰ Wetland projects within the state's CZ require a CUP as well as Section 404 approval, which are usually processed concurrently utilizing CE Form 4345. Projects within the CZ

¹⁰⁶For a list of the areas so designated, see Fla. Stat. Ann. sec. 258.39. Variances are listed at sec. 258.42(a) and (b).

¹⁰⁷La. Rev. Stat. Ann. tit. 49, sec. 214.23(4) and 214.24.

¹⁰⁸La. Rev. Stat. Ann. tit. 49, sec. 214.27

¹⁰⁹Sec. 307(c), CZMA, 16 U.S.C.1456(c).

¹¹⁰La. Rev. Stat. Ann. tit. 49, sec. 214.1-214.5. The definition for wetlands appears at sec. 214.3(3).

require that five copies of the application be submitted to the Coastal Management Division of DNR. Likewise, projects outside the CZ require that the application be submitted directly to the CE with copies to the state agencies listed in the application packet. Before either permit is issued the DEQ must be satisfied the dredge and fill activities meet the state's water quality standards.

B. Public Lands

Public lands are regulated by DNR and DWFHC. Both agencies provide input during the permit process as to potential impact on state resources. Special designations, such as Louisiana's Natural and Scenic Rivers Act,¹¹¹ provide additional protection for rivers of unique qualities. However, according to agency personnel, these areas would not be areas where the Corps normally performs maintenance dredging.

With respect to submerged lands, state ownership of most of the water bottoms within the state establishes authority for DNR's regulation.¹¹² The Division of State Land has the responsibility to protect and conserve submerged land through permits, licenses, or leases for work performed on the water bottoms. The DWFHC's Division of Ecological Services has responsibility for assessing royalties for the removal of any sand or fill material from the water bottoms. Royalties should be waived for the CE under the doctrine of navigational servitude.

C. Land Use Planning

1. Comprehensive Planning

Comprehensive land management planning throughout the state is accomplished through both Parish and Regional Planning Commissions.¹¹³ Both are authorized to develop plans to harmonize the planning activities of the federal, state, parish, and local agencies and entities for the purpose of achieving the most desirable pattern of land use. Presumably these entities receive notice from DNR or CE with respect to projects within the commission's area of authority in order to comment during the review process.

¹¹¹La. Rev. Stat. Ann. tit. 56, sec. 1841; actual designated rivers appear at sec. 1847.

¹¹²La. Rev. Stat. Ann. tit. 41, sec. 1701.

¹¹³La. Rev. Stat. Ann. tit. 31, subpart A, sec. 101, and subpart C, sec. 131.

2. SEPA

Louisiana does not have State Environmental Policy Act legislation.

3. Floodplain Protection

The Department of Transportation and Development provides floodplain protection through implementation of the Statewide Flood-Control Program.¹¹⁴ The Department works with municipalities, parishes, and Drainage Districts to protect lands used for overflow and drainage. The joint application process provides the Department with notice and an opportunity to provide input concerning potential impact.

II. Water Resource Protection

A. Water Quality

1. Discharge into Waters of the State

Water quality is monitored by DEQ's Office of Water Resources, which regulates the discharge of any waste material or polluting substance into waters of the state. The office issues state Water Quality Certification consistent with Section 401 of the Clean Water Act requirements. Criteria extend to the "waters of the state" including both surface and underground waters, all rivers, streams, lakes, groundwaters, and all other water courses and waters within the state.¹¹⁵

2. NPDES permits are actually issued by U.S. Environmental Protection Agency (EPA) because Louisiana is not a delegated state. However, the state has its own equivalent NPDES permit, which, when issued, will likely satisfy EPA's criteria as well. The Permit Section of the DEQ's Water Pollution Control Division investigates, controls, regulates, and/or restrains the discharge of any waste material or other polluting substance into waters of the state. This permit is not required for the construction phase of the project according to agency personnel.

B. Levee Construction

Levee construction for state-approved projects is regulated through the Levee and Drainage Boards.¹¹⁶

III. Biological Resource Protection

¹¹⁴La. Rev. Stat. Ann. tit. 38, sec. 90.1-90.17.

¹¹⁵La. Rev. Stat. Ann. tit. 30, sec. 2071 and La. Adm. Code tit. 33, vol. 14, part IX.

¹¹⁶La. Rev. Stat. Ann. tit. 38, Ch. 4, Part 3, sec. 301.

The Department of Wildlife and Fisheries administers a National Heritage Program with regulatory authority over projects with potential impact on the state's endangered species as well as non-endangered species.¹¹⁷ In addition to the CE application the agency requests from the applicant a letter and map describing the proposed project and location. The agency has an opportunity to comment in the review process.

MARYLAND

Introduction

Maryland's permitting process is comprehensive and, as of this writing, in a state of flux for several reasons. First, in January 1991 the joint application form used by the state and the Corps of Engineers changed with the implementation of the new Non-tidal Wetlands Protection Act.¹¹⁸ Second, there has been a change in administration in Maryland, including changes in agency personnel. Third, state environmental agencies are in the midst of reorganization. Maryland has a Central Processing Office in place with the Department of Natural Resources (DNR) for receipt and distribution of all applications. Thus, once this new wetlands act is fully implemented, once the changes in administration and personnel are completed, and once the reorganization of environmental agencies is implemented the state's efforts at streamlining the permit process should benefit applicants. The two primary state agencies in the review process are the Department of Natural Resources (DNR) and the Department of the Environment.

I. Land Use Protection and Management

A. Coastal Land and Wetland Protection

Maryland's coastal zone management statute¹¹⁹ has two regulatory bodies in order to ensure compliance with the state coastal plan. First, DNR's Coastal Resources Division implements regulations to maintain Atlantic Coast beaches.¹²⁰ Second, the Chesapeake Bay Critical Area Commission oversees projects in the designated critical area which could have a detrimental

¹¹⁷La. Rev. Stat. Ann. tit. 56.

¹¹⁸Md. Nat. Res. Code Ann. sec. 8-1201, et seq.

¹¹⁹Subtitle 11, Title 8, Water and Water Resources chapter of Md. Code Ann.

¹²⁰Subtitle 11, Beach Erosion Control and Replenishment.

impact.¹²¹ Whichever agency has jurisdiction, it must be satisfied the federal project complies with the state's coastal zone plan.

Wetlands legislation has been the recent focus within the state with the new Non-tidal Wetlands Protection Act.¹²² This act has the distinction of being the first state wetlands act with an explicit "no net loss" goal. This, along with the Tidal Wetlands Act,¹²³ provides a comprehensive framework for resource regulation.

In addition to distinguishing tidal wetlands from nontidal wetlands, the state distinguishes private wetlands from public (state) wetlands.¹²⁴ Maryland's definition of nontidal wetlands comes from the definition in the new Federal Manual for Identifying and Delineating Jurisdictional Wetlands.¹²⁵ The review process is initiated by the submission of an original and four copies of the new Joint Application to DNR's Central Processing Office. The Central Processing Office distributes the applications to agencies requiring review, including the Corps. To further facilitate the processing DNR provides a toll-free number for applicants to call to check on the status of their nontidal wetlands application.¹²⁶ Before the state will issue a permit it must be satisfied the project will not violate state water quality criteria. As the federal regulator, the CE must be satisfied the project satisfies Clean Water Act Section 404 requirements.

B. Public Lands

The Maryland regulations governing public lands¹²⁷ may be affected by the reorganization within DNR. However under current law, the state's goals are to preserve the natural resources in designated areas, yet promote recreational use. Once DNR receives notice of the review process it will have an opportunity to assess potential impacts upon protected resources and provide

¹²¹The "critical area" is delineated at sec. 1807 of Subtitle 8.

¹²²Md. Nat. Res. Code Ann. sec. 8-1201, et seq.

¹²³Md. Nat. Res. Code Ann. sec. 9-101, et seq.

¹²⁴Md. Nat. Res. Code Ann. sec. 9-101(i) and (m).

¹²⁵Federal Manual discussed in Chapter 1, cf.

¹²⁶As of this writing, the number is (800) 876-0200.

¹²⁷Natural Resources Title 5, Forests and Parks, Subtitle 10 Public Park Land.

comment. Except for impact to adjoining public property it is not likely these regulations should pose a problem for project approval. The state also has some areas with special designations (such as state parks, refuges, and wild and scenic rivers) which provide them additional protection and scrutiny during the permit process. Although it is unlikely a proposed project will take place within one of these designated areas, additional safeguards may be required if the proposed site is adjacent to a designated area.

C. Land Use and Land Use Planning

1. Comprehensive Planning

The Executive Office of Planning directs comprehensive planning and has oversight authority for planning matters concerning resources and development of the state. There are also Regional Planning Councils (RPCs) throughout the state to develop plans for their specific geographic areas.

2. SEPA

The state does have a state environmental policy act (SEPA), the Maryland Policy Act.¹²⁸ One of the express goals of the act is the preservation and enhancement of the state's environment to maintain public health, welfare, and economy. All agencies within the state are required to take the provisions of this act into account when planning and implementing their regulations.

3. Floodplain Protection

Floodplain protection comes from the state's Flood Management Plan.¹²⁹ This plan implements restrictions based upon a "flood hazard area" consisting of tidal and nontidal inundation based on a 100-year flood event. DNR should provide input during the comment period where it appears the impoundment would come within this prohibited hazard area.

II. Water Resources Protection

A. Water Quality

Discharges into waters of the state must meet water quality standards established by the Division of Standards and Certification within the Department of the Environment.¹³⁰ Once the criteria are satisfied the state will

¹²⁸Natural Resources Title 1 Department of Natural Resources: Subtitle 3, Md. Code Ann. 1-301, et seq.

¹²⁹Title 8, Subtitle 9A, Flood Control and Watershed Management.

¹³⁰Environment Title 9, Subtitle 3, Md. Code Ann.

issue a Section 401 Water Quality Certification. The standards apply to both surface and ground water.

III. Biological Resource Protection

Both fisheries and wildlife come within DNR's protection.¹³¹ Fish and wildlife protection legislation attempts to protect and propagate fish and wildlife using a system of refuges, fish hatcheries, and wildlife management areas. Although there are designated areas within the state which receive additional protection, it is unlikely that a CAAF would be proposed for those areas.

SOUTH CAROLINA

Introduction

South Carolina's permitting process is comprehensive and quite active under the principal lead of the South Carolina Coastal Council (SCCC). The state has its own SCCC Permit for projects in wetlands. With respect to projects like a CAAF in which the CE will apply for authorizations from the state, the SCCC issues a consistency statement attesting that the proposed federal project complies with the state's coastal zone management plan. The permitting process utilizes a joint form for SCCC and CE review, and a joint public notice process. Other state agencies active in the environmental permit process include the Department of Health and Environmental Control, the Water Resources Commission (WRC), and the Department of Wildlife and Marine Resources.

I. Land Protection and Management

A. Coastal Land and Wetland Protection

Coastal zone management is one of SCCC's primary responsibilities under the Coastal Management Act (CMA). The state's coastal zone includes eight coastal counties.¹³² The SCCC has authority to review federal projects for consistency with the state's coastal plan. The SCCC does not issue a permit per se; rather, it issues a certification, in lieu of a permit, certifying the activity is consistent with the state's coastal plan.

¹³¹Natural Resources Title 4, Fish and Fisheries, Subtitle 4, State Fish Refuges and Hatcheries in Tidal and Non-tidal Water, Md. Code Ann.; Title 10, Wildlife, Subtitle 8, State Wildlife Management Areas and Hunting Grounds.

¹³²Section 480-39-10(B) of the S.C. Code Ann.

With respect to wetlands, the guiding legislation for the protection of the state's wetlands comes from the South Carolina CMA.¹³³ The state's wetlands are divided into two categories. First, wetlands within the state's "critical areas" are comprised of tidelands, coastal waters, beaches, and primary oceanfront land from the sand dunes seaward (includes all saltwater wetlands). This category of wetlands is under the jurisdiction of the SCCC's Planning Division. Second, wetlands outside the "critical areas" (including all freshwater wetlands) are still regulated indirectly by the SCCC (through its certification process). However, primary authority is exercised here by the Budget and Control Board through the WRC, which issues permits for dredging projects below the mean high water mark. The SCCC must review and certify the project is in accord with the South Carolina CMA. For federal projects the state has one contact person at SCCC who is responsible for coordinating efforts to facilitate certification.

Wetlands protection is stringently established with criteria beyond basic water quality. The state will only allow a wetland to be disturbed if (1) there is no feasible alternative, (2) the activity is water-dependent, or (3) there is an overwhelming public interest to approve the project. (Private gain through filling of wetlands is not considered a legitimate public purpose.) Dredging projects will not be permitted until an acceptable disposal site is approved by the state.¹³⁴

With respect to the disposal of dredged material, upland disposal is preferred. The site must be maintained so that there will be no runoff back into the waters of the state. Even when an upland site is selected, the state still requires minimum impact upon the wetland ecosystem. In fact the coastal plan provides vegetative wetlands are not to be utilized unless there is no feasible alternative.

B. Public Lands

South Carolina's public lands (other than submerged lands) are regulated by three agencies: (1) the Department of Parks, Recreation, and Tourism manages state parks; (2) the Department of Wildlife and Marine Resources has authority over all wild birds, game and fish as property of the state; and (3) the WRC regulates designated scenic rivers under the South Carolina Scenic

¹³³S.C. Code Ann. 48-39-10, et seq.

¹³⁴S.C. Admin. Code R.30-12.

Rivers Act of 1989.¹³⁵ The latter two agencies share responsibility for enforcement of the Scenic Rivers Act. Since the proposed site will usually involve impoundments on private land, it is unlikely there will be direct impact upon one of these areas, although the site could adjoin or be close to a protected site. Each agency has an opportunity to provide input to the SCCC as to the potential impact a proposed project may have on their respective areas of management.

Management authority for South Carolina's submerged lands is derived from the South Carolina CMA, and is divided between the SCCC and the WRC for the Budget and Control Board. The division of regulated submerged lands is based on whether the land is located within the state's "critical area." Federal projects within the critical area require consistency certification from the SCCC; federal projects outside the critical area require Navigable Waters Permits from the WRC, consistent with the federal government's navigational servitude under Section 10 of the Rivers and Harbors Act. Even where the WRC has this authority, the SCCC still must certify that the projects comply with the state's CMA.

C. Land Use Planning

1. Comprehensive Planning

County and Regional Planning Boards are responsible for developing systematic development plans for areas within their jurisdiction.

2. SEPA

South Carolina has no such legislation.

3. Floodplain Protection

The South Carolina Water Resources Planning and Coordination Act governs floodplain protection.¹³⁶ This act through the WRC provides assistance to regional, metropolitan, and local government agencies responsible for water resource planning, including flood damage control or flood prevention through zoning.

II. Water Resource Protection

A. Water Quality

1. Surface Waters

¹³⁵S.C. Code Ann. sec 49-29-10, et seq.

¹³⁶S.C. Code Ann. sec. 49-3-10, et seq.

Water quality protection of surface waters is the goal of the Pollution Control Act.¹³⁷ This legislation is implemented by the Division of Water Quality and Shellfish Sanitation through the Water Quality Certification and Wetlands Program. The state authority applies to any project within the state which discharges into navigable waters of the state. Certification that the federal project will meet the state's water quality criteria is also mandated by Section 401 of the Clean Water Act.

2. NPDES

NPDES permitting in South Carolina is different from most other states in that the NPDES discharge permit must be approved before the impoundment may be constructed.¹³⁸ Only after this discharge permit is approved will the state consider the construction permit. No work can begin until both of these permits are approved and issued by the state. The permits are required for any project which will discharge wastewater into surface waters of the state.

B. Levee construction

The State Lands Resources Conservation Commission's Dams and Reservoir Safety Division regulates the construction of levees. This agency inspects and certifies dams within the state for safety compliance, even if on private land.

III. Biological Resource Protection

The Department of Wildlife and Marine Resources has authority to review proposed projects for potential impact to fish and game and to recommend mitigating alternatives. The state agency's authority includes all wild birds, wild game, and fish within the state. The joint application process provides the agency an opportunity for input.

TEXAS

Introduction

The Texas permitting scheme is very limited when the applicant is the Corps of Engineers.¹³⁹ When the project is a maintenance dredging project

¹³⁷S.C. Code Ann. sec. 48-1-10, et seq. and S.C. Reg 51-101.

¹³⁸Telephone conference, Henry Gibson, NPDES Administrator; see, generally, S.C. Code Ann. sec. 48-1-10, et seq.

¹³⁹The Corps is considered the applicant when a Corps dredging project is underway, even when the land on which the project takes place is privately owned.

within navigable waters of the U.S., the Corps appears to be exempt from all state permits under the navigational servitude. Unlike other states, Texas has no joint application with the Corps. When the project takes place on state-owned lands or when a private applicant seeks to dredge, then there is an appropriate state application for an easement, license, or lease. The Corps must notify the state of Texas of projects scheduled within its boundaries. The three agencies which participate to some degree with CE activities are the Texas General Land Office (GLO), the Texas Water Commission (TWC), and the Texas Parks and Wildlife Department (TPWD).

I. Land Protection and Management

A. Coastal Land and Wetland Protection

The state does not have a federally approved Coastal Zone Management Plan. The Coastal Public Lands Management Act of 1973¹⁴⁰ is the guiding legislation for protecting the state's natural resources while ensuring use to the public. This is the same legislation discussed above that regulates public lands and exempts the CE from easement or lease fees.

Wetlands legislation exists in the form of the Coastal Wetland Acquisition Act.¹⁴¹ However, this statute has not been used very often. Some amendments to this wetlands legislation were, as of this writing, pending before the state legislature which, if passed, would make implementation of the act more substantive.

The act creates a system of classifying or certifying wetlands plus prioritizing wetlands for acquisition. The GLO is the certifying agency, and TPWD is the acquiring agency. Since the state has no Section 404 equivalent, the CE provides the sole standard specific to wetlands protection, notwithstanding compliance with Section 401 water quality criteria. (State water quality standards apply only to tidal wetlands.)

Without a joint application process the question arises as to how and whether state agencies are given notice and an opportunity to comment on the potential impact upon their area of expertise. It must be assumed the CE is carrying the primary burden in this area through its public notice and comment requirements.

¹⁴⁰Tex. Nat. Res. Code sec. 33.001, et seq.

¹⁴¹Tex. Nat. Res. Code sec. 33.231-33.238.

B. Public Lands

Public lands are the subject of some regulation through the Texas GLO in the form of easements, leases, and/or licenses. The GLO has its own application form for acts encroaching upon, through, over, or under state property. If, for example, the dredged material disposal site was sited on state property, then one of the GLO's applications would be appropriate. Legislation for both submerged and nonsubmerged land comes from the Coastal Public Lands Management Act of 1973 and state administrative regulations.¹⁴²

Submerged lands come under the above act as well. Where dredged material is removed from state water bottoms by a private applicant, a lease and the assessment of royalties for that removal are required. However, under the doctrine of navigational servitude the CE is exempt from state easement or fee requirements for activities in state submerged lands.

C. Land Use Planning

1. Comprehensive Planning

Regional Planning Commissions (RPCs) have authority to create development plans to guide growth within a given jurisdiction in order to promote the regional economy and its efficiency. The emphasis does not appear to be on the preservation of resources. It is not clear what method these RPCs utilize to provide input, if any, to the CE.

2. SEPA

There is no state environmental policy act.

3. Floodplain Protection and Levee Construction

Both activities are governed by legislation included in the Texas Water Code. The legislation is implemented by city and county governments which participate in the Federal Flood Insurance Program, and by the Texas Water Commission when these entities do not participate in the flood insurance program. Each of these regulatory bodies has authority to approve maintenance, construction, or improvement plans to levees and dams within the floodplain. An applicant should request a permit requirement determination from the Texas Water Commission (TWC) by submitting a letter describing the project along with a site map and conceptual plans.

II. Water Resource Protection

A. Water Quality

¹⁴²Tex. Nat. Res. Code sec 33-001, et seq., and 31 Texas Administrative Code (TAC) 15.43.

1. Waters of the State

The TWC regulates water quality within the state through the Texas Water Quality Act and the Texas Administrative Code (TAC).¹⁴³ Before issuing a 401 certification, the state must be assured the dredge discharge meets state water quality standards as specified in Title 31 of the TAC. This authority extends to all waters in the state including bays, lakes, impounding reservoirs, rivers, and all other bodies of surface water, natural or artificial including the beds and banks of those bodies.¹⁴⁴ Procedures for 401 certification are coordinated with the Section 404 process, thus providing some check on the water quality of the wetlands.

Discharge permits are issued by the state for discharge of wastes into, or adjacent to, the waters of the state.¹⁴⁵ The review procedure for a discharge permit application appears in the administrative regulations.¹⁴⁶

With respect to NPDES permits, since Texas is not an EPA-delegated state, an applicant may need an NPDES permit from EPA as well.¹⁴⁷

III. Biological Resource Protection

The TPWD has authority to acquire, maintain, and manage wildlife management areas and to manage wildlife and fish found within the state. Without a state coordinating application process with the CE, it is unclear how and when the TPWD can comment on the potential impacts of the proposed project to these resources.

¹⁴³Tex. Water Code sec. 26.023; Tex. Adm. Code tit. 31, sec. 279.

¹⁴⁴Tex. Water Code sec. 26.001(5) .

¹⁴⁵Definition of this term appears at Tex. Water Code sec 26.121(5).

¹⁴⁶Section 305, Title 30 of the TAC.

¹⁴⁷See, generally, Chapter 3, Part A.

- A hatchery, fishfarm, or other aquatic animal production facility is a concentrated aquatic animal production facility if it contains, grows, or holds aquatic animals in either of the following categories:

1. cold-water fish species and other cold-water animals in ponds, raceways, or other similar structures which discharge at least 30 days per year and produce more than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year and that are fed more than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding;
2. warm-water fish species and other warm-water animals in ponds, raceways, or other similar structures which discharge at least 30 days per year and produce more than 45,454 harvest weight kilograms (100,000 pounds) of aquatic animals per year.

- A processing facility which discharges wastewaters into U.S. waters, even if otherwise exempt as set out above, may be designated as an aquatic animal production facility and thus subject to NPDES permit requirements if the facility is determined to be a significant contributor of pollution.

EXEMPTIONS:

- See above.
- Discharges into publicly owned treatment works (i.e., local sewage treatment plants), but operators must still comply with all applicable pretreatment standards. The applicant should consult with the publicly owned treatment facility for standards and authorization prior to any discharges into the system.

AGENCY: U.S. Environmental Protection Agency (EPA).

AUTHORITY:

- Section 402, Clean Water Act (33 U.S.C. 1251-1387).
- 40 C.F.R., Part 122-125.

APPLICATION PROCESS:

- Letter requesting permit requirement determination to regional EPA office (describe facility, operation plans, preliminary or conceptual designs, and anticipated wastewater discharges).
- Complete EPA-provided permit application forms.
- File at least 180 days prior to anticipated discharges into U.S. waters.

REVIEW PROCESS:

- Completeness review.
- On-site inspection by an EPA inspector.
- If a new facility (source), EPA will request an Environmental Information Document (EID) be prepared and submitted. EID will be reviewed, EPA will issue public notice, review comments, decide whether to hold public hearing.
- Issued, denied, or waived on case-by-case basis.

TIME REQUIRED:

- 3-12 months or more.

FEES: None.

DURATION/RENEWAL: 5-year duration.

2. FOOD AND DRUG ADMINISTRATION

The U.S. Food and Drug Administration (FDA) is responsible for approving and regulating drugs which may be used in aquaculture operations. Federal Food, Drug and Cosmetic Act. 21 U.S.C. 301, et seq.

Note also that drugs do not include pesticides, which are regulated by the EPA.

Drugs used to treat diseases and parasite infections must be approved, and then they must be approved for aquaculture operations, including dosage.

The aquaculturist must follow instructions for each drug to be in compliance with the law. For example, one drug, Tricaine Methanesulfonate, can be used to immobilize certain fish intended for food, during transport. However, the drug should not be used within 21 days of harvesting the fish for food.

CONTACTS

Mr. Emilio E. Viera, DVM
Department of Health and Human Services
Public Health Service
Food and Drug Administration
Rockville, MD 20857
301-443-1414

For a more complete technical guide to approved chemicals in fish production, contact:

Technical Information Officer
National Fisheries Research Center
U.S. Fish and Wildlife Service
La Crosse, WI 54602-0818

2A. FIVE DRUGS APPROVED FOR FOOD FISH:

1. Oxytetracycline (feed): Salmonids, Catfish. 21 C.F.R. 558.540
2. Sulfadimethoxine, Ormetoprim: Salmonids, Catfish. 21 C.F.R. 558.575
3. Sulfamerazine (feed): Trout. 21 C.F.R. 558.582
4. Formalin Solution: Salmon, Trout, Catfish, Largemouth Bass, Bluegill. 21 C.F.R. 529.1030
5. Tricaine Methanesulfonate: Fish, Amphibians, other cold-blooded animals. 21 C.F.R. 529.2503

The seven drug research projects presently sponsored by the USDA, Interregional Research No. 4 (IR-4) Project:

DRUG	SPECIES	DISEASE	RESEARCHER
Chloramine-T	Trout	Bacterial Gill Disease	USDA, Fish & Wildlife Serv.
Erythromycin (feed)	Salmonids	Bacterial Kidney Disease	U. of Idaho
Erythromycin (injection)	Salmonids	Bacterial Kidney Disease	U. of Idaho
Oxytetracycline	Striped Bass	Bacterial Infections	Auburn U.
Formalin	Striped Bass	External Parasites	Auburn U.
Virginiamycin	Am. Alligator	Bacterial Infections	U. of Florida
Fluro-uinolone	Salmonids	Furunculosis	Cornell U.

3. FISH AND WILDLIFE SERVICE (FWS)

The U.S. Fish and Wildlife Service (FWS), under the Department of the Interior, is responsible for ensuring the protection and proper management of wildlife, including fish. The FWS regulates and permits international and interstate import and export of fish and wildlife. Shipments of wildlife must enter and leave the United States only through ports designated by the FWS. (See 50 C.F.R. 10-24.)

The FWS is also a commenting agency under the Fish and Wildlife Coordination Act, reviewing, commenting, and making recommendations on such things as proposed alterations to any water body by the federal government and the effect on fish and wildlife under protection by the FWS.

According to the FWS, it is the intent of the FWS to build a strong and mutually beneficial relationship with the private aquaculture industry and, to the extent possible, make its scientific and technical resources available to further the development of private aquaculture.

CONTACTS

Technical Information Officer
Technical Information Services
National Fisheries Center-Leetown
U.S. Department of the Interior
Route 3, Box 700
Kearneysville, WV 25430
304-725-8461

3A. LICENSE TO IMPORT/EXPORT FISH AND WILDLIFE

WHO NEEDS LICENSE: Any one who will import or export internationally or interstate fish (or wildlife) with a value exceeding \$25,000 per year for purposes of propagation or sale.

AGENCY: U.S. Fish and Wildlife Service (FWS).

AUTHORITY: 50 C.F.R. 10-24.

APPLICATION PROCESS: Complete and submit form provided.

REVIEW PROCESS: Completeness.

TIME REQUIRED: Approximately 30-60 days (longer with endangered species).

FEES:

- \$125.00 for license.
- \$25.00 per shipment imported/exported.

DURATION/RENEWAL: One year, renewable annually.

COMMENTS:

- Applicant must also comply with any applicable state restrictions, as well as regulations of country of origin or destination.
- A completed clearance form (Declaration for Importation or Exportation of Fish And Wildlife) must be submitted to the FWS Inspector at a port-of-entry for approval (to obtain a shipment release from Customs).
- The nine designated ports-of-entry presently include New Orleans, Dallas, Miami, Chicago, New York, Seattle, Honolulu, Los Angeles, and San Francisco.

ALABAMA

Alabama does not license or permit an activity defined as "aquaculture." Activities traditionally associated with the practice of aquaculture are not the subject of a comprehensive regulatory scheme under Alabama law, and may be regulated by either the Commissioner of Agriculture and Industries, which is a constitutional position under Sections 112-138 of the Alabama Constitution of 1901; the Department of Conservation and Natural Resources under Ala. Code (1975), Section 9-2-1, et seq.; or the Alabama Department of Environmental Management under the Department of Health, Mental Health, and Environment, Ala. Code (1975), Section 22-22-1, et seq.

CONTACTS

Ms. Ana (Kiki) Hiott, Project Manager
Alabama Aquaculture Plan
Dept. of Fisheries and Allied Aquacultures
Swingle Hall
Auburn University, AL 36849
205-844-4786

1. COMMISSIONER OF AGRICULTURE AND INDUSTRIES

Ala. Code (1975), Section 2-2-1, et seq. describes the powers and duties of the Commissioner, and invests the office with management and control of the Department of Agriculture and Industries. The Commissioner is empowered to execute the agricultural policies of the State Board of Agriculture and Industries. The Board's function is to assess the agricultural and industrial needs of the state, to promulgate rules and regulations necessary to carry out the objects and purposes of the regulatory work required by law to be executed by the Commissioner, and to cooperate with appropriate external agencies.

CONTACTS

Mr. A. W. Todd
Commissioner of Agriculture and Industries
P.O. Box 3336
Montgomery, AL 36109-0336

1A. REGULATION OF CATFISH FARMING

There is no requirement for a license or permit per se. Regulations are designed to govern the direct retail sale for human consumption by a processor, distributor, or retailer of catfish designated as a product of Alabama. "Farm-raised Catfish, a product of Alabama" must be on the label for marketing

of catfish produced in fresh water according to the usual and customary techniques of commercial aquaculture, as per Ala. Code (1975), Section 2-11-35, et seq. Section 2-11-38 of the Alabama Code authorizes the Commissioner to seek to enjoin and/or obtain a temporary restraining order for noncompliance, and further authorizes enforcement by the District Attorney. Fines, penalties and seizure are provided for in Ala. Code (1975), Sections 2-11-39 and 2-11-40.

1B. GRADING AND STANDARDS OF FISH GENERALLY

No permits are required under Ala. Code (1975), Sections 2-11-51, 2-11-53, 2-11-56, and 2-11-57, pertaining to the labeling and grading of fish produced and processed within the state for the purpose of sale. Ala. Code (1975), Section 2-11-53 requires packers and shippers to obtain labels from the Commissioner, and the Commissioner is empowered to establish a fee by regulation to recoup the cost of the procedure. Persons subject to this regulation would have to afford the Commissioner or his designee the right of entry and inspection and would be entitled to a certificate of inspection. There is presently no enforcement pursuant to this provision.

1C. LIVESTOCK DEALER'S FINANCIAL RESPONSIBILITY ACT

WHO NEEDS PERMIT: Anyone engaged in buying livestock in Alabama for resale, exchange, or slaughter and meat packing purposes on his own account or for others must submit the following information to the Commissioner pursuant to Ala. Code (1975), Section 2-15-132: Full name and address of applicant, name of each member of the firm (or all officers), location of business and area in which applicant intends to buy livestock, and any other information deemed necessary by the Commissioner.

DEFINITIONS: Livestock, includes catfish only for the limited purpose of Section 2-15-131, et seq., of Ala. Code (1975).

AGENCY: Commissioner of Agriculture and Industry

AUTHORITY: Ala. Code (1975), Section 2-15-131, et seq.

APPLICATION PROCESS: Ala. Code (1975), Section 2-15-132 (c) provides that a license shall be issued upon receipt of the application and furnishing of bond, subject to revocation for failure to meet any provision of requirements or failure to pay for livestock purchased. Ala. Code (1975), Section 2-15-3 requires the bond to be in the minimum amount of \$10,000.

FEES: \$25.00 fee is to be submitted with application.

DURATION/RENEWAL: Each license shall be valid for one year, commencing January 1, and expiring December 31.

1D. ADULTERATION AND MISBRANDING OF FOOD

Ala. Code (1975), Section 20-1-20, et seq. empowers the Commissioner to establish standards for purity of food products. The standards are, so far as practical, to be in accordance with the standards promulgated by the federal government through its duly authorized agents.

1E. PESTICIDE APPLICATION PERMIT

WHO NEEDS PERMIT: Anyone using a restricted-use pesticide for Aquatic Pest Control. Ala. Code (1975), Section 2-27-11 requires anyone using or purchasing a restricted-use pesticide to obtain a permit, according to rules and regulations which may be promulgated by the Commissioner, and which shall satisfy the Federal Insecticide, Fungicide, and Rodenticide Act (see 7 U.S.C. 135, et seq.).

DEFINITIONS: Restricted Use Pesticide: A pesticide or device found by the Commissioner, with the advice of the pesticide advisory committee, to be hazardous when used by the general public and may be used only by special permit.

AGENCY: Commissioner of Agriculture and Industries.

AUTHORITY: Ala. Code (1975), Section 2-27-1, et seq.

APPLICATION PROCESS: Applicants must take a written examination.

REVIEW PROCESS: Passing of examination.

FEES: \$10.00 examination fee.

COMMENTS:

- Study materials for the examination may be obtained from:

Mr. W. L. Strain
315 Duncan Hall Annex
Alabama Cooperative Extension Service
Auburn, AL 36849
205-844-4000

- Information pertaining to scheduling and administration of the examination may be obtained from:

Ms. Brenda Ingram
Alabama Department of Agriculture and Industries
P.O. Box 3336
Montgomery, AL 36130
205-242-2656

2. ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

The Alabama Department of Environmental Management is constituted as part of the Department of Health, Mental Health, and Environment.

Alabama is an NPDES-delegated state in that the state handles all water discharge permits for aquaculture operations. Ala. Code (1975), Section 22-22-1, et seq., contain the relevant statutory provisions regarding water quality. Permit requirements are governed by the standards of Section 402, Clean Water Act (33 U.S.C. 1251, et seq.). The level of activity required before one has to apply for a permit in Alabama is established by the Clean Water Act. See Section on NPDES permits for level of activity to require a permit.

CONTACTS

Mr. John Poole
Chief, Industrial Waste Water Section
Alabama Department of Environmental Management
1751 Dickinson Drive
Montgomery, AL 36130
205-271-7852

2A. WATER DISCHARGE PERMIT

WHO NEEDS PERMIT: Concentrated aquatic animal production facilities.

AGENCY: Department of Environmental Management.

AUTHORITY: Ala. Code (1975), Section 22-22-1, et seq.

APPLICATION PROCESS: Submit application on forms provided, both federal and state.

REVIEW PROCESS: Completeness review.

TIME REQUIRED: 3-6 months, usually.

FEES: \$1100.00.

COMMENTS: The Department of Environmental Management, acting as the Alabama Water Improvement Commission may, pursuant to Ala. Code (1975), Section 22-22-9 (3) (c), require any person discharging, or applying to discharge, pollution into the waters of the state, to establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment or methods, sample pollution, in accordance with such methods and locations, intervals, and procedures as the Commission may require. Any member of the Commission or its employees or agents, without advance notice and upon presentation of appropriate credentials, may enter any property at any

reasonable time for the purpose of collecting such information as may be required by the Commission. Ala. Code (1975), Section 22-22-9(3)(c).

3. ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

The Alabama Department of Conservation and Natural Resources exercises direct control over the natural resources, state parks, and historical sites of the state.

The Department is given full jurisdiction and control of all seafoods existing or living in the waters of Alabama and of all public and natural oyster reefs and oyster bottoms of the state, with the authority to ordain, promulgate, and enforce all rules, regulations, and orders deemed by it to be necessary for the protection, propagation, or conservation of same. Ala. Code (1975), Section 9-2-4.

Ala. Code (1975), Section 9-2-80, defines seafood to include all oysters, saltwater fish, saltwater shrimp, diamond back terrapin, sea turtles, crabs, and all other species of marine or saltwater animal life existing or living in the water within the territorial jurisdiction of the state of Alabama.

The Department of Conservation and Natural Resources requires permitting only for black bass, bluegill, and shell cracker, and only on an ad hoc "one time only" basis for sale for human consumption.

CONTACTS

James D. Martin
Commissioner, Department of Conservation and Natural Resources
64 North Union Street
Montgomery, AL 36130
205-242-3486

Mr. Tim Cosby
Assistant Chief of Law Enforcement
Game and Fish Division
Department of Conservation and Natural Resources
64 North Union Street
Montgomery, AL 36130
205-242-3467

FLORIDA

The Florida Legislature passed the Florida Aquaculture Policy Act in 1984 (Chapter 597, Florida Statutes), which set out the intent of the Legislature to enhance the growth of aquaculture in Florida, while protecting

Florida's environment. The Act also further set out the intent of the Legislature to give the Department of Agriculture and Consumer Services the duty to coordinate the development of aquaculture and provide assistance, without infringing on the existing responsibilities of other state agencies.

This Act also established the Aquaculture Review Council and the Aquaculture Interagency Coordinating Board. The Council is responsible for formulating and recommending to the Commissioner of Agriculture rules and policies governing the business of aquaculture by studying and evaluating aquacultural issues. In addition, the Council is to consult with the Aquaculture Interagency Coordinating Board and provide all necessary assistance, review, and recommendations for implementation and revision of the state aquaculture plan.

The Aquaculture Interagency Coordinating Board provides and fosters interagency coordination with regard to aquaculture. The Council is to serve as a forum for the discussion and study of governmental regulations relating to aquaculture; to formulate solutions and recommend policy alternatives to facilitate implementation and revision of the state aquaculture plan; to establish and maintain effective and cooperative linkages between member agencies, the Aquaculture Review Council, and public and private institutional research, extension, and service programs, so that recommendations for improvement are responsive to the needs of aquaculture; and to prepare an annual report to the Governor, the Legislature, and the heads of each agency represented on the coordinating council.

FRESHWATER OPERATIONS

1. FLORIDA GAME AND FRESH WATER FISH COMMISSION (GFC):

The GFC regulates aquaculture facilities. The GFC is also responsible for issuing permits to culture, collect, and import freshwater fish or wildlife, as well as issuing licenses to sell freshwater fish or wildlife products. GFC regulates the promotion, marketing, and quality control of freshwater organisms.

Constitutionally, the GFC must exercise the regulatory and executive powers of the state with respect to wild animal life and freshwater aquatic life, except that all license fees for taking wild animal life and freshwater aquatic life and penalties for violating regulations of the Commission shall be prescribed by specific statute. Revenue derived from such license fees shall be appropriated to the Commission by the Legislature for the purpose of

management, protection, and conservation of wild animal life and freshwater aquatic life.

CONTACTS

The Game and Fresh Water Fish Commission
620 South Meridian Street
Tallahassee, FL 32399-1600
904-488-1960

Division of Administrative Services
904-488-6551

Division of Fisheries
904-488-4066

Division of Law Enforcement
904-488-6251

Division of Wildlife
904-488-3831

1A. FRESHWATER FISH DEALER LICENSE

WHO NEEDS LICENSE: Any person engaged in the business of taking for sale or selling any frogs or freshwater fish, or culturing and selling game fish as food.

DEFINITIONS:

- Freshwater fish: All of the species that are indigenous to fresh water.
- Game fish: Includes white bass-stripped bass hybrid and its reciprocal locally known as sunshine bass.

AGENCY: Game and Fresh Water Fish Commission (GFC)

AUTHORITY:

- Section 372.65, F.S.
- 39-1.004 (27), (28), -23.009(3),(5), -23.0091, -23.0092, F.A.C.

APPLICATION PROCESS: Submit application to the GFC.

REVIEW PROCESS:

- Completeness review.
- License issued or denied.
- Denial is appealable.

TIME REQUIRED: 30 days from date of complete application.

FEES:

- Resident Retail Fish Dealer: permits a resident to sell freshwater fish or frogs--\$25.00.
- Resident Wholesale Fish Dealer: permits a resident to sell freshwater fish or frogs to a retail dealer--\$50.00.

- Exotic Fish Dealer: permits a licensee to import, export, or sell exotic, indigenous, or nonindigenous fish--\$50.00.
- Nonresident Retail Fish Dealer: permits a nonresident to sell freshwater fish or frogs to a consumer--\$50.00.
- Nonresident Wholesale Fish Dealer: permits a nonresident to sell freshwater fish or frogs to a retail fish dealer, to another wholesale fish dealer, and to a consumer, as well as to buy freshwater fish or frogs for resale--\$500.00.
- Aquaculture Game Fish License: permits a resident to culture and sell game fish as food as prescribed by Commission rules--\$25.00.

DURATION/RENEWAL:

- 1-year duration, renewal annually by payment of \$40.00 fee.
- Licenses run from July 1 to June 30.

1B. PERMIT TO COLLECT AND POSSESS FRESHWATER FISH

WHO NEEDS PERMIT: Any person who will collect or possess freshwater fish or eggs for scientific, educational, exhibition, propagation, management, or other justifiable purposes.

DEFINITIONS: Fresh Water Fish: All of the species that are indigenous to fresh water.

AGENCY: Game and Fresh Water Fish Commission (GFC)

AUTHORITY: Rule 39-9.002, F.A.C.

APPLICATION PROCESS:

- Completeness review.
- Permit issued or denied.
- Denial is appealable (21 days to appeal).

TIME REQUIRED: 30 days from date of complete application.

FEES: None.

DURATION/RENEWAL:

- 1-year duration.
- Permits run from January 1 through December 31.
- Permits applied for after August 1 and approved are valid until December 31 of the following year.

1C. PERMIT TO IMPORT FISH

WHO NEEDS PERMIT: Any person importing freshwater fish of any species into the state.

AGENCY: Game and Fresh Water Fish Commission (GFC)

AUTHORITY:

- Section 372.26, F.S.
- Rule 39-23.008, F.A.C.

APPLICATION PROCESS: Submit completed application to the GFC, Division of Fisheries.

REVIEW PROCESS:

- Completeness review
- Site inspection, Division of Fisheries and/or Law Enforcement, if required.
- License issued or denied.
- Denial is appealable.

TIME REQUIRED: 30-60 days from date of complete application.

FEES: None.

DURATION/RENEWAL:

- 1-year duration, renewal annually by application.
- Permits run from July 1 to June 30.
- Permits applied for after April 1 and approved are valid until June 30 of the following year.

COMMENTS: GFC facilities inspections may be made where foreign or non-native species of freshwater fish are propagated for commercial purposes to ensure that species/eggs are not allowed to escape into the waters of the state. Failure to comply with regulations is a misdemeanor of the first degree. Advice is to familiarize oneself with cited F.A.C. rules.

1D. PERMIT TO COLLECT AND POSSESS FRESHWATER FISH

WHO NEEDS PERMIT: Any person wishing to collect or possess freshwater fish or eggs for scientific, educational, exhibition, propagation, management, or other justifiable purposes.

DEFINITIONS: Freshwater fish: All of the species that are indigenous to fresh water.

AGENCY: Game and Fresh Water Fish Commission (GFC)

AUTHORITY: Rule 39-9.002, F.A.C.

APPLICATION PROCESS: Submit application to GFC, Division of Fisheries.

REVIEW PROCESS:

- Completeness.

- Permit issued or denied.
- Denial is appealable (21 days to appeal).

TIME REQUIRED: 30 days from date of complete application.

FEES: None.

DURATION/RENEWAL:

- 1-year duration.
- Permits run from January 1 through December 31.
- Permits applied for after August 1 and approved are valid until December 31 of the following year.

2. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES (DACS):

The DACS is designated as the lead agency in encouraging the development of aquaculture activities in Florida and has the following functions, powers, and duties to:

- Assist persons seeking to engage in aquaculture when problems arise when applying for the necessary permits.
- Coordinate the development, revision, and implementation of a state aquaculture plan. Develop memorandums of agreement, as needed, with the Department of Natural Resources, the Florida Game and Fresh Water Fish Commission, the Florida Sea Grant Program, and other groups as provided in the state aquaculture plan.
- Provide staff for the Aquaculture Review Council and the Aquaculture Interagency Coordinating Council.
- In cooperation with other agencies, develop and propose to the Legislature legislation necessary to implement the state aquaculture plan or to otherwise encourage the development of aquaculture activities in the state.

DACS is also involved in implementing rules and permitting activities designed to ensure the wholesomeness of food, utilization of pesticides, and regulation of the use of feed and fertilizers. DACS also has a Bureau of Diagnostic Laboratories which assists in the diagnosis of animal and fish disease.

CONTACTS

Florida Dept. of Agriculture and Consumer Services (DACS)
The Capitol
Tallahassee, FL 32399-0810
904-488-9780

Division of Marketing
Aquaculture Program
Florida Dept. of Agriculture and Consumer Services
Room 425, Mayo Bldg.
Tallahassee, FL 32399-0800
904-488-4044

Division of Inspection
Bureau of Food Grades and Standards
3125 Conner Boulevard
Tallahassee, FL 32399-1650
904-488-3951

Division of Inspection
Bureau of Pesticides
Room 169, Administration Bldg.
3125 Conner Boulevard
Tallahassee, FL 32399-1650
904-488-0532

2A. PERMIT TO PROCESS FOOD

WHO NEEDS PERMIT: Any person or firm processing food for human consumption, except processors of fresh oysters, clams, mussels, and crab. Storage points and retail food stores also need permits.

DEFINITIONS: Food: 1. Articles used for food or drink for man or other animals; 2. Chewing gum; and 3. Articles used for components of any such article.

AGENCY: Department of Agriculture and Consumer Services (DACS).

AUTHORITY:

- Section 500, et seq., F.S.
- Rule 5E-6, F.A.C.

APPLICATION PROCESS:

- Make request by phone or letter to DACS, Bureau of Food Grades and Standards, for a Food Permit Inspection.
- Describe location of the food-processing plant, the general plans, and need for a permit.

REVIEW PROCESS:

- Full site inspection by DACS.
- DACS inspector will provide forms for application.
- Completeness review.
- Permit issued or denied.
- Denial is appealable.

TIME REQUIRED: Approximately 1 week.

FEES: None.

DURATION/RENEWAL: 1-year duration, renewed annually provided compliance with sanitation requirements is maintained.

3. DEPARTMENT OF NATURAL RESOURCES (DNR):

Under the Comprehensive Shellfish Control Code (Rule 16R-7, F.A.C.) the DNR has extensive authority over ensuring that proper sanitary measures are utilized when dealing with shellfish, from handling, relaying, shucking, and depuration to harvesting, shipping, and microbiological analyses.

CONTACTS

The Department of Natural Resources
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Division of Marine Resources
904-488-5471
David Heil

Shellfish Center, DNR
260 7th Street
Apalachicola, FL 32320
904-653-8317

Division of Marine Resources
Bureau of Marketing and Extension Services
2015 East Dirac Drive
Tallahassee, FL 32310
904-488-0163

3A. SHELLFISH PROCESSING PLANT CERTIFICATION LICENSE

WHO NEEDS LICENSE: Anyone commercially engaged in purchasing, selling, shucking, packing, or repacking shellfish. Anyone operating any facility in which oysters, clams, mussels, or crabs are processed, including but not limited to: an oyster, clam, or mussel cannery, shucking plant, repacking plant, or controlled purification plant; a shell stock dealership; or a crab or softshell crab processing or shedding plant.

AGENCY: Department of Natural Resources (DNR)

AUTHORITY:

- Section 370.071, F.S.
- Rules 16R-7.007; 16N-27, F.A.C.

APPLICATION PROCESS:

- Submit application to DNR, Division of Marine Resources, on form provided.

- Applicants must already hold valid Saltwater Product Dealer's License under provisions of Section 370.07, F.S.

REVIEW PROCESS:

- Completeness review.
- Site inspection by DNR.
- License issued or denied.
- 21 days to appeal a denial.

TIME REQUIRED:

- Approximately one week following receipt of complete application and completion of successful on-site inspection.

FEES: None.

DURATION/RENEWAL:

- 1-year duration with automatic expiration on June 30 following issuance.
- License is not transferrable.
- If name or owner of facility changes, a new application and recertification are required.

COMMENTS:

- The facility, not the operator, is certified.
- If license issues, the DNR notifies the U.S. Food and Drug Administration so that the dealer's business name and certification license number may be published in the Interstate Certified Shellfish Shippers List.
- All shellfish, whether aquaculture or taken from the wild are required by law to be processed through a certified shellfish facility.
- Dual-purpose operations such as concurrent crab and oyster processing plants are prohibited. Dual-purpose processing plants equaling or exceeding 2500 square feet may be permitted, provided the two operations are physically separated and have separate refrigeration and processing rooms.

SALTWATER OPERATIONS

3B. LICENSE TO CATCH AND POSSESS PROTECTED SALTWATER FISH FOR ARTIFICIAL CULTIVATION

WHO NEEDS LICENSE: Any person wishing to catch and possess for artificial cultivation saltwater fish protected by law.

DEFINITIONS: Saltwater fish: shall include all classes of pisces, shellfish, sponges, and crustacea indigenous to salt water.

AGENCY: Department of Natural Resources (DNR).

AUTHORITY: Sections 370.101, 370.06, F.S.

APPLICATION PROCESS:

- Submit application to DNR, Division of Marine Resources.
- Applicant must hold valid Saltwater Products License.
- Applicant must establish that protected specimens are to be used as stock for artificial cultivation.
- A separate application is required for each species.

REVIEW PROCESS:

- Completeness.
- DNR must ensure that activities comply with laws governing aquaculture leases, licenses, etc.
- License issued or denied.
- Denial is appealable.

TIME REQUIRED: 2 weeks from complete application.

FEES: None.

DURATION/RENEWAL:

- 1-year duration.
- Licenses run from July 1 to June 30.

COMMENTS: License is issued pursuant to Saltwater Products License.

3C. SALTWATER PRODUCTS LICENSE

WHO NEEDS LICENSE: Every person, firm, or corporation which sells, offers for sale, barter, or exchanges for merchandise any saltwater products, or which harvests saltwater products either in commercial quantities or with certain gear or equipment as specified by law.

DEFINITIONS: Saltwater products are any species of saltwater fish, marine plant, or echinoderm, except shells, and salted, cured, canned, or smoked seafood.

AGENCY: Department of Natural Resources (DNR).

AUTHORITY: Section 370.06 (2), F.S.

APPLICATION PROCESS: Submit application to DNR, Division of Marine Resources, on form provided.

REVIEW PROCESS:

- Completeness review.

- License issued or denied.
- Issued either in the name of an individual or a valid boat registration number.

TIME REQUIRED: 1-3 weeks from date of complete application.

FEES:

- Florida resident in the name of individual	\$ 50.00
- Florida resident issued to valid boat registration number	\$100.00
- Nonresident in the name of individual	\$200.00
- Nonresident issued to valid boat registration number	\$400.00
- An alien in name of individual	\$300.00
- An alien issued to valid boat registration number	\$600.00

DURATION/RENEWAL:

- 1 year, from July 1 to June 30.
- Licenses are nontransferable.

COMMENTS: Commercial quantities: 1. More than 100 pounds per person per day, with respect to those species for which no bag limit has been established, provided that the harvesting of two fish or less per person per day shall not be considered commercial quantities regardless of aggregate weight. 2. With respect to those species for which a bag limit has been established, more than the bag limit allowed by law or rule.

3D. SALTWATER PRODUCTS DEALER'S LICENSE

WHO NEEDS LICENSE: Any person, firm, or corporation buying or selling saltwater products in the state of Florida. Specifically:

- (a) Wholesale County Dealer: can sell except to consumer and may buy in the county designated on the license from any saltwater products license holder or from any licensed wholesale dealer;
- (b) Wholesale State Dealer: can sell except to consumer and may buy in any county of the state from any saltwater products license holder or from any licensed wholesale dealer;
- (c) Retail Dealer: sells to the consumer.

EXEMPTIONS:

- Retail Dealer: If deals in or sells saltwater products consumed on the premises or prepared for immediate consumption and sold to be taken

out of any restaurant licensed by the Division of Hotels and Restaurants of the Department of Business Regulation.

- Wholesale Dealer: If have more than one place of business, then license is effective for all places of business if provide department with list of additional places of business upon application.

DEFINITIONS: Saltwater Products: Any species of saltwater fish, marine plant, or echinoderm, except shells, and salted, cured, canned, or smoked seafood.

AGENCY: Department of Natural Resources (DNR)

AUTHORITY: Section 370.07, F.S.

APPLICATION PROCESS: Submit application to DNR on provided form.

REVIEW PROCESS:

- Completeness review.
- Site inspection by DNR inspectors.
- License issued or denied.
- 21 days to appeal denial.

TIME REQUIRED: 1-3 weeks from date of complete application.

FEES:

Resident wholesale county dealer	\$ 300.00
Resident wholesale state dealer	\$ 450.00
Nonresident wholesale county dealer	\$ 500.00
Nonresident wholesale state dealer	\$1000.00
Alien wholesale county dealer	\$1000.00
Alien wholesale state dealer	\$1500.00
Resident retail dealer	\$ 25.00
Nonresident retail dealer	\$ 200.00
Alien retail dealer	\$ 250.00

Note: Fees shown for retail dealers are for the central place of business. Fees for each additional business location are \$10.00, \$25.00, and \$50.00 for resident, nonresident, and alien retail dealers, respectively.

DURATION/RENEWAL: 1-year duration.

COMMENTS:

- License is not transferable.
- Some recordkeeping is statutorily required; become familiar with requirements.

3E. SHELLFISH RELAYING LICENSE

WHO NEEDS LICENSE: Any person wishing to transfer (relay) oysters, clams, or mussels, or transplant sublegal-sized oysters, clams, or mussels to shellfish aquaculture leases for growout or cultivation purposes or to a licensed depuration plant.

DEFINITIONS: Relaying: the transferring of shellfish from a restricted or conditionally restricted area, or an area otherwise closed for harvesting, to an authorized growing area, such as shellfish or aquaculture lease areas, or to a certified controlled purification plant.

AGENCY: Department of Natural Resources (DNR).

AUTHORITY:

- Section 370.16(17), F.S.
- Rule 16R-7.012, F.A.C.

APPLICATION PROCESS:

- Submit application to DNR, Division of Marine Resources, on the form provided.
- Applicant must hold a shellfish or aquaculture lease or own or operate a depuration plant.
- Applicant must hold a valid saltwater products license.

REVIEW PROCESS:

- Completeness review.
- Site inspection by DNR.
- License issued or denied within conditions.

TIME REQUIRED: 2 weeks from date of complete application.

FEES: None.

DURATION/RENEWAL:

- 1-year duration for shellfish transferred to a processing plant.
- 75 days duration for shellfish transferred to an aquaculture or shellfish lease.
- Effective date and expiration date are established by DNR.

COMMENTS:

- No shellfish may be relayed from Florida waters to another state or country, or from waters of another state or country to Florida waters or to a licensed depuration plant.
- Shellfish may be transferred to a lease area for depuration but only one permit per lease will be issued at one time.

3F. LICENSE TO HARVEST SHELLFISH BY MECHANICAL MEANS (SPECIAL ACTIVITY LICENSE)

WHO NEEDS LICENSE: Any person harvesting shellfish by any mechanical means or implement.

DEFINITIONS: Mechanical Harvesting: Any mechanical methods other than hand tongs.

AGENCY: Department of Natural Resources (DNR).

AUTHORITY:

- Sections 370.06(4); 370.16(16); 253.69, F.S.
- Rules 16R-7.004; 16R-7.005, F.A.C.

APPLICATION PROCESS: Submit application to DNR, Division of Marine Resources.

REVIEW PROCESS:

- Completeness review.
- Site inspection by DNR, if necessary.
- License issued or denied.
- 21 days to appeal a denial.

TIME REQUIRED: Approximately 1 week from date of complete application.

FEES: \$25.00

DURATION/RENEWAL:

- 1-year duration. License runs from July 1 or date of issuance to June 30.
- License is not transferable.

COMMENTS:

- Special activity licenses for mechanical harvesting are specific to each separate species and may not be used for other species.
- Become familiar with Rule 16R-7, F.A.C.

4. MISCELLANEOUS WATER MANAGEMENT DISTRICT (WMD) PERMITS

4A. SURFACE WATER MANAGEMENT PERMIT

WHO NEEDS PERMIT: Any person who will construct, alter, maintain, operate, abandon, or remove a surface water management system, including dams, impoundment reservoirs, lakes and ponds, wetlands, streams, ditches and other conveyances, and appurtenant works.

EXEMPTIONS: Certain exemptions exist depending upon size, activities. Check with local WMD to determine applicability.

DEFINITIONS:

- Surface water: Water upon the surface of the earth, whether contained in bounds, created naturally or artificially, or diffused.
- Ground water: Surface water when it flows, seeps, or is pumped onto the earth's surface.

AGENCY: Local Water Management Districts (WMDs).

AUTHORITY:

- Sections 373 and 403, F.S.
- Rules 40A, 40B, 40C, 40E, F.A.C.

APPLICATION PROCESS:

- Submit application to local WMD. (Each WMD has its own form.)
- Preapplication meeting with the WMD is highly recommended.

REVIEW PROCESS:

- Details vary with each district, but essentially similar.
- Application completeness and technical review.
- Public hearings.
- Interagency coordination.
- General administrative reviews.

TIME REQUIRED: 45 to 90 days from time completed application is received by the WMD, depending upon particular district.

FEES: Vary from district to district.

DURATION/RENEWAL: Vary from district to district.

COMMENTS: TYPES OF PERMITS INCLUDE:

- Individual construction permits: issued for large projects (size thresholds vary with districts) and projects with significant impacts on water resources. WMD board awards permit.
- General construction permits: issued for smaller projects (size thresholds vary with districts) with minimal wetland impacts. Permits issued by WMD staff without governing board approval.
- Conceptual approvals: issued approving the concept of a surface water management system. Does not authorize construction.

4B. CONSUMPTIVE USE PERMIT

WHO NEEDS PERMIT:

- Persons who withdraw or divert water in amounts exceeding threshold limits.

- Persons who use a well in which the outside diameter of the largest permanent water-bearing casing is 6 inches or greater. Criteria vary both within and between various WMDs.

DEFINITIONS: Consumptive use: any use of water which reduces the supply from which it is withdrawn or diverted.

AGENCY: Water Management Districts.

AUTHORITY:

- Chapters 373 and 403, F.S.
- Rules 40A-2; 40B-2; 40C-2; 40D-2; 40E-2, F.A.C.

APPLICATION PROCESS:

- Submit application to local WMD.
- Because of variances between WMDs, it is suggested that applicant schedule a pre-application meeting.
- Temporary permit may be issued while regular permit application is pending.

REVIEW PROCESS:

- Completeness review.
- Public hearings.
- Administrative review.
- Agency coordination.

TIME REQUIRED: 45 to 90 days from time completed application is received by the WMD. Varies between districts.

FEES: Varies with each WMD. Check with each.

DURATION/RENEWAL:

- Issued for variable durations, not to exceed 20 years (7 years in St. Johns River WMD)
- All renewal applications are treated in the same manner as the initial permit application.

COMMENTS: Pre-application conference is highly recommended due to variations between WMDs.

5. DEPARTMENT OF ENVIRONMENTAL REGULATION (DER):

The DER is charged with ensuring that aquaculture activities do not have significant adverse impacts upon surface water, ground water, and wetlands. The official mandate relative to DER is that it is public policy to conserve waters of the state and to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife and fish and other

aquatic life, as well as the prevention, abatement, and control of the pollution of the air and waters of the state.

An aquaculturist should check to see if discharge permits are required. The regulations are complex, and it is advisable to proceed with caution.

CONTACTS

The Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-4552

Division of Water Facilities
904-487-1855

Division of Waste Management
Bureau of Waste Planning and Regulation
904-488-0300

5A. GENERAL PERMIT FOR DISCHARGE TO SURFACE WATER

WHO NEEDS PERMIT: Persons wishing to engage in activity for which a general permit exists (see text below).

EXEMPTIONS:

- Any existing or proposed installation which the DER determines does not or will not cause the issuance of air or water contaminants in sufficient quantity, with respect to its character, quality, or content and the circumstances surrounding its location, use, and operation, as to contribute significantly to the pollution problems within the state.
- Permits not required by DER if the discharged water is confined to private property. EPA may require discharge permit under NPDES.

DEFINITIONS: A general permit is one issued by the DER pursuant to Section 403, F.S. or rules of the DER authorizing certain activities which cause minimal adverse environmental impact when performed in accordance with specific requirements and practices set forth in the permit.

AGENCY: Department of Environmental Regulation (DER).

AUTHORITY:

Section 403.814, F.S.

Rules 17-4.520, 4.040; 17-4, Part III, F.A.C.

APPLICATION PROCESS:

- Submit application to DER District Office on forms provided or in writing at least 30 days before beginning work.

- Applications must include a description of the project and supporting documents to demonstrate that the project qualifies for a general permit.

REVIEW PROCESS:

- Completeness review.
- Site inspection by DER officials if needed.

TIME REQUIRED: 30 days from submittal of notice of proposed use of a general permit.

FEES: \$25.00

DURATION/RENEWAL:

- 5 years maximum.
- Renewals must be requested at least 30 days prior to expiration.
- Permittee may request continued use of a general permit.

COMMENTS:

- Permit is valid only for the specific activity indicated.
- DER must be allowed access to the permitted facility to inspect for compliance.

5B. PERMIT TO CONSTRUCT, AND PERMIT TO OPERATE, AN INDUSTRIAL WASTEWATER TREATMENT AND DISPOSAL SYSTEM.

WHO NEEDS PERMIT: Any person discharging wastewater into surface or ground water of the state that may be reasonably expected to be a source of pollution.

EXEMPTIONS: Persons holding a valid general permit from the DER specifically authorizing the discharge activity, or persons who have been exempted by DER on the basis that the discharge will not contribute significantly to pollution problems within the state.

AGENCY: Department of Environmental Regulation (DER).

AUTHORITY:

- Section 403, et seq., F.S.
- Rules 17-3, -4, -650, -660, F.A.C.

APPLICATION PROCESS:

- Submit application to DER on form provided.
- Attach necessary technical and environmental data.
- Have application certified by a Florida professional engineer.

REVIEW PROCESS:

- Completeness review.

- Administrative hearing can be requested.

TIME REQUIRED: Approved or denied within 90 days after receipt of complete information.

FEES:

- Fees relate to the size or type of installation to be utilized by the applicant.
- Construction permit fee ranges: \$1000 to \$5000.
- Temporary operation permit fee ranges: \$500 to \$3000.
- Operation permit fee ranges: \$500 to \$2000.

DURATION/RENEWAL:

- 5-year maximum duration.
- Renewals for operation permits must be submitted at least 60 days prior to expiration.

COMMENTS: Applications will be evaluated on a case-by-case basis until sufficient data exist to establish limits for industry effluent limits for aquaculture.

5C. STORMWATER DISCHARGE FACILITIES PERMITS

WHO NEEDS PERMIT: Persons discharging stormwater off site which is likely to contribute to a violation of water quality standards.

DEFINITIONS:

- Stormwater Discharge Facility: stormwater management system which discharges stormwater into surface water of the state.
- New Stormwater Discharge Facility: a facility not in existence, licensed, or permitted on or before 2/1/82, or modified after 2/1/82.

VARIOUS PERMITS:

- Stormwater General Permits.
- Wetlands Stormwater Discharge Facility Permit.
- New Stormwater Discharge Facility Permit.
- New Stormwater Discharge Facility Construction Permit.
- Management and Storage of Surface Water Permit.

AGENCY: Department of Environmental Regulation (DER) delegated the permitting authority to local Water Management Districts, where applications are to be submitted, except the Northwest Management District, where applications are submitted to the DER.

AUTHORITY:

- Sections 403.061, 403.087, F.S.
- Rule 17-15, F.A.C.

APPLICATION PROCESS: Check with local Water Management Districts (except in Northwest Management District, submit to DER district office).

LOUISIANA

According to most statistics, Louisiana leads the nation in terms of acres devoted to aquaculture and the dollar value of aquaculture production. There is an abundance of practical information available on aquaculture from Louisiana State University in Baton Rouge. The University has taken an active educational and promotional role relative to aquaculture.

The legislative and regulatory framework in which aquaculture functions is deceptively simple at first glance, in that there appear to be few permits required. The potential aquaculturist must, therefore, become familiar with laws that directly affect aquaculture operations but do not require a permit.

1. DEPARTMENT OF WILDLIFE AND FISHERIES (DWF):

The DWF is required to rigidly enforce all law relative to the protection, propagation, and selling of birds and game; all law relative to the protection, propagation, and sale of all species of fish in the state, whether saltwater or freshwater fish, shellfish, or fish of any description; and all law relative to shrimp. The DWF also is required by law to assist in the protection of private fishponds used by individuals to propagate fish.

CONTACTS

Department of Wildlife and Fisheries
Mr. Benny Fontenot
2000 Quail Drive
Baton Rouge, LA 70808
504-765-2328

1A. AQUACULTURE CERTIFICATE

WHO NEEDS CERTIFICATE: Any person who may engage in the propagation, production, sale, transportation, or possession of fish, including hybrid striped bass, or minnows raised or produced in private earthen reservoirs in the state.

DEFINITIONS:

- Aquaculture: the production of fish in a controlled environment in private waters on private lands. Aquaculture includes, but is not limited to, the production of catfish, crawfish, freshwater pawns, and shiners and other bait species. Also, the cultivation, growing, harvesting and/or marketing of domesticated fish. LSA R.S. 56:355, 56:411(2).
- Fish: All finfish, shellfish, crustaceans, frogs, turtles, and other living aquatic resources which have a sport or other economic value. Finfish are any of numerous cold-blooded aquatic vertebrates that characteristically swim with fins, breathe with gills, and are covered with skin or scales. LSA R.S. 56:8(37), (38).
- Domesticated fish: fish that are spawned and grown, managed, harvested and marketed on an annual, semiannual, biennial, or short-term basis, in privately owned waters. Specifically includes hybrid striped bass. LSA R.S. 56:411(4), (6).
- Privately owned water: artificial earthen reservoirs which are constructed with levees so as to prevent at all times the ingress and egress of fish life from public waters and such reservoirs shall not include lands of natural streams or natural lake beds. LSA R.S. 56:411(5).

AGENCY: Department of Wildlife and Fisheries (DWF).

AUTHORITY: LSA R.S. 56:412.

APPLICATION PROCESS: Submit application to DWF on form provided.

REVIEW PROCESS:

- Completeness.
- DWF will send biologist to site to ensure that operation meets the definition of a domestic fish farm and that species is legal.

TIME REQUIRED: 1-3 weeks from completed application.

FEES: \$15.00

DURATION/RENEWAL:

- Annual; initial certificate expires with the calendar year following the date of the certificate.
- Renewal upon payment of \$15.00 renewal fee on form provided.

COMMENTS:

- In the sale or transportation of fish or minnows over the highways of the state, a bill of lading shall accompany each shipment showing the

species of fish or minnows contained in the shipment, number of pounds, the origin of the payload, destination of the shipment, the name of the consignee and consignor, the grower's certificate number and name. LSA R.S. 56:412(3).

- Aquaculturists operating under the Domestic Fish Farming provisions of Title 56 are exempt from the provisions of LSA R.S. 56:306 regarding wholesale/retail dealer's licenses and shall be entitled by virtue of their certificate to sell domesticated hybrid striped bass, catfish, carp, drum, and buffalo fish in any size, quantity, or limit without restriction in state or out of state, provided that the domestic fish farmer shall notify the DWF by mail, on forms provided by the DWF and postmarked 48 hours prior to the transportation of each shipment of commercial fish over the highways of the state. A duplicate copy of this form shall accompany each shipment of fish. LSA R.S. 56:412(4).

- Domestic Fish Farming provisions do not apply to the harvesting of crawfish, or to the production and harvesting of catfish in private ponds, or to the transporting of crawfish from the place where they are harvested or catfish from a private pond to the first point of sale, or to the sale to the first purchaser of crawfish from the person who harvested them, or of catfish which are produced and harvested in private ponds. LSA R.S. 56:415

- Importing saltwater gamefish into state: Prior to shipment, the buyer or handler of such shipment shall notify the DWF of its pending arrival and shall possess a bill of lading therefor. LSA R.S. 56:327(A)(1)(c).

- Species prohibited for use in aquaculture: bass, crappie, striped bass, bream, tetra or other exotic fish (unless approval is obtained from DWF. LSA R.S. 56:411(6)

- Catfish to be used for stocking purposes may be shipped into the state by a person, firm, or corporation possessing any necessary wholesale license, but only when accompanied by certification of inspection issued by the state or country of origin. The certificate shall certify the apparent freedom of the catfish to be used for stocking purposes from contagious or infectious disease and shall be based upon an actual inspection of the catfish to be used for stocking purposes to be shipped or moved within a period of 48 hours preceding the date of shipment. LSA R.S. 3:2356.

- Species prohibited from importation into the state: carnero catfish, all of the family Clariidae, freshwater electric eel, carp (except those taken in state waters, provided such fish shall be dead when in a person's possession), common carp, goldfish, and all species of tilapia, without first obtaining written permission of the secretary of the Department of Wildlife and Fisheries. Piranha and Rio Grande tetra are absolutely prohibited from importation into the state. The DWF has authority to regulate importation of freshwater fish not native to Louisiana. LSA R.S. 56:319(A), (E), 319.1.

2. DEPARTMENT OF NATURAL RESOURCES (DNR), COASTAL MANAGEMENT DIVISION (CMD):

The CMD of the Louisiana Department of Natural Resources is charged with implementing the Louisiana Coastal Resources Program under authority of the Louisiana State and Local Coastal Resources Management Act. Under this authority, the CMD has established a Coastal Use Permit (CUP) program to help ensure the proper protection, management, and reasonable use of the state's coastal wetlands. The CUP program requires persons intending to undertake certain activities within the coastal zone to apply for a permit.

CONTACTS

Department of Natural Resources, Coastal Management Division
Jim Holcomb, Rocky Hinds, Lynn Wellman, Greg Ducote
504-342-7591
P.O. Box 44487
Baton Rouge, LA 70804-4487

2A. COASTAL USE PERMIT (SOURCE OF WATER IN THE COASTAL ZONE):

WHO NEEDS PERMIT: Any person commencing a use of state or local concern (as defined by LSA R.S. 49:2 14.25) in the coastal zone (as defined by LSA R.S. 49:2 14.24).

AGENCY: Department of Natural Resources (DNR), Coastal Management Division (CMD).

AUTHORITY:

- LSA R.S. 49:214.21, et seq.
- LAC 43:1.701., et seq.

APPLICATION PROCESS:

- Submit application on Form 4345 (U.S. Army Corps of Engineers form).
- Submit vicinity maps, plan plat, cross-sectional view of work, etc. as required.

REVIEW PROCESS:

- Completeness (strict compliance).
- Section manager then determines if (1) a permit is needed, and if so, then (2) whether the use is of state or local concern. If local, then will refer applicant to the proper parish authority.

TIME REQUIRED:

- If no direct and significant impact on coastal water, a letter from CMD will be forthcoming within 7-10 days.
- If a CUP is required, the average time is 60-90 days, with 45 days being the minimum.

FEES:

- \$20.00, nonrefundable for application.
- \$.04 per cubic yard processing fee based upon cubic yardage of dredge and fill material with a maximum of \$2000 for any one permit issued.

DURATION/RENEWAL:

- Initial permit not to exceed 5 years (work must commence within the first 2 years; however, a 2-year extension of time to commence is possible).
- Renewable.

COMMENTS:

- On application be sure to give complete names and addresses of adjacent property owners, and meet all other requirements to avoid delay.
- CMD will forward via overnight mail copies of application to the U.S. Army Corps of Engineers, New Orleans District. Local parish(es) involved will also receive copies of application.
- Source of water not in the coastal zone: all surface waters in rivers and streams are state owned. Absent restrictions under the LA Coastal Resources Management Act (LCRMA) (if in the coastal zone) these waters may be diverted for private uses but must be returned to their channel after use. LCC Arts. 657, 658.

3. DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ):

The Louisiana Department of Environmental Quality (DEQ) is the primary agency in the state concerned with environmental protection and regulation. The department shall have jurisdiction over matters affecting the regulation of the environment within the state, including but not limited to the

regulation of air quality, noise pollution control, water pollution control, the regulation of solid waste disposal, the protection and preservation of the scenic rivers and streams of the state, the regulation and control of radiation, the management of hazardous waste, and the regulation of those programs which encourage, assist, and result in the reduction of wastes generated within Louisiana.

CONTACTS

Department of Environmental Quality, Office of Water Resources
Bryan McDowell (Permits), Jan Cedars (Fees)
504-342-9025, 504-342-6363, respectively
P.O. Box 44274
Baton Rouge, LA 70804

3A. LOUISIANA WATER DISCHARGE PERMIT SYSTEM (LWDPS) PERMIT

WHO NEEDS PERMIT: Anyone who will discharge any pollutants into the water of the state from any facility or activity. Concentrated aquatic animal production facilities are specifically named.

DEFINITIONS:

- Pollutant: any substance introduced into the waters of the state by any means that would tend to degrade the chemical, physical, biological, or radiological integrity of such environment.
- Concentrated aquatic animal production facility: a hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for permit requirements if it contains, grows, or holds aquatic animals in either of the following conditions:
 - A. Cold-water fish species or other cold-water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
 - 1. Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
 - 2. Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.
 - B. Warm-water fish species or other warm-water aquatic animals in ponds, raceways, or other similar structures

which discharge at least thirty (30) days per year, but does not include:

1. Closed ponds which discharge only during periods of excess runoff; or
2. Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

AGENCY: Department of Environmental Quality (DEQ), Office of Water Resources.

AUTHORITY: LAC 33:IX.107, 301.B.1, 301.C.4., 301.K.1.,2., Appendix C.

APPLICATION PROCESS: Apply on application form provided.

REVIEW PROCESS:

- Completeness review.
- Limits will be set on pollutants.

TIME REQUIRED:

- 3-4 months for initial draft.
- Following draft, public notice will be run with a time period for comments (approximately another 30 days).

FEES: Minimum \$227.50; fees rated individually based upon a point system taking into consideration factors such as flow volume and pollutant load flow.

DURATION/RENEWAL:

- Annual, from July 1 through June 30 of each year.
- At least 180 days prior to expiration, submit application for renewal.

COMMENTS:

- Even if a facility does not meet the criteria for a concentrated aquatic animal production facility, it may be designated as one anyway by DEQ on a case-by-case basis if it is determined to be a significant contributor of pollution to state waters. LAC 33:IX.301.K.3.
- Louisiana is not an EPA NPDES-delegated state; a separate NPDES permit may be required.

4. DEPARTMENT OF HEALTH AND HOSPITALS (DHH), OFFICE OF PUBLIC HEALTH, SEAFOOD UNIT:

The Department of Health and Hospitals is charged with protecting the consuming public against food-borne disease. The DHH must also ensure that all food products are produced from a safe and sanitary source, and are prepared, processed, packaged, handled, stored, and transported in a sanitary manner which will prevent contamination, spoilage, or adulteration.

CONTACTS

Department of Health and Hospitals, Seafood Unit
325 Loyola Avenue
New Orleans, LA
Mr. Charles Conrad
504-568-8227

4A. SHELLFISH TRANSPLANT LICENSE

WHO NEEDS LICENSE: Any one intending to transplant shellfish.

AGENCY: Department of Health and Hospitals (DHH), Office of Public Health, Seafood Unit.

AUTHORITY: LA Sanitary Code, Chapter IX

APPLICATION PROCESS:

- Make application after the first and by the fifteenth of any month.

- Permit will issue for first 15 days of the following month.

REVIEW PROCESS: Completeness.

TIME REQUIRED: 3-15 days

FEES:

- \$50.00 fee.

- \$500.00 certified check, fully refundable, as cash bond for compliance.

DURATION/RENEWAL: Fee is one time only for a particular transplant.

COMMENTS: Process requires hiring of off-duty commissioned deputy from Sheriff's Department to oversee operation (usually around \$10.00 per hour).

4B. PERMIT TO OPERATE PROCESSING PLANT

WHO NEEDS PERMIT: Anyone intending to operate a seafood processing plant.

AGENCY: Department of Health and Hospitals (DHH), Office of Public Health, Seafood Unit.

AUTHORITY: LA Sanitary Code, Chapter IX.

APPLICATION PROCESS: Application will be taken on site during inspection.

REVIEW PROCESS:

- Completeness

- Site inspection

TIME REQUIRED: 3-4 days for final inspection and permit.

FEES: \$150.00

DURATION/RENEWAL: Annual

COMMENTS: Agency usually inspects facility four to five times per year to ensure compliance with regulations.

4C. DEPURATION PLANT/WET STORAGE PERMIT

WHO NEEDS PERMIT: Anyone intending to utilize a depuration plant or wet storage facility.

AGENCY:

- Department of Health and Hospital (DHH), Office of Public Health, Seafood Unit.

AUTHORITY: LA Sanitary Code, Chapter IX.

APPLICATION PROCESS:

- Application will be taken on site (usually filled out by the agency upon inspection).
- If meet standards, temporary permit will be issued on site.
- Final permit will be mailed thereafter.

REVIEW PROCESS:

- Completeness.
- Site inspection.

TIME REQUIRED:

- Initial inspection within 3-4 days of request.
- Final permit will be issued within 30 days after inspection.

FEES: \$150.00

DURATION/RENEWAL: Annual, with renewal annually.

5. DEPARTMENT OF AGRICULTURE AND FORESTRY

The Department of Agriculture and Forestry is charged with exercising all functions of the state relating to the promotion, protection, and advancement of agriculture and forestry. The Department also registers pesticides and permits pesticide applicators.

CONTACTS

Department of Agriculture and Forestry, Pesticides Division
Mr. Bobby Simoneaux
5825 Florida Boulevard
Baton Rouge, LA 70806
504-925-3787

5A. PRIVATE APPLICATOR/COMMERCIAL APPLICATOR PERMIT

WHO NEEDS PERMIT: Private applicators using restricted-use pesticides.

DEFINITIONS:

- General Use Pesticide: a pesticide which is classified for general use by the Department or by EPA.
- Restricted-Use Pesticide: a pesticide which is classified as restricted by the Department or by EPA under F.I.F.R.A. (Federal Insecticide, Fungicide, and Rodenticide Act).
- Private Applicator: an individual who is certified to apply or supervise the application of any restricted-use pesticide for the purpose of producing any agricultural commodity on land owned or leased by the private applicator or for the purpose of applying or supervising the application of any restricted-use pesticide on lands owned by all other without compensation. Producing an agricultural commodity shall include related aspects of production, such as storage or transportation of an agricultural commodity produced by the private applicator.

AGENCY: Department of Agriculture and Forestry.

AUTHORITY: LSAR.S. 3:3201 et seq.

APPLICATION PROCESS: A private applicator must take a closed book examination.

REVIEW PROCESS: N/A.

TIME REQUIRED: 1-4 weeks.

FEES: \$10.00 certification fee.

DURATION/RENEWAL: 3 years; renew by attending recertification meeting or re-testing, at applicant's option.

MARYLAND

Maryland is highly receptive to and desirous of promoting aquaculture within its borders. Aquaculture is not highly developed in Maryland because of its relative newness to the state. However, it appears that most of the involved state agencies are strongly in favor of keeping regulatory constrictions to a minimum in order to streamline and facilitate aquaculture expansions, while at the same time maintaining environmental integrity.

1. DEPARTMENT OF NATURAL RESOURCES (DNR):

The Department of Natural Resources is responsible for the enforcement of all aquaculture laws, regulations, and rules, including those pertaining to water use. The Department acts as the state's trustee for water resources.

CONTACTS

Benjamin M. Florence
Chief, Finfish Hatcheries
Department of Natural Resources
Tawes St. Office Building
Annapolis, MD 21401
301-974-3733

Ken McKinney
Water Resources Administration, Department of Natural Resources
Tawes St. Office Building
Annapolis, MD 21401
301-974-2456

1A. AQUACULTURE PERMIT (BREEDER'S LICENSE)

WHO NEEDS PERMIT/LICENSE: Any one who engages in aquaculture.

DEFINITIONS:

- Aquaculture: includes the community rearing of fish and aquatic plants for sale, trade, barter, or shipment.
- Fish: any finfish, crustaceans, mollusks, amphibians, and reptiles which spend the majority of their life cycles in water and any part, egg, offspring, or dead body of any of these species.

AGENCY:

- The Department of Natural Resources (DNR).
- The Department of Agriculture.

AUTHORITY:

- MD Natural Resources Code Ann., Section 10-1301 (1991).

APPLICATION PROCESS:

- Apply in writing to the DNR for a permit to breed, propagate, and sell any species of game and freshwater fish protected by law, in ponds or lakes which the applicant owns or leases.
- The Department upon receipt of a permit fee of \$5.00 may issue to the applicant a breeder's license permitting him to hatch, rear, transport, sell, barter, or exchange any fish.

REVIEW PROCESS:

- Permit is conditioned upon allowing the Department to inspect at reasonable hours any facility, equipment, or aquatic animal or plant involved in the permittee's aquaculture operations.
- If the permittee refuses inspection, the permit may be revoked.

TIME REQUIRED: Varies with size of facility.

FEES: \$5.00

DURATION/RENEWAL: Expires on 12/31 following the date of issuance.

1B. WATER USE PERMIT

WHO NEEDS PERMIT:

- Every person who intends to appropriate or use or begin to construct any plant, building, or structure which may appropriate or use any waters of the state, whether surface water or ground water. This section does not apply to use of water for agricultural purposes, if the average annual water use is less than 10,000 gallons per day. However, a person using less than an annual average of 10,000 gallons of water per day for agricultural purposes may apply for a permit to appropriate or use waters of the state.
- The Department shall issue a permit to a person using water prior to July 1, 1988, for agricultural purposes upon written application.

AGENCY: Department of Natural Resources, Water Resources Administration.

AUTHORITY: MD Natural Resources Code Ann., Section 8-801, et seq. (1990).

APPLICATION PROCESS:

1. An applicant for a new or modified permit under this subtitle shall ascertain the names and addresses of all current owners of property contiguous to the parcel upon which the proposed activity would occur.
2. The applicant shall: (a) serve personally or by certified mail a notice upon each owner of contiguous property and upon appropriate local officials that application has been made to the Department of Natural Resources for a new or modified permit, (b) describe in the notice the proposed activity.
3. The applicant shall submit to the Department a list of the names and addresses of all contiguous property owners and appropriate local officials.
4. The Department may waive the notice requirements of this section and the holding of a hearing if the requested appropriation or use of waters of the state is for an average annual water use of 10,000 gallons per day or less.
5. The Department may waive the holding of a public informational hearing if the requested appropriation or use of waters of the state is greater than an average annual water use of 10,000 gallons per day but less than an average annual water use of 50,000 gallons per day.

6. The applicant shall provide the Department with satisfactory proof that the proposed withdrawal of water will not jeopardize the state's natural resources.

REVIEW PROCESS:

- The Department reviews triennially every appropriation and use of water for which a required permit is granted, for quantity limitations and other conditions established by permit.
- Unless a permit is for the periodic appropriation of use of water for agricultural purposes, the Department shall correct a permit where the total quantity of water permitted to be appropriated and used is not used or needed.

TIME REQUIRED: Approximately 2-8 weeks, depending upon size of project.

FEES: No fee.

DURATION/RENEWAL:

- No set duration for agricultural uses.
- 12-year duration
- 1 month before expiration, a renewal notice and application must be sent.

2. DEPARTMENT OF THE ENVIRONMENT:

The Department of the Environment enforces and promulgates rules and regulations pertaining to water discharge for aquaculture facilities. The Department protects the waters of the state from harmful pollutants that may be discharged from various activities.

CONTACTS

Ed Gertler
Department of the Environment
2500 Broening Highway
Baltimore, MD 21224
301-631-3323

2A. WATER DISCHARGE PERMIT

WHO NEEDS PERMIT: A person who intends to construct, install, modify, extend, alter, or operate an aquaculture facility if its operation could cause or increase the discharge of pollutants into the waters of the state. If less than 10,000 gallons per day for aquaculture purposes, such activities may be exempt from permit requirements. If over 100,000 pounds per year of warm-

water fisheries, applicant must file a federal NPDES application; if under, activity is excluded from NPDES permitting.

AGENCY: Department of the Environment.

AUTHORITY: MD Health and Environment Code Ann., Section 9-322, et seq. (1987).

APPLICATION PROCESS: Department provides the same form for both federal and state application.

REVIEW PROCESS:

- Subject to review or inspection at any time.
- Department usually conducts a public hearing.

TIME REQUIRED: Minimum 5 months (includes time for public notices).

FEES: No fees for minimal discharges (contact Department).

DURATION/RENEWAL:

- 5 years.
- Renew by applying 180 days prior to expiration.

COMMENTS: Maryland is an EPA-delegated state for NPDES permits.

3. DEPARTMENT OF HEALTH:

The Department of Health is responsible for maintaining the general health of the people of Maryland. This includes enforcement of rules and regulations governing the production, distribution, and serving of food products within the state.

CONTACTS

Betty Hardin
Department of Health and Mental Hygiene, Division of Food Control
4201 Patterson Avenue
Baltimore, MD 21215
301-764-3535

3A. FOOD ESTABLISHMENT LICENSE

WHO NEEDS LICENSE: Any one who operates a food establishment.

DEFINITIONS:

- Food establishments include: (1) food service facility, (2) food processing plant.
- Food processing plant: any place used for or in connection with the commercial manufacturing, preparing, processing, packaging, canning, freezing, storing, distributing, labeling, or holding of food for human consumption. Includes: crabmeat picking plant, food manufacturing

plant, shellfish plant. A picking plant is where crabmeat is steamed, cooked, or picked for sale.

AGENCY: Various local county health departments.

AUTHORITY: MD Public Health Code Ann., Section 21-300, et seq. (1987).

APPLICATION PROCESS:

- Apply in writing to county health department; must include:
 - (1) applicant's name and address,
 - (2) location of food establishment,
 - (3) type of facility.

REVIEW PROCESS: License holder must permit inspection upon request.

TIME REQUIRED: 1 to 3 months.

FEES: Varies from county to county, not to exceed \$150.00.

DURATION/RENEWAL:

- 1 year
- Crabmeat plant license expires April 1 of each year.
- Shellfish license expires August 31 of each year.

COMMENTS:

- Vehicle requirements: any vehicle that is used to transport, store, or sell shellfish or crabs for commercial purposes shall be capable of maintaining the shellfish or crabs at the temperature established by the Department.
- The vehicle requirements do not apply to a shellfish harvester who delivers the shellfish to a processor, retailer, or wholesaler.

SOUTH CAROLINA

South Carolina, with its Aquaculture Permit Facilitator (APF), appears very progressive in its attitude toward the facilitation of aquaculture within the state. The permitting format of South Carolina, as set out below, provides the opportunity for interagency coordination and exchange of knowledge, while allowing the APF an overview of permit requirements that is extremely helpful to the applicant.

1. DEPARTMENT OF AGRICULTURE:

No aquaculture permit, per se, exists in South Carolina. However, an Aquaculture Permit Assistance Office was created within the Department of Agriculture by the South Carolina Legislature, S.C. Code Ann.,

Section 46-51-10 (1976). As per statute, an APF must be designated by the Commissioner of Agriculture to carry out the functions of the Aquaculture Permit Assistance Office. The APF shall provide a potential aquaculturist with such information, services, and assistance as may be necessary, including but not limited to:

- (1) assistance in obtaining all permits from the various permitting agencies required to operate an aquaculture operation;
- (2) technical assistance from the various state and private agencies and institutions involved in aquaculture research;
- (3) assistance throughout the entire permit process and information concerning changes to a state or federal law or regulation which may affect the outcome of a permit application or change the permitting process;
- (4) application forms.

Significantly, the statute required the APF to meet with all affected state department heads to establish one application form which must be used by all the permitting agencies when a potential aquaculturist is seeking permits, licenses, and certifications to begin an aquaculture operation. The APF shall recognize the value and integrity of the permitting programs of each of the state's regulatory agencies and seek to maintain the division of authority. (S.C. Code Ann., Section 46-51-20.)

The APF can be reached as follows:

South Carolina Department of Agriculture
Aquaculture Permit Facilitator Office
P.O. Box 11280
Columbia, SC 29211
Attention: David Thompkins
803-734-2210

PERMIT PROCESS: All applicants should initially contact the APF to describe the proposed aquaculture project, especially the site, design, and species. Site and design, more than species, tend to be more important in the determining factors affecting the degree of permitting complications. In many cases, the initial meeting with the applicant can lead to the elimination of certain permit requirements because of a suggested slight modification in siting or some other aspect of the project.

ONE APPLICATION FOR ALL PERMITS: The one application form for the entire permit process will be provided by the APF and will consist of five pages of basic information to be shared with appropriate state agencies. The APF does

not issue permits, and the creation of the APF did not remove authority from any permitting agencies. However, the APF will guide the applicant through the process and will even attend hearings with the applicant.

According to Mr. Thompkins, the APF does not publish an actual permitting guide because it is felt by the agency that a large amount of general permitting information would likely serve to confuse a prospective applicant and possibly negatively interfere with permitting.

It is the experience of the APF that total permitting time is approximately 6 weeks if wetlands areas are avoided. Additionally, if an NPDES permit is required, the time period for that is approximately 180 days.

1A. AQUACULTURE AND RELATED ACTIVITIES PERMIT:

WHO NEEDS PERMIT: Anyone engaged in various aquaculture activities, including siting, design, species selection, and production.

AGENCY: Aquaculture Permit Facilitator, Department of Agriculture

AUTHORITY: S.C. Code Ann., Section 46-51-10 (1976).

APPLICATION PROCESS:

- Contact the Department of Agriculture, Aquaculture Permit Facilitator (APF), for initial telephone interview.
- Discuss siting, design, species, and all other aspects of proposed operation to give the APF an overview.
- Complete application provided.
- APF will suggest course of procedure to minimize and facilitate permitting requirements.

REVIEW PROCESS:

- Completeness.
- APF will look at application and determine if initial course of permitting remains proper.

TIME REQUIRED:

- Approximately 6 weeks for all permits if wetland areas are avoided.
- If NPDES permit is required, the time period for that alone is approximately 180 days.

FEES: To be discussed in initial interview with APF.

DURATION/RENEWAL: To be discussed in initial interview with APF.

COMMENTS:

- Aquaculture is defined as the cultivation, production, or marketing of domesticated aquatic organisms. S.C. Code Ann., Section 46-1-10.

-Although permitting is implemented through the APF and the single permit application, basic background information and agency contact numbers are provided below in order to provide a more thorough understanding of the process. Additionally, formatting herein for South Carolina will differ somewhat from that of other states due to the unique permitting system within the state.

2. DIVISION OF MARINE RESOURCES, SOUTH CAROLINA WILDLIFE AND MARINE RESOURCES DEPARTMENT:

Marine Resources has jurisdiction over all fish, fishing, and fisheries in the coastal marine waters of South Carolina. Law enforcement personnel of the Department are conservation officers who enforce the state's fish and game laws.

CONTACTS

South Carolina Wildlife and Marine Resources Department
Division of Marine Resources
P.O. Box 12559
217 Fort Johnson Road
Charleston, SC 29412
803-762-5047
Ted Smith
Wally Jenkins

2A. IMPORTATION OF WILDLIFE PERMIT: It is unlawful for any person to import, possess, or transport for the purpose of release or to introduce or bring into South Carolina any live species of marine or estuarine fish, crustacean, mollusk, or other marine invertebrate not already found in the wild, or not native to the state.

To receive a permit the Department will investigate and inspect the wildlife. The Department must find (1) the wildlife was taken lawfully in the jurisdiction in which it originated, and (2) the importation, release, or possession of the wildlife is not reasonably expected to adversely impact the natural resources of the state or its wildlife populations.

Authority: S.C. Code Ann., Section 50-16-10, et seq.

Approximate time for processing permit is 7-14 days.

2B. DEALER/PROCESSOR LICENSE: Anyone planning to process or sell aquaculture products must first obtain a license.

The licenses are issued annually. Cost for a Wholesale Seafood Dealer License is \$50.00, and the cost for a Land and Sell License is \$25.00.

Note: Department of Health and Environmental Control Certification for operating an opening, packing, or shipping establishment may be required prior to obtaining license.

2C. SUBLEGAL SIZED CLAM PERMIT: It is unlawful to take, harvest, possess, sell, purchase, or import any hard clam of the genus Mercenaria of less than one inch in thickness, measured as the maximum depth of the intact clam from the exterior surface of one valve of the shell to the exterior surface of the opposite valve. Clams of less than the minimum legal size limit specified herein must be returned alive immediately to the bottoms where found.

It is lawful for a clam hatchery or mariculture operation to possess clams of less than the minimum size limit specified in this section and to purchase, sell, or transplant sublegal sized clams for nursery or growout purposes, upon obtaining a special permit from the division.

Authority: S.C. Code Ann., Section 50-17-855.

Approximate time for processing permit is 7-14 days.

3. DIVISION OF FRESHWATER FISHERIES, SOUTH CAROLINA WILDLIFE AND MARINE RESOURCES DEPARTMENT

Freshwater Fisheries is charged with ensuring the health and maintenance of South Carolina's freshwater fisheries.

CONTACTS

South Carolina Wildlife and Marine Resources Department
Division of Freshwater Fisheries
Rembert C. Dennis Building
P.O. Box 167
Columbia, SC 29202
Mr. Chip Sharpe
803-734-4012
Mr. Joe Logan
803-734-3943

3A. GAMEFISH BREEDER'S LICENSE: Any person who will sell, offer for sale, barter, or transport gamefish for strictly stocking/restocking purposes must obtain license. Annual fee is \$25.00, renewable annually. Approximate time for processing license is 14 to 21 days; more if public hearing is required.

3B. HYBRID STRIPED BASS AQUACULTURE PERMIT: Prior to engaging in a business trafficking in reciprocal hybrid striped bass, a person shall first obtain at no cost a permanent certificate of permission from the Department. Before engaging in a business of producing or processing hybrid striped bass, a person shall first obtain a permit from the Department for an annual fee of \$100.00, renewable yearly by paying another annual fee and submission of application. The single fee and permit are applicable to a processor, producer, or both. Application for permits shall be on forms provided.

Permits issued must include the species utilized, conditions and specifications for facilities and ponds, requirements for the possession, taking, holding, transportation, importing, or exporting a reciprocal hybrid striped bass, production reporting requirements, and other provisions that the Department determines to be necessary. Note: agency personnel find that one pervasive problem exists in processing the application: that is, applicants often fail to submit a blueprint or a simple sketch map of the facility. Authority: S.C. Code Ann., Section 50-18-10. et seq. Approximate time for processing permit is 30 to 60 days.

3C. PERMIT TO IMPORT HYBRID STRIPED BASS: A person outside South Carolina is required to obtain an aquaculture permit before selling, shipping, or causing to be shipped into the state reciprocal hybrid striped bass. This permit is issued pursuant to the Hybrid Striped Bass Aquaculture Permit set out above.

3D. PERMANENT CERTIFICATE OF POSSESSION--HYBRID STRIPED BASS

Every business establishment which is a point of sale for hybrid striped bass is required to be permitted. A certificate of permission must be conspicuously displayed. The certificate is valid until ownership or location of the business changes. The purpose of the certificate is to allow enforcement to inspect the location. There is no charge for the certificate. Approximate time for processing certificate is 48 hours.

3E. NON-NATIVE SHRIMP PERMIT: A person is required to obtain a Non-Native Shrimp Permit in order to import shrimp into the state. Application is made on forms provided. There is no fee. Permits run for one year, renewable annually by application. Approximate time for processing permit is 30 to 60 days.

4. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (DHEC)

The Department is charged with safeguarding the public health and protecting the environment.

CONTACTS

South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
803-734-5300

4A. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT:

Persons discharging in a manner that requires a NPDES permit may obtain same through this division of DHEC. South Carolina is a delegated state in that it handles its own permitting for NPDES permits.

4B. SHELLFISH PERMITS: Permits or approvals are required for certain activities, such as (1) to artificially cleanse or depurate bivalve shellfish taken from restricted harvesting areas (permit is joint with Division of Marine Resources); (2) to relay bivalve shellfish from closed/restricted areas to open harvesting areas; (3) to condition bivalve shellfish from approved growing areas; and (4) to operate a bivalve shellfish processing or packing plant, or to transport bivalve shellfish. Approximate time for processing permits is 14 to 21 days.

4C. DEALER/PROCESSOR CERTIFICATION: Certification is required for anyone processing or selling bivalve shellfish and finfish in coastal areas. It must be obtained prior to obtaining Dealer/Processor License from Division of Marine Resources. Approximate time for processing certification is 7 to 14 days.

5. SOUTH CAROLINA WATER RESOURCES COMMISSION

The Water Resources Commission ensures prudent water management, as well as overseeing a reporting system where daily water use exceeds 100,000 gallons per day.

CONTACTS

South Carolina Water Resources Commission
1500 Highway 17, North, Suite 212
Surfside Beach, SC 29577

5A. WATER USE REPORTING PROGRAM: A Water Use Report must be filed quarterly if single-day maximum use will exceed 100,000 gallons per day. A System Description Form must also be completed. No processing is necessary.

6. DIVISION OF WATER QUALITY AND SHELLFISH SANITATION, DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

The Division is charged with ensuring shellfish sanitation and will approve, if needed, qualified activities relating to shellfish.

CONTACTS

Division of Water Quality and Shellfish Sanitation, DHEC
2600 Bull Street
Columbia, SC 29201
803-734-5232

7. SOUTH CAROLINA DEPARTMENT OF AGRICULTURE

The Department is charged with ensuring that facilities used for processing aquacultural products are in compliance with all proper health standards.

CONTACTS

South Carolina Department of Agriculture
Supervisory Inspector, Division of Laboratories
1101 Williams Street
P.O.Box 11280
Columbia, SC 29211
803-737-2070

Processing facilities should contact the Department of Agriculture, Food and Cosmetic Section, Division of Laboratories, to ensure that any proposed processing facility will be in compliance with U.S. Food and Drug Administration regulations.

8. SOUTH CAROLINA DEPARTMENT OF FERTILIZER AND PESTICIDE CONTROL

The South Carolina Pesticide Control Act is statutorily administered by the College of Agricultural Sciences at Clemson University.

CONTACTS

College of Agricultural Sciences
Department of Fertilizer and Pesticide Control
256 Poole Agricultural Center, Clemson University
Clemson, SC 29634-0394
Attn: Ms. Betty Schoen

8A. RESTRICTED-USE PESTICIDE PRIVATE APPLICATOR LICENSE

Anyone who will use or supervise the use of a restricted-use pesticide must first contact their local cooperative extension agent to schedule a test. Licenses will issue through the Department of Fertilizer and Pesticide Control.

Licenses usually issued for 5 years, at a fee of \$1.00 per year, renewable for additional 5-year periods. Licenses expire on December 31st of the year the license is dated to expire.

Authority: S.C. Code Ann., Section 46-13-10, et seq.

Approximate time for processing license is 7 days after taking the test.

TEXAS

The Texas legislature has recognized the emerging importance of aquaculture through its relatively recent enactments, including the Fish Farming Act of 1989 wherein the Texas Department of Agriculture was designated as the lead agency required to establish and implement a fish-farming program. In addition to transferring authority from the Parks and Wildlife Department to the Department of Agriculture, the law also created an Aquaculture Executive Committee.

Some of the duties set out for the Aquaculture Executive Committee included the responsibility of monitoring the status of the aquaculture industry, coordinating aquaculture-related activities between state agencies, and promotion of the timely development of an aquaculture industry in an environmentally responsible manner.

1. TEXAS DEPARTMENT OF AGRICULTURE

The Texas Department of Agriculture (TDA) is responsible for the development and encouragement of the fish-farming industry, as well as the marketing of fish-farm products. The primary goal of the fish-farm program is to develop and expand the industry to benefit the state economy and provide an alternative farming opportunity. The TDA is the primary agency responsible for licensing and permitting of actual fish-farming operations.

CONTACTS

Fish-Farm Program
Texas Department of Agriculture
P.O. Box 12847
Austin, TX 78711
512-463-7602

1A. FISH-FARMER'S LICENSE

WHO NEEDS LICENSE: Anyone fish farming: anyone engaged in the business of producing, transporting, possessing, and selling cultured fish or shellfish raised in private ponds for resale, consumption, or stocking purposes.

DEFINITIONS:

- Cultured fish: farm-raised fish or shellfish.
- Private pond: a pond, reservoir, vat, or other structure capable of holding cultured fish in confinement wholly within or on the enclosed land of an owner, lessor, or lessee.
- Owner: a fish farmer licensed by TDA.

AGENCY: Texas Department of Agriculture (TDA)

AUTHORITY: V.T.C.A., Agriculture Code, Section 134.001, et seq.

APPLICATION PROCESS: Submit complete application and fee to TDA, Fish-Farm Program.

REVIEW PROCESS:

- Completeness review.
- TDA may consult with the Texas Parks and Wildlife Department and/or the Texas Department of Health regarding the proposed operation.

TIME REQUIRED: 1-2 weeks, usually.

FEES: \$50.00 for initial license.

DURATION/RENEWAL:

- Valid for 2 years after the date of issuance.
- Renewal requires submission of a completed application and a fee which is based upon gross receipts from the sale of cultured fish during the first 21 months of the period covered by the expiring license.

COMMENTS:

- The holder of a fish-farmer's license shall maintain a record of the sales and shipments of cultured fish. The record is open for inspection by designated employees of the department.
- A vehicle, from which no fish sales are made, transporting cultured fish from a fish farm shall carry a bill of lading that shows the number

and species of cultured fish carried, the name of the owner and the location and license number of the fish farm from which the fish were transported, and the destination of the cargo.

1B. FISH-FARM VEHICLE LICENSE

WHO NEEDS LICENSE: A vehicle used to transport fish from a fish farm for sale from the vehicle is required to have a fish-farm vehicle license.

AGENCY: Texas Department of Agriculture (TDA)

AUTHORITY: V.T.C.A., Agriculture Code, Section 134.012

APPLICATION PROCESS: Same as fish-farmer's license.

REVIEW PROCESS: Same as fish-farmer's license, but no other agencies are usually involved.

TIME REQUIRED: 1-2 weeks.

FEES: Same fee as a fish-farmer's license.

DURATION/RENEWAL: Same term as a fish-farmer's license.

COMMENTS: It is important to note that the fish-farmer vehicle license is not required for a vehicle owned and operated by the holder of a fish-farmer's license.

1C. CULTURED-FISH PROCESSING PLANT LICENSE

WHO NEEDS LICENSE: Any person operating a cultured-fish processing plant. A separate license is required for each plant.

AGENCY: Texas Department of Agriculture (TDA)

AUTHORITY: V.T.C.A., Agriculture Code, Section 134.031, et seq.

APPLICATION PROCESS: Submit complete application and license fee to TDA, Fish-Farm Program.

REVIEW PROCESS:

- Completeness review.
- TDA may consult with the Texas Department of Health (TDH) on the proposed operation.

TIME REQUIRED: 1-2 months, usually. Processing time may vary due to size of operation and other factors.

FEES: \$100.00.

DURATION/RENEWAL:

- One year from the date of issuance.

- Renewal upon submission of completed application and renewal fee, unless TDA determines that the licensee violated Section 134 of the Texas Agriculture Code or any rule adopted under that chapter.

COMMENTS: In addition to this license, Texas law requires that a Certificate of Compliance (shellfish: oysters, clams, mussels) or a Food Manufacturer Registration (all other aquatic species other than crabs) be obtained from the TDH. Both the TDH and the TDA have rule-making and inspection authority.

1D. RESTRICTED-USE PESTICIDE PRIVATE APPLICATOR LICENSE

WHO NEEDS LICENSE: Anyone applying restricted-use pesticides, unless operating under the direct supervision of a licensed applicator.

DEFINITIONS: Restricted-Use Pesticide: a pesticide which, when applied in accordance with its directions for use, warnings, and cautions and for uses for which it is registered or for one or more such uses, or in accordance with a widespread and commonly recognized practice, may generally cause, without additional regulatory restrictions, unreasonable adverse effects on the environment, or injury to the applicator or other persons, and which has been classified as a restricted-use pesticide by the DACS or the administrator of the EPA.

AGENCY: Texas Department of Agriculture (TDA)

AUTHORITY: V.T.C.A., Agriculture Code, Section 487.151, et seq.

APPLICATION PROCESS:

- Submit application to the TDA, Bureau of Pesticides, on form provided.
- Applicant must pass a written or oral examination (first contact local county extension office for testing schedules).

TIME REQUIRED: Approximately 1 week from passage of examination.

FEES:

- Initial fee not to exceed \$100.00.
- Renewal fee to be at time of renewal.

DURATION/RENEWAL:

- 4-year duration.
- Renewal examination may be required.

2. TEXAS PARKS AND WILDLIFE DEPARTMENT

The Texas Parks and Wildlife Department (TPWD) oversees conservation, management, and protection of the state's fish, shellfish, and wildlife

resources. Many of the licenses and permits required for aquacultural activities originate with the TPWD.

CONTACTS

License Sales

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
512-389-4822

Legal Counsel and Permits Branch
Resource Protection Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
512-389-4633, or
512-389-4644 (Mr. Bill Harvey)

2A. SHELLFISH CULTURE LICENSE

WHO NEEDS LICENSE: Anyone fish farming: anyone engaged in the business of producing, transporting, possessing, and selling cultured shellfish raised in private ponds for resale, consumption, or stocking purposes.

DEFINITIONS:

- Cultured fish: Farm-raised fish or shellfish.
- Shellfish: Aquatic species of crustaceans and mollusks, including oysters, clams, shrimp, prawns, and crabs of all varieties.

AGENCY: Texas Parks and Wildlife Department (TPWD).

AUTHORITY:

- V.T.C.A., Parks and Wildlife Code, Section 51.001, et seq.
- V.T.C.A., Agriculture Code, Sections 134.001, 134.011.

APPLICATION PROCESS: Send letter to TPWD, License Sales, requesting license application, and state the owner's or manager's name, home address, business address, and the county where the business is located.

REVIEW PROCESS: Completeness.

TIME REQUIRED: 7-10 days after receipt of application.

FEES: \$50.00.

DURATION/RENEWAL: 12 months, beginning on September 1, expires on August 31 of the following year.

COMMENTS:

- The licensee shall make and keep records showing purchases, sales, and shipments of shellfish. Such records shall be open to inspection by authorized TPWD personnel.

- A separate license is required for each tract of land on which a private pond is used for shellfish culture.

2B. EXOTIC-SHELLFISH CULTURE PERMIT

WHO NEEDS PERMIT: Any person who may import, possess, propagate, or transport exotic shellfish. Required in addition to Shellfish-Culture License.

DEFINITIONS: Exotic shellfish: shellfish imported alive into Texas for shellfish culture purposes, not including shellfish taken from the high seas adjacent to the Texas coast.

AGENCY: Texas Parks and Wildlife Department (TPWD), Legal Counsel and Permits Branch, Resource Protection Division.

AUTHORITY: V.T.C.A., Parks and Wildlife Code, Section 51.009.

APPLICATION PROCESS: Letter of application to TPWD, Legal Counsel and Permits Branch, Resource Protection Division, stating the name and address of permittee, shellfish-culture license number, location where exotic shellfish will be held, species/source of exotic shellfish, description of culture facilities and effort taken to ensure nonescapement into the wild, as well as the name of any agents who will be handling the shellfish.

REVIEW PROCESS:

- Completeness.
- Consistency with TPWD permit regulations.

TIME REQUIRED:

- 7-10 days after receipt of complete application, if no facility inspection.
- Additional 2-3 weeks if facility inspection is determined to be necessary.

FEES: None.

DURATION/RENEWAL:

- Permit valid for one shipment only.
- Subsequent permits require a permit amendment for each shipment.

COMMENTS:

- No permit will be issued unless the applicant furnishes sufficient evidence showing that the shellfish are free of disease.
- Permittee will destroy the exotic shellfish if, for any reason, it appears that a release of the shellfish to public water is imminent.
- No permit will be issued for shellfish defined as harmful or potentially harmful, as set out in 31 T.A.C. 57.111, et seq.

2C. SHELLFISH-SOURCING PERMIT (PERMIT FOR TAKING BROOD STOCK)

WHO NEEDS PERMIT: The holder of a fish-farmer's license and a shellfish-culture license may obtain broodstock during a closed season, in closed public waters. (Not required during open season.)

AGENCY: Texas Parks and Wildlife Department (TPWD), Legal Counsel and Permits Branch, Resource Protection Division.

AUTHORITY: V.T.C.A., Parks and Wildlife Code, Section 51.010.

APPLICATION PROCESS: Submit letter of application stating name and address of permittee, the shellfish-culture license number, the numbers and species of shellfish to be collected, areas where shellfish are to be taken, the proposed method of taking, and the period when shellfish will be taken.

REVIEW PROCESS:

- Completeness.
 - Compliance with TPWD regulations.
 - Water quality classification of target waters is evaluated;
- Coordination with the Texas Department of Health may be required.

TIME REQUIRED: 7-10 days after receipt of completed application.

FEES: None.

DURATION/RENEWAL: Permit expires when authorized collection is completed.

2D. EXOTIC SPECIES PERMIT

WHO NEEDS PERMIT: Anyone who will possess, propagate, transport, or sell exotic harmful or potentially harmful fish, shellfish, or aquatic plants.

DEFINITIONS: Exotic fish, shellfish, or aquatic plants: a nonindigenous fish, shellfish, or aquatic plant that is not normally found in the public waters of Texas.

AGENCY: Texas Parks and Wildlife Department (TPWD), Legal Counsel and Permits Branch, Resource Protection Division.

AUTHORITY:

- V.T.C.A., Parks and Wildlife Code, Sections 66.007, 66.015.
- V.T.C.A., Agriculture Code, Section 134.020.

APPLICATION PROCESS:

- Submit complete permit application.
- Possess a valid fish-farmer's license (Texas).
- Demonstrate fish-farm design will prevent escape of species.
- Demonstrate that a fish farm within the 100-year floodplain is constructed so as to exclude all floodwaters, and in such a manner so

that no section of the crest of the dike or levee is less than 1 foot above the flood elevation height. Dike/levee design or construction must be approved before issuance of a permit.

- Applicant must not have violated any provision of the exotic species rules during the previous year.
- Inspection of facilities must be granted.
- Upon request, an adequate number of exotic species shall be provided for identification and analysis.
- Upon request, documentation to identify harmful or potentially harmful species for which permit is sought must be provided.

REVIEW PROCESS:

- Completeness.
- Compliance with TPWD rules and regulations.

TIME REQUIRED: 1-2 months, if facility is ready for inspection.

FEES: None.

DURATION/RENEWAL:

- Permit expires yearly on August 31.
- Renew by submitting application and annual report. State therein whether material/substantial changes have been made during the prior permit period.

2E. WHOLESALE FISH DEALER LICENSE

WHO NEEDS LICENSE: Any person engaged in the business of buying for the purpose of selling, canning, preserving, processing, or handling for shipments or sale fish, oysters, shrimp, or other commercial edible aquatic products to retail fish dealers, hotels, restaurants, cafes, or consumers.

AGENCY: Texas Parks and Wildlife Department (TPWD), License sales.

AUTHORITY: V.T.C.A., Parks and Wildlife Code, Sections 47.001(3), 47.009.

APPLICATION PROCESS: No formal application; obtain from License Sales or from TPWD law enforcement field offices.

REVIEW PROCESS: Not applicable.

TIME REQUIRED:

- Immediately if in person.
- 1 or more weeks, if by mail.

FEES: \$400.00

DURATION/RENEWAL: One year, expiring on August 31.

2F. RETAIL FISH DEALER'S LICENSE

WHO NEEDS LICENSE: A person who operates a place of business and buys for the purpose of sale or sells or offers for sale to a consumer fresh or frozen edible aquatic products, other than aquatic products sold by restaurants for and ready for immediate consumption in individual portion servings and which are subject to the limited sales or use tax.

AGENCY: Texas Parks and Wildlife Department (TPWD), License Sales.

AUTHORITY: V.T.C.A., Parks and Wildlife Code, Sections 47.001(4), 47.011.

APPLICATION PROCESS: No formal application; obtain from License Sales or from TPWD law enforcement field offices.

REVIEW PROCESS: Not applicable.

TIME REQUIRED:

- Immediately if in person.
- 1 or more weeks, if by mail.

FEES: \$30.00.

DURATION/RENEWAL: One year, expiring on August 31.

2G. RETAIL DEALER'S TRUCK LICENSE

WHO NEEDS LICENSE: A person who engages in the business of selling edible aquatic products from a motor vehicle to consumers.

AGENCY: Texas Parks and Wildlife Department (TPWD), License Sales.

AUTHORITY: V.T.C.A., Parks and Wildlife Code, Section 47.013.

APPLICATION PROCESS: No formal application; obtain from License Sales or from TPWD law enforcement field offices.

REVIEW PROCESS: Not applicable.

TIME REQUIRED:

- Immediately if in person.
- 1 or more weeks, if by mail.

FEES: \$50.00

DURATION/RENEWAL: One year, expiring on August 31.

3. TEXAS WATER COMMISSION

The Texas Water Commission (TWC) is responsible for protection and management of the state's water resources. TWC executes its responsibilities through planning, development, and implementation of water quality standards, as well as regulating and permitting water use and discharges.

CONTACTS

(Water Discharge)
Executive Director
Texas Water Commission
Water Quality Division-Applications Unit
P.O. Box 13087, Capitol Station
Austin, TX 78711-3087
512-463-8200
Leslie Pedde or Jack Thibodeau

Applications Unit
Water Use Section
Texas Water Commission
P.O. Box 13087, Capitol Station
Austin, TX 78711-3087
512-371-6379
William G. Crolley, P.E.

3A. WATER USE PERMIT (PERMIT TO USE STATE WATER)

WHO NEEDS PERMIT: Any person who may appropriate any state water or begin construction of any work designed for the storage, taking, or diversion of water without first obtaining a permit.

AGENCY: Texas Water Commission (TWC).

AUTHORITY: V.T.C.A., Water Code, Section 11.121, et seq.

APPLICATION PROCESS:

- Submit complete application.
- With dams/levees under 6 feet, sketches of the facility will suffice; with dams/levees over 6 feet, a plan from a Texas certified engineer is required.
- Publish notice in newspaper with county-wide circulation in the county in which the permit will have effect.

REVIEW PROCESS:

- Completeness and conformity with statutes.
- Applications are subject to public notice and review and comment from governmental agencies and individuals such as holders of Water Use Permits.

TIME REQUIRED:

- Approximately 6 months
- Public hearing could increase time to 10-18 months.

FEES: \$100 application fee and \$1.25 per page filing fee. Permit applicant also pays costs for public notices. Use fees will also be assessed.

DURATION/RENEWAL: Permits may be issued with or without an expiration date. TWC periodically reviews the permit to ensure compliance.

3B. WATER DISCHARGE PERMIT

WHO NEEDS PERMIT: Anyone discharging wastes into or adjacent to state waters.

AGENCY: Texas Water Commission (TWC), Water Quality Division.

AUTHORITY:

- V.T.C.A., Water Code, Chapter 26.
- 31 Texas Administrative Code 305.

APPLICATION PROCESS:

- Submit letter outlining operational criteria. (Do this prior to submitting permit application to ensure necessity for a permit. Permit will be required if discharge is deemed a significant source of water pollution. Determination of whether permit is required is made on a case-by-case basis. If permit is not required, the TWC requests that the District be notified when the operation starts discharging.)
- Submit the following, at a minimum:
 - (1) The location of the facility, preferably by designation on a map.
 - (2) The source of water to be used; flow-through rate; receiving body of water.
 - (3) Type(s) of species to be raised and the feeding rate (information is used to determine the expected water quality in the water discharged).
 - (4) General description of the operation, i.e., is it a hatchery, grow out, continuous, batch, and/or processing.
 - (5) Name and telephone number of a company representative.

REVIEW PROCESS:

- Administrative completeness review for such items as fees, signatures, form completeness.
- Technical review.
- If technical review is complete, then draft permit will be issued. (Notice will be placed at applicant's expense in newspaper; adjacent landowners, downstream landowners, county judges, health officials, various conservation groups will be notified; public hearing will be held if requested.)

TIME REQUIRED: Approximately 10 months, on average.

FEES: \$150.00 application fee.

DURATION/RENEWAL:

- Maximum 5 years from date of issuance.
- Renewal by permit process, but some notices are eliminated at this stage.

COMMENTS:

- According to the Water Quality Division, usually an aquaculture operation without an on-site processing operation does not require a TWC permit, as the anticipated water quality impacts are not significant. All processing operations must be permitted, as the anticipated water quality impacts are significant.
- Texas is not an EPA NPDES-delegated state; thus, a separate NPDES permit may also be required.

4. TEXAS DEPARTMENT OF HEALTH

The Texas Department of Health (TDH) is responsible for the protection of the public health, including the regulation of food, drugs, and cosmetics. Texas Health and Safety Code, subchapters A-C, and the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301, et seq.

Aquaculture is regulated primarily within the Food and Drug, and the Shellfish Sanitation Control Divisions of the TDH. The TDH also has authority over the drugs that can be used in aquaculture (but it is the practice to defer to FDA), as well as regulation of water quality, production, harvesting, processing, transporting, storing, handling, and packaging of aquacultural products to be sold for human consumption.

CONTACTS

Shellfish Sanitation Division
Texas Department of Health
1100 West 49th Street
Austin, TX 78756
512-458-7510

Division of Food and Drugs
Texas Department of Health
Mr. Tom Brinck
1100 West 49th Street
Austin, TX 78756-3182
512-458-7248

4A. CERTIFICATE OF COMPLIANCE

WHO NEEDS CERTIFICATE: Any person processing or packaging shellfish for sale as food after harvest is classified as a shellfish dealer or shipper.

DEFINITIONS: Processing or Packaging: During harvest, shellfish are placed in bags or other approved containers. Any activity whereby the shellfish are removed from the original containers and placed in other containers is container processing or packaging.

AGENCY: Texas Department of Health (TDH), Shellfish Sanitation Control Division.

AUTHORITY: V.T.C.A., Health and Safety Code, Section 436.020.

APPLICATION PROCESS:

- Submit application to the TDH, Shellfish Sanitation Control Division.
- Include detailed floor plans and operating procedures.

REVIEW PROCESS:

- Completeness and consistency with TDH rules.
- Facility inspection.
- TDA, TPWD may also review for compliance.

TIME REQUIRED: Within 7 days of plant inspection, if in compliance.

FEES: None.

DURATION/RENEWAL:

- Yearly, but expires on August 15 of each year.
- New application must be submitted for renewal.

COMMENTS: Each certificate is numbered and specifically sets out the activities authorized.

4B. FOOD MANUFACTURER REGISTRATION

WHO NEEDS REGISTRATION: Anyone who will manufacture food for sale to a consumer at wholesale or retail; or any person, firm, or corporation that represents itself as responsible for the purity and the proper labeling of any article of food by placing or having placed its name and address on the label of any food.

DEFINITIONS: Manufacture: the process of combining or purifying food and packaging food for sale to a consumer at wholesale or retail.

AGENCY: Texas Department of Health (TDH), Division of Food and Drugs.

AUTHORITY: V.T.C.A., Health Safety Code, Section 431.221, et seq.

APPLICATION PROCESS: Obtain and submit application.

REVIEW PROCESS: Facility inspection will be conducted before or after issuance of registration (usually after, according to the Department).

TIME REQUIRED: If in compliance, approximately 30 days.

FEES: \$25.00 to \$500.00 based upon gross annual dollar volumes of less than \$25,000 to \$5 million or more, respectively.

DURATION/RENEWAL:

- Annual, expiring August 31 of each year.
- Renew by submitting updated registration form and fee.

5. TEXAS ANIMAL HEALTH COMMISSION

The Texas Animal Health Commission (TAHC) has responsibility for the protection of the public and domestic livestock from communicable diseases. Although the Texas Parks and Wildlife Department has primary responsibility for the regulation of importation of aquaculture species, the TAHC is responsible for ensuring that such species shipped into the state be free of disease. Thus, a Certificate of Veterinary Inspection is required to ensure that a species is disease free. The certification is usually issued prior to importation by a veterinarian or qualified testing laboratory. The fee for such certification will depend on the number of animals to be inspected and the degree of testing required.

H. PERMIT STREAMLINING AND COORDINATION

1. Regulatory Systems Streamlining: South Carolina as a Model System

In our review of aquaculture permitting in the model states, we were particularly impressed by both the structure and implementation of South Carolina's permit coordination system. South Carolina has streamlined its system by installing an Aquaculture Permit Facilitator within the South Carolina Department of Agriculture. Although South Carolina has no permit for aquaculture, permits for aquaculture-related activities, such as water use, land use, and culture of certain species are required.

Permitting in South Carolina is initiated by contacting the Aquaculture Permit Facilitator's office and obtaining an application. This application includes information that all affected agencies within the state will use during the review process. (In fact, the Permit Facilitator was mandated by statute to meet with all affected agency heads in the state to develop this comprehensive application form to be used by all agencies.) Additionally, preliminary discussions with the Permit Facilitator may lead to minor modifications in the project which will eliminate the need for certain permits, saving both time and money. The completed application is forwarded to the

affected agencies for review, comment, and approval. The Permit Facilitator works with the applicant throughout the entire process.

The advantage of a system like South Carolina's is that it allows one person--the Permit Facilitator--to maintain an overview of a potential project. The Permit Facilitator can provide guidance to the applicant while at the same time protect the integrity of the state's resources in accordance with the particular economic and environmental agenda of that state.

Our favorable impression of the structure of the South Carolina system was reinforced when we researched the manner in which it has been implemented. The creation of the Aquaculture Permit Facilitator did not remove any authority from any permitting agency. The retention of individual agency authority appears to be crucial to a successful centralized permit system because it prevents jurisdictional power struggles. The system appears to work well. Any state which is sincere in its desire to streamline aquaculture permitting would do well to examine closely the system adopted by South Carolina.

2. Coordinating Permit Applications When No System-Wide Streamlining Procedures Are in Place

In states where no system like South Carolina's is in place, the permit process still may be streamlined somewhat, although on a more piecemeal basis. In general, as Chapters 1-3 show, the aquaculturist will need some permits that do not overlap the Corps' authorizations. However, there are broad areas of overlap--two types of authorizations that both the aquaculturist and the Corps (in its capacity as dredged material disposer) may need when setting up a CAAF. First, both may need authorization to discharge waste materials and water into state waters. Second, both may need authorizations required under the Coastal Zone Management Act (CZMA), such as Louisiana's Coastal Use Permit (CUP).

When both the aquaculturist and the Corps need to secure, for example, a state permit to authorize the pumping of wastewater into an adjacent waterway, it may make sense for both entities to apply for a single permit. Even though the aquaculture surface use will be by far the primary source of wastewater, it may be more economical for the Corps to include its submission for minimal periodic use in the same application with the aquaculturist.

In most cases, pre-application telephone conferences and meetings are recommended anyway to facilitate the permit process and to avoid wasting time applying for unnecessary permits. At these meetings, applicants should discuss with agency permit administrators whether the Corps and the aquaculturist

should file joint or separate discharge permit applications and/or coastal use permit applications.

PART TWO: LEGAL QUESTIONS RAISED BY CONTAINMENT AREA AQUACULTURE

CHAPTER 4: DUTIES, RESPONSIBILITIES, AND POTENTIAL LEGAL QUESTIONS IN A CONTAINMENT AREA AQUACULTURE FACILITY

INTRODUCTION

The purpose of this chapter is to identify and discuss in general terms the legal issues that may arise in a particular containment area aquaculture project. Because the Corps has attempted a program like this only on a small scale with a shrimp farm near Brownsville, TX, there is no way to predict with absolute certainty what legal issues may come up in the CAAF context. However, it is possible to predict with some confidence the kinds of questions that may surface when the disposal of dredged material takes place on the same site as aquaculture, by looking at the types of questions the Corps typically faces when siting a new DMCA, the types of questions the aquaculturist typically faces when selecting a new aquaculture site, and new questions created by the coincidence of the two.

Before addressing the first substantive legal issue, the reader should bear the following caveats in mind:

(1) This chapter is designed to alert readers to legal issues that may come up in the course of siting, planning, designing, constructing, and operating a CAAF--IT IS NOT INTENDED TO GIVE DEFINITIVE ANSWERS TO AN EXHAUSTIVE LIST OF LEGAL QUESTIONS. Since every site will have its own peculiar set of circumstances, it is impossible to do much more than provide a guide to the broad contours of the most important questions that may come up under the law of the states in which containment aquaculture is most likely to occur.

(2) The primary reason for identifying potential legal issues is for planning purposes. Participants in a CAAF should anticipate problem areas and try to address them in the legal documents and agreements they draft to set up the project. Therefore, this chapter should be read in close conjunction with the next chapter, which discusses the legal documents and the provisions they should contain to allocate rights, obligations, and responsibilities among the parties to a CAAF. In other words, the issues "flagged" in this chapter should be addressed in the documents that are drafted to set up, operate, and regulate an aquaculture venture on a DMCA, to the extent that is possible.

(3) Finally, this chapter is intended for a broad audience which includes nonlawyers as well as lawyers. It is designed to identify and discuss in a general way the types of legal questions that may arise when an

aquaculture venture takes place on a dredged material containment area. The chapter is organized issue by issue, and counter-argument by counter-argument. To accommodate the legal audience, citations to legal authorities are included, so that lawyers may locate the relevant leading cases, statutes, and regulations in the model states.

ISSUE-BY-ISSUE DISCUSSION OF LEGAL QUESTIONS:

A. Chemical Suitability and Soil Testing Issues

Hypothetical ways in which the issue may come up: In the unlikely event that the aquaculturist's crop is somehow damaged by contaminants in the sediments in the site or added to the DMCA site with dredged material during a disposal event, the aquaculturist might blame the damage on the Corps and argue that the Corps failed to screen the site or test the sediments adequately.

Discussion: Although "most dredged material does not contain elevated concentrations of chemical contaminants," contaminants "may be found in some aquatic sediments especially fine-grained, organic materials."¹ Tatem discusses the availability of some contaminants to aquatic organisms² and recommends that certain tests and analyses be required as part of the aquaculture site selection and planning process, in order to screen out sites that pose a health risk to aquatic organisms and the consumers who eventually ingest them.³ Obviously, where the results of these tests show "any indications that the DMCA will not be suitable for production of a high quality crop that can be sold for a profit, then there is no need to continue testing" and the site should be ruled out at that stage in the process.⁴ For example, any sediments that are found to be "toxic to laboratory test animals" will not be

¹Tatem, H.E. 1990. "Determination of the Chemical Suitability of a Dredged Material Containment Area for Aquaculture" at pp. 3-4. TR EL-90-12. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

²Tatem at 9.

³Tatem at 15 and 28 (Figure 2). Figure 2 is a flow chart summarizing Tatem's recommendations as to the tests that should be conducted, and the sequence in which those tests should take place. Table 7 contains specific recommendations as well, and also indicates the costs of each test.

⁴Tatem at 20.

suitable for aquaculture production of "a crop...for human consumption."⁵

Testing requirements apply to both the sediments in the containment area and the dredged material to be added later.

In addition to these questions, other issues should be investigated that are related to the issue of chemical suitability. The "Site Selection" report in this series⁶ includes a set of checklists which cover such matters as prior land use and pesticide use history. Between the information in Tatem's Technical Report and the information in the "Site Selection" report, potential participants in a CAAF should be able to determine early in the site selection process whether a site will be suitable for containment area aquaculture. In addition, Corps Districts should take advantages of resources at the Environmental Lab at the Waterways Experiment Station (WES) to stay abreast of the latest developments in sediment testing technology⁷ to assure that potential CAAF sites are adequately screened. However, answers to factual questions do not necessarily furnish answers to the legal questions raised by the prospect of conducting aquaculture--that is, production of food for human consumption--on a site used for the disposal of dredged material.

The difficulty is that compliance with Tatem's recommendations may not prevent the emergence later in the project of potentially troublesome legal questions. Sediment tests must comply with the most up-to-date data and technology in order to place the entity responsible for testing in the best possible legal position. Given current inspection standards and practices in the seafood industry,⁸ it is highly unlikely that a contaminated product

⁵Tatem at 7.

⁶See Footnote 2 (page 4) for a complete list of the technical reports in the CAAP series.

⁷This area of science is "virtually exploding." (Telephone call, Dr. Henry Tatem, Environmental Laboratory, WES, 8-14-91.) Even since completion of Tatem's report, progress has been made in the evaluation of contaminated sediments. Therefore, WES involvement in the site selection process from the earliest stages is essential.

⁸It may be, by the time this Technical Report goes to press, that the federal government will have adopted mandatory and/or comprehensive seafood inspection legislation, reducing the possibility further still. For a general understanding of the debate over the necessity for mandatory seafood inspection, see Perkins, B.E., et al. 1989. "Mandatory Seafood Inspection: Do We Need It?" 9 Water Log 3-17 (Publication of the Mississippi-Alabama Sea Grant Legal Program). Even so, existing federal regulations may help prevent contaminated seafood from entering the marketplace and harming consumers. For

would ever reach a consumer; even so, if a consumer suffers an adverse reaction from eating the contaminated product, would the aquaculturist have a cause of action against the Corps? Would the consumer? What difference would it make if the aquaculturist had been involved in deciding which tests should be conducted, and had paid for part of them? Questions like this would arise if an injured person sued the Corps alleging that it failed to perform enough tests, or the right types of tests, or that it negligently performed those tests. Questions like this would have to be answered in order to determine whether the Corps is liable, and if so, to what extent.

The legal issues raised by questions of chemical suitability pose perhaps the most troublesome questions with respect to the entire site selection process. In fact, its placement first in this chapter is no accident. The importance of site selection cannot be overemphasized, and the legal implications of decisions about chemical suitability constitute perhaps the single most important factor in the potential success of containment area aquaculture. Similarly, those parties interested in becoming involved in a CAAF have identified that issue as one of "important concern."⁹ The legal questions become more complicated when the two functions (disposal of dredged material and the production of aquatic organisms), which normally take place in different places,¹⁰ take place on a single piece of real estate. Conducting aquaculture operations on the same site as an active DMCA raises legal questions in two broad categories:

1. Uncertainty as to the Standard of Care

One of the key issues in a negligence claim is determining the duty of care. In other words, what is the standard of care that those responsible for testing must meet in order to avoid negligence liability in this subject area? The definition of the scope of the duty likewise defines what constitutes a

example, the United States Food and Drug Administration (FDA) has guidelines for contaminants such as pesticides and PCBs in aquatic organisms intended for human consumption. (Tatem 26)

⁹At a 1982 workshop in Galveston, TX, on aquaculture and DMCA's, participants expressed concern about "the effect of sediment contaminants such as metals, pesticides, petroleum hydrocarbons, etc., on aquaculture" (Tatem 4).

¹⁰However, aquatic organisms have been harvested near dredging operations for years, so there is precedent for the peaceful coexistence of dredging and aquaculture, though not in the same configuration.

breach of that duty. Because the CAAF idea is new and has only been tested on a limited basis, there are no existing guidelines or cases to define the scope of the duty. Furthermore, in the factual context presented here, the process of trying to define the scope of that duty is complicated in several ways.

First, there have been "no national criteria for labeling a sediment as chemically contaminated."¹¹ Furthermore, "[i]t is impossible to analyze any given sediment sample for every potential chemical contaminant."¹² Also, while at this writing there are no rigid contamination standards, this area of technology is developing rapidly with more and more information available with every passing month.¹³ Finally, the soil samples taken from the large land areas involved in DMCAs will necessarily be "spotty" in nature.

Given these limitations and the other concerns raised by Dr. Tatem, what amount of testing and what sequence of testing will be legally sufficient to avoid liability for negligence? In addition to the steps recommended in the "Site Selection" report, potential sites should be tested per Tatem's recommendations and with early WES involvement to assure adequate screening for possible contaminants, to the extent scientifically and practically feasible; in addition, developments in this rapidly developing area of technology (including, but not limited to, the adoption of regional or national standards for sediment contamination) should be closely monitored so that testing may comply with the state of the art. Compliance with the state of the art in soil testing will put the testing party in the best possible legal position. However, it should be noted that in today's litigious society, there is no guarantee that the Corps won't be named as a defendant in a lawsuit over this issue nor that compliance with Tatem's recommendations will insulate a party from liability for inadequate testing, since there is no sure way to predict how broadly or narrowly a court may construe the Corps' standard of care. Even so, compliance with the state of the art in soil testing will place the testing party in the best possible legal position.

The soil testing question is further complicated by the fact that these two functions (the disposal of dredged material and the operation of an

¹¹Tatem 7.

¹²Tatem A4.

¹³Telephone call, Dr. Henry Tatem, Environmental Lab, WES, 8-14-91. The adoption of contamination standards is also a controversial issue. Id.

aquaculture facility) do not normally take place on the same piece of property. However, in areas like Galveston Bay, TX, dredging operations have coexisted for years in proximity with shrimping, so some precedent exists for the coexistence of the dredging and aquaculture. Even so, to help determine what tests might be required when dredged material disposal and aquaculture coincide in a CAAP, the following questions can be asked: First, what types of soil tests are usually done for each of these functions when they take place on different parcels of land? Second, what additional testing might be required when the two functions take place on a single parcel of land?

When an aquaculturist intends to site an aquaculture operation on a given parcel of land, what types of soil testings or other investigations does he engage in to assure himself that the site is, in fact, chemically suitable for aquaculture? One primary concern will be whether the soil has been contaminated by pesticide use on or near it. The land-use history of the parcel of real estate would be examined to determine "whether row crops were ever grown on or adjacent to the site being considered."¹⁴ If that investigation gives the aquaculturist a reason to believe that pesticides were used on that property, then testing should be conducted to be sure that pesticide residues in the soil do not exceed acceptable limits.¹⁵ Thus, the aquaculturist in the non-DMCA situation will be accustomed to conducting a background investigation into the land-use history of the property and adjacent property, and to conducting a soil test in the event the soil may have been contaminated with pesticide residues.

Likewise, what soil testing does the Corps engage in when it is siting a new dredged material containment area? The Corps usually does very little in the way of sediment testing when disposing of dredged material in upland sites when no aquaculture is involved. Although practices may have varied District by District, in the absence of a research or experimental use, little or no testing has customarily taken place where no other surface uses of the DMCA have been contemplated. However, Districts have been performing more and more

¹⁴Wellborn, Thomas E. 1988 (Nov). "Site Selection of Levee-Type Fish Production Ponds." Southern Regional Aquaculture Center Pub. This site selection brochure is produced by the USDA and distributed by the Aquaculture Information Center in Beltsville, MD. The possibility of soil contamination appears last in a list of concerns for the aquaculture operator.

¹⁵Wellborn at 1-2.

tests, and increasingly sophisticated tests in recent years, and have come to accept increased testing costs as a cost of doing business.¹⁶

The next question is what difference will it make, in terms of these testing requirements, when the aquaculture function takes place on the same site as the dredged material disposal function? The first and most obvious difference that the coincidence of the two functions makes is this: because the dredged material disposal function may be a source of contamination to the aquaculture function, care with soil testing becomes more crucial and the stakes higher, because food for human consumption is involved. Second, the Corps may well find itself actively promoting a given piece of property as potentially suitable for containment area aquaculture, thereby actively promoting its use for production of food for human consumption.¹⁷ Given these representations, what must the Corps do to assure that the two functions co-exist peaceably? The Corps may well be responsible in this context for assuring that the one function (the disposal of dredged material) does not contaminate the other (the production of aquatic organisms for human consumption).

Using the checklists in the "Site Selection" report should address the need to assess in a comprehensive way the compatibility of the aquaculture function with the dredged material disposal function. For example, one ground for elimination of a potential CAAP site in the checklist in Part B, is the existence of "[n]on-compatible activities," such as crop dusting, oil and gas extraction, or industrial use on a site adjacent to a CAAF. In conjunction with the steps outlined in Site Selection, the recommendations in Tatem's report should also be followed. Finally, early WES involvement should enable sediment testing to comply with the most up-to-date technology.

Once the nature of the soil testing obligations has been determined for screening a potential CAAF site, which party or parties will be responsible for soil and chemical testing must be determined. Although the ultimate allocation of responsibilities will, to some degree, be the product of site-specific circumstances, one can speculate about the most important aspect of

¹⁶Telephone call, Dr. Henry Tatem, Environmental Lab, WES, 8-14-91. See, e.g., O'Connor, Joseph. 1989. "Evaluation of Disposal Alternatives in the New York-New Jersey Metropolitan Region." Managing Dredged Material. U.S. Army Corps of Engineers, New York District.

¹⁷The issue of misrepresentation is discussed in more detail in Subpart B of this chapter.

this question: Who will pay for the tests? Although, as discussed above, an aquaculturist is accustomed to spending at least some time and money investigating the chemical suitability of a potential aquaculture site, the Corps is not accustomed to spending very much, if any, money on chemical suitability unless an experimental or pilot program is underway as a part of its ongoing study of the long-term effects of dredging.¹⁸ Thus, neither the Corps nor the aquaculturist customarily spends a great deal of money on soil testing when the two functions are performed on separate sites. So when these two functions do take place on the same site, one or both of them have to agree to spend the money necessary to screen the site: one or both parties have to be sure that the one function (the disposal of dredged material) does not contaminate the other function (production of aquatic organisms for human consumption).

Unfortunately, sediment tests can be expensive, and some party will have to pay for tests that will sufficiently screen out unsuitable sites for a CAAF. According to Tatem, the approximate cost of conducting the tests that are "highly recommended" is \$11,400. That amount of money would pay for the following chemical parameters or tests: particle size, miscellaneous parameters, and mysid bioassay. Moreover, some tests labeled "optional" in Tatem's report which may turn out to be necessary may add as much as \$21,750 to the bill for sediment testing.¹⁹ Finally, other tests or analyses may become available through WES or local county agents, as technology develops.

During negotiations, some party or parties will have to take on the responsibility of seeing that the site is tested sufficiently to determine its chemical suitability for aquaculture. It is difficult to envision economic circumstances in which it will be possible for the Corps to successfully negotiate away this responsibility, given the fact that the Corps is actively

¹⁸At a session on Toxics and Pesticides at the recent Gulf of Mexico Symposium held in New Orleans, LA., December 2-5, 1990, Tom Wright with the Corps of Engineers described the research that has taken place at WES on contaminated sediments. Starting with the Dredged Material Research Program in 1973, moving to the Field Verification Program in 1982, and currently in the Long-Term Effects of Dredging Operations Program (LEDO), the Corps has been exploring a number of technical issues related to the environmental impacts of dredged material disposal in upland, wetland, and open-water facilities.

¹⁹Testing for certain metals costs approximately \$3,750, testing for certain organics, such as PCBs, costs approximately \$8,000, and aquaculture animal tests and bioaccumulation assessment can cost between \$6,000 and \$10,000. Tatem at p. 27 & Table 7.

promoting the site as appropriate for aquaculture. From a negotiation standpoint, the aquaculturist who is considering becoming involved in a CAAF may be unable to lease or purchase outright other sites where the Corps is not involved. Even so, in order to make the proposition economically attractive to the aquaculturist, the Corps will probably not have much success with allocating the cost of this particular risk to the aquaculturist, since the aquaculturist would not otherwise have to spend that kind of money to be sure the site was safe. Many states now have county agents and aquaculture agents who may be available to review test results and otherwise assist in the site selection process. Do not forget that in some circumstances where the CAAF may be needed for emergency dredging, the aquaculturist is already assuming a risk (over and above the risks normally assumed when entering into an aquaculture venture where no DMCA is involved) of having his operations disrupted by a disposal event, or the risk of having the disposal event otherwise jeopardize the aquaculture operation between production cycles.

Assuming, for purposes of this discussion, that the Corps is the party that undertakes the testing, what will the standard of care be? Again, although the question has an uncertain answer, this much may be safely assumed: that the Corps will be held to a higher standard of care when its dredged material is to be involved in the production of food for human consumption than when no aquaculture is involved. The Corps, after all, will be actively promoting the aquaculture surface use; therefore, the Corps will at minimum be charged with knowledge of the use of the site for the production of food for human consumption. Furthermore, in terms of comparison with the testing normally done to site an aquaculture facility, the Corps will be held to a higher standard of care when the aquaculture function is complicated by the periodic disposal of dredged material than when the aquaculture function takes place on a site where dredged material is nowhere to be found, and there are no periodic disturbances of the site.

In conclusion, Tatem's recommendations should be followed in terms of what chemical and sediment tests to perform. In addition, the steps in the "Site Selection" technical report should be complied with as well. Finally, other tests may be required in order that site selection may comply with the state of the art in testing technology, so that the testing party may place itself in the best possible position. Even so, given the legal uncertainties described above and the difficulty in general predicting the outcome of litigation, there is no guarantee that compliance with these recommendations will

insulate the Corps from liability, should the aquaculturist suffer a crop loss due to chemical unsuitability during the CAAF operation.

2. Institutional and Economic Pressures

Certain institutional and economic pressures complicate matters further and affect, as a practical matter, how risks will ultimately be allocated among the parties to a CAAF. The first and most comprehensive constraint arises in those geographic areas where the CAAF has been envisioned as being the most helpful to the Corps in assuring that it will have adequate disposal space in critical areas over the long term. The problem is that the areas where the Corps has the most difficulty securing disposal space (that is, where the CAAF may be the most helpful) are the very same areas where the chances of sediments being polluted are the greatest (that is, where the site may be the least suitable for aquaculture).

Coastal areas face increased competition for land use from a variety of different interests. Population in coastal areas rises, ship traffic increases, and limited resources are strained more and more. As a practical matter, this translates into greater pollution problems and an increased likelihood of oil spills and other forms of industrial pollution that are threatening to aquatic organisms. The fundamental, institutional tension that results means that the Corps will have more trouble securing land for disposal purposes, when competition for potential containment area sites is fiercest. While a CAAF is an attempt to make the Corps more competitive, vis-a-vis other land uses, it may also prove to be less suitable in terms of cost in the very places it was supposed to help the most. The containment area aquaculture program can only work on sites that accomplish both functions--helping the Corps compete for disposal space and giving the aquaculturist a safe place to grow his crop.

Another economic tension or pressure that is created by the attempt to produce food on DMCA's is also related to the need to conduct tests to assure the suitability of the sediment for the production of aquatic organisms. If the Corps intends to actively market a potential site as suitable for aquaculture, it must have some reasonable basis for such a claim. Tatem identifies a difficulty in this regard: "it is virtually impossible, without a substantial economic commitment, to test DMCA sediments for all possible

contaminants."²⁰ In order to avoid the charge of affirmative misrepresentation (discussed in more detail in the next subchapter), Corps personnel should be careful how they present and discuss potential CAAF sites with aquaculturists.

B. Misrepresentation or Fraud

Hypothetical ways the issue may come up: If the Corps made affirmative representations to the aquaculturist that the proposed CAAF site was "chemically suitable for aquaculture," then, after a significant financial investment, the site turned out to be chemically unsuitable, the aquaculturist might sue to recover his investment. He may argue that he relied on the Corps' misrepresentation when he decided to lease the property and to attempt an aquaculture operation on the DMCA, or that the Corps otherwise induced him to invest by misrepresenting important facts about the project. The aquaculturist might make the same argument about any affirmative assurances the Corps may have made about the potential profitability of containment area aquaculture, or whether the Corps' involvement in the CAAF would facilitate the permit process with state or federal agencies.

Discussion: The aquaculturists's argument would be that the Corps misrepresented the potential benefits of participation in a CAAF project. The legal theory of common law misrepresentation varies from state to state. Moreover, over time the word "misrepresentation" has been loosely applied to a multitude of "sins" in an array of factual contexts, creating confusion about precisely what the term refers to. Even so, it is possible to generalize about the elements that the aquaculturist would usually have to show in order to prove a claim of common law misrepresentation or fraud in the negligence context. According to the eminent negligence scholar Prosser,²¹ to establish a claim under this theory, one would have to prove the following elements:

²⁰Tatem 20.

²¹Prosser was the leading tort law scholar. His treatise on tort law now appears as: Keeton, W.P. et al. Prosser & Keeton on The Law of Torts (5th ed. 1984 & Supp. 1989). This treatise will hereafter be cited as "Prosser & Keeton."

1. that the Corps made a false representation, usually of material fact;²²
2. that the Corps knew or believed that the representation was false, or lacked a sufficient basis of information to make that representation;²³
3. that the Corps intended to induce the aquaculturist to act or refrain from acting in reliance upon the representation;
4. that the aquaculturist justifiably relied upon the representation in acting or refraining from acting; and
5. that the aquaculturist was damaged²⁴ as a result of such reliance.²⁵

²²The Restatement (Second) of Torts is similar, but includes misrepresentations of law as well as fact. Restatement (2d) of Torts Sec. 525 provides: "One who fraudulently makes a misrepresentation of fact, opinion, intention or law for the purpose of inducing another to act or to refrain from action in reliance upon it, is subject to liability to the other in deceit for the pecuniary loss caused to him by his justifiable reliance upon the misrepresentation." Some states go beyond factual representations to include certain "opinions" as to existing facts. Fidelity & Cas. Co. of N.Y. v. J.D. Pittman Tractor Co., 13 So.2d 669 (Ala. 1943). Some states also include "silence" about a material fact in certain situations where there may be a duty to disclose. See e.g., La.C.C. art. 1958 (West 1952 & Supp. 1990).

²³Some states, like Maryland, require knowledge that the representation is false. Suburban Properties Management Inc. v. Johnson, 204 A.2d 326 (Md. 1964); Brashears v. Collison, 115 A.2d 289 (Md. 1955). Other states, like South Carolina, permit recovery for negligence (that is, failure to adequately investigate the factual basis of its statement). McKay v. Anheuser-Busch, Inc., 19 S.E.2d 457 (S.C. 1942)(ignorance or negligence will support a fraud action).

²⁴The types of damages available vary from state to state. For example, Louisiana permits the remedy of "redhibition" with respect to misrepresentations and contracts. Redhibition is much like the remedy of rescission of a contract in the common law. Davis v. Davis, 353 So.2d 1060 (La.App. 1977). Some states permit the recovery of punitive damages where the fraud was "malicious, oppressive, or gross and the statements were made with knowledge of their falsity." Winn-Dixie Montgomery, Inc. v. Henderson, 371 So.2d 899 (Ala. 1979).

²⁵Prosser & Keeton Section 105 at p. 728. The test varies slightly from state to state. Cases from the six model states include: Patel v. Hanna, 525 So.2d 1359 (Ala. 1988)(sale of motel); Nagashima v. Busck, 541 So.2d 783 (Fla. 1989); Gabriel v. Jeansonne, 162 So.2d 798 (La.App. 1964); Suburban Properties Management, Inc. v. Johnson, 204 A.2d 326 (Md. 1964); Thomas & Howard Co. v. Fowler, 82 S.E.2d 454 (S.C. 1954); and Wilson v. Jones, 45 S.W.2d 572 (Tex. 1932).

Misrepresentation law may be judicially created (in cases) or legislatively created (in statutes). Alabama is one state that incorporates the elements of misrepresentation into a statute, which reads as follows:

Misrepresentations of material fact made willfully to deceive, or recklessly without knowledge, and acted upon by the opposite party, or if made by mistake and innocently acted on by the opposing party, constitute legal fraud.²⁶

From the above text, it appears that the most troublesome points would include the Corps' basis for whatever representations it makes about the suitability of a given site. It would also depend on which party or parties were responsible for conducting and paying for what tests. Corps personnel would be prudent to refer to sites under consideration for containment area aquaculture as "potential" sites or "proposed" sites, until the testing referred to in the previous section is completed. In other words, Corps personnel must be careful not to prematurely deem a site as "suitable for aquaculture" before sufficient testing has taken place to give it a "sufficient basis" for such a statement. During negotiations with other potential participants to a CAAF, the Corps may be able to simply furnish all available and up-to-date data it has on a proposed site to the other parties without representing its suitability one way or another; however, that may not be possible, given how aggressively the Corps may have to market the idea in some geographic areas where resistance to the program is strong. If the idea behind the CAAF is to help compete for coastal land use by essentially inducing the participation of an aquaculturist, it is difficult to see how the Corps can avoid bearing many of the testing costs, and assuming the responsibility for screening proposed sites.

The issue of misrepresentation will most likely arise on the subject of the chemical suitability of a particular DMCA site for aquaculture. There may be other legal or factual matters that involve representations which are less likely to come up. For example, the aquaculturist may argue that statements about the potential profitability of the aquaculture venture or statements about whether the Corps' involvement will make it easier for the aquaculturist to secure certain environmental permits constitute misrepresentations as well. However, the argument has less force here where the statements are more speculative and appear to constitute, at least in part, predictions about the future. In general, "prediction[s] as to events to occur in the future" are

²⁶Ala.Code Ann. Sec. 6-5-101.

"regarded as [] statement[s] of opinion only, on which the adverse party has no right to rely."²⁷ Also, with respect to any statements the Corps makes about profitability,²⁸ an aquaculturist may not be justified in relying on such representations by the Corps, particularly where the aquaculturist has significantly more experience in the aquaculture business. Finally, speculation on the permit process gets closer into the realm of representations about the law, which some states do not include in their doctrines of misrepresentation.

C. Waste by the Tenant or Easement-Holder

Hypothetical ways the issue may come up: The argument that the tenant is guilty of "waste" may arise when the tenant does something or doesn't do something he is obligated to do, and thereby reduces the value of the property for the owner, who will eventually get the property back. The doctrine of "waste" is a legal theory used by the owner of the property to argue that the tenant or easement holder is letting the property value decline. The hypothetical facts that may give rise to a claim like this include:

- where the aquaculturist abandons the site or somehow fails to fulfill its maintenance obligations and the property is devalued in some significant way;

- where the Corps fails to perform its maintenance functions, to the extent it undertook them in the agreements setting up the CAAF venture. (Here, as with other liability issues, the precise relationships of the parties as contained in the legal documents setting up the venture will dictate the potential liabilities that may attach to each.)

Discussion: The general idea is that the tenant is legally entitled to possession of a particular piece of property for a limited period of time, and while the property is in the tenant's custody and control, the tenant is under a duty not to destroy, misuse, alter, or neglect that property. The person to whom this duty is owed is the property owner, who gets the property back after

²⁷Prosser sec. 109 at 762.

²⁸ South Carolina has a special statute that applies to the representations of a "business opportunity seller," which might apply by analogy to these facts. Such a seller "shall not represent the business's income or earning potential unless he possesses documented data to substantiate the claim. S.C.Code Ann. sec. 39-57-60 (Law Co-op. 1976).

the lease expires.²⁹ The doctrine of "waste" may furnish the owner of the site with a cause of action under which he sues the tenant in order either (1) to stop the activity that he believes constitutes waste (by way of an injunction), or (2) to get damages to compensate him after the fact for the reduced value of the property or the cost of repairs.

Here, as with other legal theories of liability, the specific legal definition of waste varies from state to state. However, the general idea is the same: a person rightfully in possession of the property but who does not have full title to the property is under a duty to the property's owner not to unreasonably or improperly use or abuse the property.³⁰ In some states, waste is defined by statute³¹; in other states, the courts, rather than the legislature, have fashioned a definition of waste.³² For example, the

²⁹78 Am.Jur.2d Waste Section 1 at pp. 395-6 (1975 & Supp. 1991).

³⁰Id.

³¹Louisiana defines several categories of waste by statute. La.Civ.Code Ann. art. 2722 (West Supp. 1990) makes the lessee "liable for the waste committed by persons of his family" or by sublessees, and articles 2719 and 2720 require a tenant to return the premises in the same state or condition he received it in, excepting ordinary wear and tear and "unavoidable accidents." Similarly, article 623 of the Louisiana Civil Code (West 1990) deals with a "usufruct" (that is, the entitlement to the enjoyment and use of a thing) and provides that the "naked owner" has the right to terminate a usufruct "if the usufructuary commits waste, alienates things without authority, neglects to make ordinary repairs, or abuses his enjoyment in any other manner." Article 583 provides that the tenant is under no obligation to restore property that has been destroyed "through accident or because of age." Similarly, Md.[Real Prop.] Code Ann. sec. 14-102 (1988) provides that a tenant or other lawful possessor who "commits or permits waste is liable for actual damages suffered by the property." Furthermore, if the activity alleged to constitute waste persists after an injunction has been issued ordering the tenant to stop, the court has the power to fine the defendant an amount "double the damage ascertained."

³²Compton v. Cook, 66 So.2d 176, 180 (Ala. 1953)(focuses on "whether lasting damage has been done to the inheritance, or its value depreciated"); see also Intl. Tool & Eng'g. Co., Inc. v. Sullivan, 389 So.2d 138, 140 (Ala. Civ. App. 1980)(lessee who abandons property before the expiration of the lease term has a duty to leave the building in "the same state of repair as it should have been had the lease expired by the lapse of time").

See Stephenson v. Nat'l. Bank of Winter Haven, 109 So. 424, 425 (Fla. 1926)(definition quoted in text, *infra*); see also Chapman v. Chapman, 526 So.2d 131, 135 (Fla.App. 1988)(failure to pay property taxes may constitute waste).

Wingard v. Lee, 336 S.E.2d 498, 500 (S.C.App. 1985)(focuses on "acts or omissions which tend to the lasting destruction, deterioration, or material

Florida supreme court gives the following definition of waste, which is exhaustive and detailed:

the destruction or material alteration of any part of a tenement by a tenant for life or years to the injury of the person entitled to the inheritance,...an unlawful act or omission of duty on the part of the tenant which results in permanent injury to the inheritance,...any spoil or destruction done or permitted with respect to lands, houses, gardens, trees, or other corporeal hereditaments by the tenant thereof, to the prejudice of him in reversion or remainder, or, in other words, to the lasting injury of the inheritance.³³

Generally, courts distinguish between two categories of waste. The first, known as voluntary or commissive waste, entails some deliberate or voluntary destructive act on the part of the tenant, such as pulling down a building or removing fixtures from the property. The second category of waste, known as permissive waste, focuses on the tenant's failure to act, rather than his voluntary action. Permissive waste is the tenant's failure to exercise ordinary care to preserve and protect the estate, such as allowing structures to rot. In other words, permissive waste entails some omission or neglect on the part of the tenant.³⁴ Some states go further than simply distinguishing between the two kinds of waste--they treat voluntary waste as a more serious offense and accordingly require by statute that the persons guilty of voluntary waste pay double³⁵ or triple³⁶ damages.³⁷

An aquaculturist, as the lessee of the site, may be subject to this type of liability, in hypothetical situations like the ones described above, particularly with respect to the maintenance of the levees and the drain/harvest structures which had been tailored by the Corps to meet the special needs of

alteration of the freehold and the improvements thereto or which would diminish the permanent value of the inheritance").

Gulf Oil Corp. v. Horton, 143 S.W.2d 132, 134 (Tex. Civ. App. 1940)(waste "means generally the destruction of houses, trees, or other corporeal hereditaments on the premises by a tenant who is rightfully in possession but have no absolute or unqualified title to the property"); see also Oldham v. Keaton, 597 S.W.2d 938, 942 (Tex. Civ. App. 1980).

³³Stephenson v. Nat'l. Bank of Winter Haven, 109 So. 424, 425 (So. 1926).

³⁴78 Am.Jur.2d Waste § 3 at 397.

³⁵Wis. Stat. Ann. sec. 844.19 (West 1977).

³⁶Wash. Rev. Code Ann. sec. 64.12.020 (1966 & Supp. 1990).

³⁷See generally 78 Am.Jur.2d Waste § 35 at 421-23.

the aquaculturist. Thus, were the tenant in possession to abandon the premises and leave the property unprotected or uninsured (in violation of an obligation to do so), the landowner may have a cause of action against that tenant for waste. Furthermore, in states with waste statutes containing treble or double damage provisions, the tenant may find himself liable for triple or double damages.³⁸

It is less clear whether the Corps would be subject to liability for waste, particularly in states where the cases or statutes defining waste speak specifically of tenants only (and not easement holders). In other states where the language does not speak in terms of tenants, it could be argued that the holder of an easement for the disposal of dredged material is certainly in possession under "some estate in the premises less than the absolute ownership thereof in fee simple."³⁹ Therefore, liability for waste may attach, in the event the Corps failed to fulfill its maintenance obligations and/or allowed the site to deteriorate significantly. On the other hand, the Corps may argue that its possessory estate is so short and so insignificant, relative to the tenancy held by the aquaculturist, that it would be inequitable to subject the Corps to liability for waste. It seems unlikely that, given the limited nature of its possessory interest, the Corps will engage in the kind of "substantial interference" that the waste doctrine addresses.

In terms of remedies, the plaintiff may seek an injunction to prevent commission of waste in certain cases.⁴⁰ This may occur where damages are an imperfect remedy, or "where the nature of the injury is such that a preventive remedy is indispensable and should be permanent."⁴¹ However, in general, if money damages will adequately and fully compensate the plaintiff, then damages may be the remedy, the precise measure of which will be determined under state law.⁴²

³⁸Id.

³⁹78 Am.Jur.2d Waste § 10 at 401.

⁴⁰See Redwood Hotel Inc. v. Korbien, 73 A.2d 468, 471 (Md. 1950)(sufficiency of allegations of waste to justify issuance of an injunction).

⁴¹Id. at § 30 at 418.

⁴²Id. The types of remedies and the measure of damages vary among the model states. For example, ALABAMA has awarded the cost of repairs, rather than the diminution in value, as the measure of damages for waste where the

D. Private Nuisance

Hypothetical ways the issue may come up: The issue of private nuisance⁴³ may come up where the owner of property adjacent to or near the CAAF complains to the aquaculturist, the Corps and/or (perhaps) the landowner that some activity constitutes a nuisance. For example, the neighboring landowner may complain about the following:

- flooding
- the destruction of crops (for example, the aquaculturist let chemicals wash over onto adjoining property)
- the pollution of a stream they both take water from, or
- the pollution of the underground water supply.⁴⁴

General principles of liability: The adjoining landowner may sue the aquaculturist (and in some circumstances the Corps and/or the landowner as well) seeking damages for private nuisance. His argument will be that the conduct of the aquaculturist interfered with his rights to use and enjoy his own land. However, the landowner will not be able to hold the aquaculturist liable for damages unless the interference complained of is "substantial and unreasonable, and such as would be offensive or inconvenient to the normal

plaintiff alleged that defendant returned the leased premises to him "in shambles." Collins v. Windsor, 505 So.2d 1205, 1206 (Ala. 1987); TEXAS takes the opposite position, concluding that the measure of damages for waste is "the difference in market value immediately before and after [the] action" complained of. Hamman v. Ritchie, 547 S.W.2d 698, 705 (Tex. Civ. App. 1977).

⁴³The word "nuisance" is used in a variety of legal contexts. This segment of Chapter 4 is concerned with private nuisance, as opposed to public nuisance or attractive nuisance. A brief discussion of public nuisance may be found, for example, in Rychlak, Ronald J. 1989. "Common-Law Remedies for Environmental Wrongs: The Role of Private Nuisance." 59 Miss. Law Journal 657-698. The attractive nuisance doctrine concerns dangers that are peculiarly attractive to children. The doctrine creates special duties for property owners or possessors to protect the children who might be attracted to the site. Black's Law Dictionary at 119 (5th ed. 1979). Because most CAAF sites will be located in undeveloped areas, often near industrial areas, it is unlikely that the attractive nuisance issue will come up. Complete discussion of the application of the attractive nuisance doctrine is therefore not included in this Technical Report.

⁴⁴Prosser & Keeton § 87 at p. 619.

person."⁴⁵ In other words, the interference has to constitute something more than "the petty annoyances and disturbances of everyday life."⁴⁶

The actual legal test for nuisance liability varies from state to state. However, in general, in order to recover damages under the "private nuisance" theory of liability, the landowner who sues must prove the following four elements:

(1) The defendant acted with the intent of interfering with the use and enjoyment of the land by those entitled to that use;

(2) There was some interference with the use and enjoyment of the land of the kind intended, although the amount and extent of that interference may not have been anticipated or intended;

(3) The interference that resulted and the physical harm, if any, from that interference proved to be substantial....[This] requirement is to satisfy the need for a showing that the land is reduced in value because of the defendant's conduct;

(4) The interference that came about under such circumstances was of such a nature, duration or amount as to constitute unreasonable interference with the use and enjoyment of the land. This...means that the interference [rather than the conduct] must be unreasonable....⁴⁷

⁴⁵Id. § 87, at 620.

⁴⁶Id. § 88, at 626.

⁴⁷Id. § 87, at 622.

The six model states tend to follow the above rules.⁴⁸ This nuisance theory is one of several theories of liability that courts have used to hold polluters liable.⁴⁹ In cases where polluters have allowed "harmful liquids to escape and pollute soil and water, both underground and surface," courts have used nuisance, negligence, strict liability, trespass, and some theory concerning water or riparian rights to pure water in order to hold the polluter legally responsible.⁵⁰ These theories overlap somewhat, but the nuisance discussion gives a general idea of how these arguments run: that the release of contaminants into a common water supply may result in civil liability for the person or entity who let those materials escape.

A landowner who succeeds in this argument may secure two different kinds of relief. First, he may be entitled to equitable relief (that is, an injunction preventing the aquaculturist from engaging further in the offensive activity) where the damage is ongoing. Second, the landowner may be entitled to damages to compensate him for losses directly attributable to the offensive conduct. The precise relief available depends on the law of the state where the CAAF is located.

⁴⁸ALABAMA: Tipler v. McKenzie Tank Lines, 547 So.2d 438 (Ala. 1989); Ala. Code § 6-5-120 (1977). FLORIDA: Town of Surfside v. County Line Land Company, 340 So.2d 1287 (Fla.App. 1977); see also Fla. Stat. Ann. § 823 (West Supp. 1990) (public nuisance). LOUISIANA: Louisiana distinguishes between "nuisance per se and nuisance per accidens or in fact." The former is a "nuisance at all times and under any circumstances, regardless of location or surroundings." The latter is a nuisance because of circumstances or surroundings. Frederick v. Brown Funeral Homes, Inc., 62 So.2d 100, 101, 222 La. 57 (1952); see, generally, City of New Orleans v. Lenfant, 52 So. 575, 126 La. 455 (1910); see also La. Civ. Code Ann. arts. 667, 668, and 669 (West 1980 & Supp. 1990). MARYLAND: Maryland courts focus primarily on the unreasonableness of the interference with plaintiff's use and enjoyment of the property. Exxon Corp. v. Yarema, 516 A.2d 990, 1001-05, 69 Md. App. 124 (1986); see also Md. [Cts & Jud. Proc.] Code Ann. § 5-308 (1989) (agricultural nuisance). SOUTH CAROLINA: Home Sales, Inc. v. City of North Myrtle Beach, 382 S.E.2d 463, 469, 299 S.C. 70 (1989); Lever v. Wilder Mobile Homes, Inc., 322 S.E.2d 692, 693-94, 283 S.C. 452 (1984). TEXAS: Freedman v. Briarcroft Property Owners, Inc., 776 S.W.2d 212, 216 (Tex.App. 1987); Bily v. Omni Equities, Inc., 731 S.W.2d 606, 611-12 (Tex.App. 1987); see also Tex. [Civ. Prac. & Rem.] Code Ann. § 65.011 (Vernon 1986 & Supp. 1990) (availability of injunctive relief); see also Restatement (Second) of Torts § 821D (definition of private nuisance).

⁴⁹For a discussion of legal theories that courts have employed to hold polluters liable, see, generally, Rychlak, Ronald J., "Common-Law Remedies for Environmental Wrongs," supra n. 43.

⁵⁰Id. § 87, at 624.

E. Contractual Issues

Hypothetical ways the issue may come up: Aquaculturists will have in place service contracts on their major pieces of equipment, and may engage contractors to harvest the crop. In addition, there will be various other contracts in place in a CAAF, such as land leases, easements, equipment leases, and operating agreements. If a breach occurs which leaves a party to the contract in some kind of a lurch, he may sue for specific performance--that is, a ruling that forces the other party to carry out its part of the contract--or for monetary damages for breach of contract, if losses occur as a result of that party's unjustified failure to perform the contract.

Discussion: In the preceding sections, several types of tort or negligence liability have been discussed. If the person suing and the target of that suit are both parties to a contract, there may be contractual liability as well as negligence liability. Contractual liability may arise when the parties undertake obligations or make promises to do specific things in the future, then unjustifiably fail to do so, and that failure causes a compensable loss.⁵¹ Thus in some situations, an injured party may file both a tort claim and a contract claim about the same transaction or occurrence.⁵²

The general principles of contract law vary from state to state. Contract law is often more complex than the negligence issues discussed previously, but the elements of proof are roughly parallel to those in a negligence claim. An injured party must prove the existence of a valid contract between the parties; the other party's failure to fulfill one of the important duties undertaken in that contract;⁵³ a significant causal link which connects the failure with the damage the injured party complains about; and the existence of damages that the law views as compensable.

In general, at least three interests are involved in contractual claims, and they all center around the contract itself. The first interest courts protect is the "expectation" interest--the legal system protects the expectations [which have been induced by the making of a promise] by attempting to

⁵¹See, generally, Simpson, Laurence P. Law of Contracts (2d ed. 1965), ch. 20.

⁵²See Prosser & Keeton sec. 92 at 655.

⁵³The duty that is breached must be "of such importance that without it the promisee would not obtain substantially what he bargained for." Murray, John Edward, Jr. Murray on Contracts (3d ed. 1990) at p. 671.

place the injured promisee in the position he would have been in had the promise been performed."⁵⁴ The second interest courts attempt to protect is the "reliance" interest--parties to whom promises are made should have the right to rely on those promises when they change their positions in reliance on that promise to their own detriment.⁵⁵ The third interest being protected is the restitution interest. Parties who breach contracts will not be permitted to reap benefits from doing so--the law requires them "to surrender the unjust enrichment (gain) and to restore the injured promisee to his position prior to the making of the promise."⁵⁶

It is difficult to generalize further about how a contractual claim might turn out, because any contractual claims that arise will depend on the language of the particular contract on which the person sues. In addition to the panoply of variations in a given commercial contract, and the variations in contractual interpretation that exist from state to state, the remedies for contractual claims vary as well according to the contract itself and applicable state law. For example, in some circumstances, a party may seek to rescind or set aside the contract. In other circumstances, a party may seek damages to compensate that person for the breach by the other party. Within the confines of this subchapter, more detail cannot be set forth; therefore, interested persons should discuss issues of contractual liability with a qualified attorney when negotiating the terms of the contracts in a containment area aquaculture program or when considering filing suit for breach of contract.

F. "Joint Venture" Vicarious Liability

Hypothetical ways the issue may come up: The general idea here is that a person injured by the negligence of the aquaculturist may sue the Corps as well as the aquaculturist, even if the Corps is nowhere near the site at the time of the injury. For example, say a supplier of feed or some other product or service gets hurt on the CAAF during a delivery. The injured party would argue that the Corps and the aquaculturist are "joint venturers," so that the Corps may be held legally liable for any negligence on the part of the

⁵⁴Murray at p. 671.

⁵⁵Id.

⁵⁶Id.

aquaculturist, whether the Corps was present at the time of the accident or not. For example, if a truck driver for a feed or supply company were to slip and fall on the premises while on a delivery to the site during a time when the aquaculturist was in custody and control of the site, he may file suit against the Corps as well as the aquaculturist, even though the Corps was not present when the accident happened.

General principles of liability: There is one practical reason the issue may come up (although the argument itself may not be that strong)--the Corps is perceived as a "deep pocket." In other words, if an injured person decides to sue for damages he or she will very likely sue the Corps in addition to the aquaculturist, whether the Corps was involved or even present. The injured party's argument is that the Corps should be held liable for acts committed by its co-joint venturer.

The joint venture theory of liability is a category of vicarious responsibility (i.e. holding someone else liable for an act committed by another). The idea is that a joint venture is a kind of temporary partnership where it makes sense to treat the participants like partners would be treated. On the one hand, a partnership constitutes "a more or less permanent business arrangement, creating a mutual agency between the partners for the purpose of carrying on some general business, so that the acts of one are to be charged against another."⁵⁷ On the other hand, a joint venture lasts for a shorter period of time and has a more limited purpose than a partnership. It is generally considered "an undertaking to carry out a small number of acts or objectives" in which each member of the joint venture has "an equal voice in directing the conduct of the enterprise."⁵⁸

Although the precise legal test to determine whether a joint venture exists varies from state to state, courts look at some combination of the following factors to decide:

- Did both parties contribute money, property, effort, knowledge, skill, or other assets to a common undertaking?
- Did both parties have a joint property interest in the venture's subject matter?
- Did both parties have a right of mutual control or management of the enterprise?

⁵⁷Prosser & Keeton, Section 72 at 516.

⁵⁸Id. at p. 517.

•Did both parties expect to make profits and have a right to share in the profits?

•Did both parties agree to share in any losses?

In most states, "yes" answers to the above questions would translate into a finding the Corps would be vicariously liable for the acts of the aquaculturist.⁵⁹

However, it is unlikely that most courts would find the Corps and the aquaculturist joint venturers for several reasons. First, a court would be hard pressed to find a "right of mutual control" where sole responsibility for the premises shifts from the aquaculturist to the Corps and back again without them ever sharing custody or control of the site. This is true even in emergency circumstances where provisions are made for emergency use of the disposal area in the event of natural disasters, such as a hurricane. Second, it is difficult to see how, as a practical matter, the Corps and the aquaculturist could be said to be involved in a "common undertaking," where their

⁵⁹The leading cases in the model states illustrate the slight variations that can exist from state to state. (1) ALABAMA focuses primarily on two elements of the joint venture test: the notion of "a community of interest" and the "right to joint control." Moore v. Merchants & Planters Bank, 434 So.2d 751, 753 (Ala. 1983). If these two elements are proven, it is not necessary to show every other elements listed. (2) FLORIDA requires proof of "1) community of interest in performance of a common purpose; 2) joint control or right of control; 3) joint proprietary interest; 4) right to share in profits; and 5) a duty to share in losses." Arango v. Reyka, 507 So.2d 1211, 1212 (Fla.App. 1987). (3) LOUISIANA requires that all parties consent to formation of a partnership, La.C.C. art. 2805; that they share the losses of the venture as well as the profits, La.C.C. arts. 2811, 2813, and 2814; and that each party have some proprietary interest in the business and be allowed to exercise some right of control over it. Marine Services, Inc. v. A-1 Industries, Inc., 355 So.2d 625, 628 (La.App. 4th Cir. 1978). "The sharing-of-losses provision has been held to be essential for a joint venture to be found." Id.; Shepherd v. Jay, 508 So.2d. 650, 652 (La.App. 1987). (4) MARYLAND defines a joint venture as "when 'two or more persons combine in joint business enterprise for their mutual benefit with the understanding that they are to share in profits and losses and each is to have voice in its management.'" Finch v. Hughes Aircraft Co., 469 A.2d 867, 890 (Md.App. 1984), cert. den., 469 U.S. 1215 (1985). (5) SOUTH CAROLINA courts require that "there [] be a common purpose and a community of interest in the object of the enterprise and an equal right to direct and control the conduct of each other with respect thereto." Spradley v. Houser, 247 S.C. 208, 146 S.E.2d 621, 623 (1966); accord Golson v. Thorne, 343 S.E.2d 451, 453 (S.C. 1986). (6) TEXAS requires a showing of: "1) mutual right of control; 2) community of interest; 3) agreements to share profits as principals; and 4) agreement to share losses, costs and expenses." Texas v. Houston Lighting & Power Co., 609 S.W.2d 263, 267 (Tex.Civ.App. 1980); accord Heinrich v. Wharton Co. Livestock, Inc., 557 S.W.2d 830, 833 (Tex.Civ.App. 1977).

respective goals and uses of the subject property are different. On the one hand, the Corps wants disposal space for its clean dredged material, and the aquaculture surface use is a bargaining chip or a negotiating tool to help reach that goal, or a means to that end; on the other hand, the aquaculturist is interested in producing a crop and, he hopes, in making a profit on the sale of his crop. In other words, the parties have "independent ends" rather than common ends.⁶⁰

Third, if the documents are carefully drafted, the Corps' fortunes will not be tied to the fortunes of the aquaculturist. There should be no sharing of profits of the aquaculturist, and no expectation that the Corps will share in his losses either. In fact, there may be no direct monetary flow in either direction if the recommendations in Chapter 5 are followed. The rent flows from the aquaculturist to the landlord; the easement fee runs from the Corps to the landlord; and, even if the Corps has an operating agreement with the aquaculturist, their fortunes would not be tied together whether for profits or losses. Furthermore, although both parties have a property interest in the site, it is not a "joint" property interest in the common sense of the word--they both exist simultaneously, but the Corps' easement and the aquaculturist's lease are separate and distinct interests. Having said this, it is still possible that a court may rule that the Corps was vicariously liable for the acts of the aquaculturists, since the question would be one of first impression, never before decided by courts.⁶¹

COUNTER-ARGUMENTS OR DEFENSES AVAILABLE TO THE CORPS OF ENGINEERS:

A. Introduction to Issues

Whenever the Corps of Engineers is sued in connection with its involvement with a containment area aquaculture program, the Corps will raise as many counter-arguments as possible. There are several that are likely to come up. The first two constitute arguments that the Corps is immune from suit because it is a federal governmental entity, and the doctrine of governmental immunity

⁶⁰See Prosser & Keeton at 519 & n. 22.

⁶¹After all, the "joint venture" theory of liability has been used to justify a finding that the passenger of a car has a "mutual right of control" (and therefore legal liability) with the driver! There is no way to be sure a court will not employ a similar type of "legal fiction" to warrant imposition of negligence liability upon parties in the CAAF context.

provides generally that the federal government is "not amenable to actions in tort except in cases in which they have consented to be sued."⁶² In other words, the Corps will argue that no recovery in damages or otherwise can be had from it, even if the person suing proves that the Corps was negligent.

There are two separate categories of governmental immunity and, therefore, two distinct legal theories on which the Corps may base its argument that it is immune from suit. First, the Corps will argue that the Federal Tort Claims Act (FTCA) provides immunity for any federal agency exercising a discretionary function.⁶³ Second, depending on the factual context, the Corps may argue that it was engaged in a flood control project, and the government enjoys statutory immunity for damages caused by floods or flood waters.⁶⁴

In addition to these immunity arguments, the Corps may raise a third argument. The Corps will try to enforce any "hold harmless" agreements that are included in its contracts or agreements with the aquaculturist or its easement from the landowner. In other words, in situations where parties contracting with the Corps agree in writing to "hold" the Corps "harmless" from liability for certain activities and categories of functions, the Corps will try to enforce those "hold harmless" agreements.

Finally, in addition to the defenses related to the Corps' status as a federal governmental agency, there are other defenses available to the Corps that would be available to any party-defendant, federal or not. The Corps, like any other party in a negligence action, may raise one or more of the following defenses to a tort action: (1) contributory negligence; (2) comparative fault or comparative responsibility (where adopted by statute or judicial decision); and (3) assumption of risk. Based on these theories the Corps will argue that the party who sued it should be barred from recovering damages, or have its damages reduced because it, too, bears some degree of fault in the situation.

Caveat: The discussion below provides an overview of the federal case-law on each defense--it is not intended to be a comprehensive guide to the issue of governmental immunity for the Corps of Engineers. It is impossible,

⁶²Black's Law Dictionary at 626 (5th ed. 1979).

⁶³28 U.S.C. sec. 2680.

⁶⁴33 U.S.C. sec. 702c.

given the space limitations of this Technical Report, to furnish a comprehensive guide to the cases construing these defenses. However, it is possible to identify the important immunity arguments the Corps may make, and to sketch out the general contours of the issues.

B. "Discretionary Function" Immunity Under the FTCA

The first broad category of sovereign immunity is based on an exception to the federal government's waiver of sovereign immunity with respect to tort claims (that is, its consent to be sued like any other person). The general idea is that the United States permits itself to be sued for monetary damages for loss of property when the loss is caused by the "negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment."⁶⁵ However, there is an exception to this waiver of immunity. The United States does not waive its immunity for a class of claims that arise out of "the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused."⁶⁶ Congress intended, in enacting this section, to waive immunity for "ordinary common law torts" and to retain immunity for "acts of a governmental nature or function."⁶⁷ This exception is known as the "discretionary function" exception to the FTCA.

The issue, then, is this: what sort of Corps activities and/or decisions in the CAAF context might qualify as "discretionary functions" (for which the Corps is immune from suit), and which would not (meaning the Corps is not immune)? Since the Corps has never attempted to promote aquaculture as a surface use for a containment area, the precise issues that might arise in a containment area aquaculture situation have never been considered by the federal courts. Even so, one can speculate about which activities might be considered "discretionary" by looking at federal cases in which the Corps has raised this immunity defense for activities and decisions analogous to the activities that may be involved in a CAAF.

⁶⁵28 U.S.C. §1346(b).

⁶⁶28 U.S.C. 2680(a).

⁶⁷Dalehite v. U.S., 346 U.S. 15, 27-28, 73 S.Ct. 956, 963-64, 97 L.Ed.2d 1427 (1953).

In fact, the federal case most closely analogous to the facts that may be presented in the CAAF context suggests that the Corps' immunity counter-argument may well succeed with respect to decisions made during the site selection process. The case of Dolphin Gardens, Inc. v. U.S.⁶⁸ involved the selection and approval of disposal sites for the deposit of dredged material. The court held that the "selection and approval" of the dredged material disposal site and a later decision "not to take any precautions concerning the possible escape of fumes" came "well within the scope of 'discretionary functions' as construed by the United States Supreme Court."⁶⁹ The court found that "the decision which was made as to how to carry out what was clearly a governmental responsibility was well within the boundaries of the area of discretion."⁷⁰ Thus certain decisions made during the site selection process may well fall within the scope of the "discretionary function" exception to the waiver of sovereign immunity under the FTCA.

The discretionary function issue may be best understood by examining the reasoning behind the rule. The idea behind carving out an exception to FTCA waiver of immunity has been explained by the United States Supreme Court on several occasions.⁷¹ The discretionary function exception "marks the boundary between Congress' willingness to impose tort liability upon the United States and its desire to protect certain governmental activities from exposure to suit by private individuals."⁷² The focus of the analysis in a case involving a federal agency like the Corps is on the "nature of the conduct, rather than the status of the actor" in deciding the immunity question.⁷³

The Supreme Court has developed several general principles to govern discretionary function cases. "[A] court must first consider whether the action is a matter of choice for the acting employee. This inquiry is mandated by the language of the exception; conduct cannot be discretionary unless

⁶⁸243 F.Supp. 824 (D.Conn. 1965).

⁶⁹Id. at 826.

⁷⁰Id. at 827.

⁷¹See, e.g., Dalehite v. U.S., 346 U.S. 15 (1953).

⁷²U.S. v. Varig Airlines, 467 U.S. 797, 808, 104 S.Ct. 2755, 81 L.Ed.2d 660 (1984).

⁷³Id. 467 U.S. at 813.

it involves an element of judgment or choice."⁷⁴ Thus, the exception will not apply "when a federal statute, regulation, or policy specifically prescribes a course of action for an employee to follow. In this event, the employee has no rightful option but to adhere to the directive."⁷⁵ Thus, when the Corps failed to follow its own regulations concerning enforcement of a permit, a federal appellate court held that the Corps' conduct was not within the discretionary function exception, and therefore the Corps' conduct was actionable under the FTCA.⁷⁶ If the activity in question involved a mandatory directive in a federal law, regulation, or policy, then no discretion will be involved and the Corps will not be immune under the FTCA.

Once a court has concluded that there is an element of judgment involved in the federal employee's actions, it must ask a second question. The Supreme Court requires the federal courts to consider next "whether that judgment is of the kind that the discretionary function exception was designed to shield."⁷⁷ The exception "protects only governmental actions and decisions based on considerations of public policy."⁷⁸

There are at least three types of administrative activities that the Supreme Court has expressly held come within the ambit of the discretionary function exception: (1) initiation of programs, (2) planning of programs, and (3) carrying out or executing programs so planned.⁷⁹ "Where there is room for policy judgment and decision there is discretion."⁸⁰ Thus, preconstruction planning activities and some construction activities on a CAAF appear to fall within the ambit of "discretionary function" immunity.

The dichotomy presented here between planning functions and other functions is illustrated in a recent federal case. The case of Ritter & Co. v.

⁷⁴Berkovitz by Berkovitz v. U.S., 486 U.S. 531, 108 S.Ct. 1954, 1958, 100 L.Ed.2d 531 (1988).

⁷⁵Id. at 1958-59.

⁷⁶Hurst v. U.S., 882 F.2d 306, 308 (8th Cir. 1989).

⁷⁷Berkovitz, 108 S.Ct. at 1959.

⁷⁸Id.

⁷⁹In re Ohio River Disaster Litigation, 862 F.2d 1237 (6th Cir. 1988), cert. denied sub nom. Walker Towing Corp. v. U.S., xxxU.S.xxx, 110 S.Ct. 59, (1989)(discussing Dalehite v. U.S., 346 U.S. 15 (1953)).

⁸⁰Id. at 1245 (quoting Dalehite at 35-36).

Dept. of Army, Corps of Engineers⁸¹ bears out this dichotomy in its holding that certain planning level activities by the Corps warrant a finding of immunity. Ritter was a suit by a landowner whose property was damaged by erosion due to an outlet ditch that the Corps designed and constructed, and then failed to maintain. The court found that the Corps was immune under the discretionary function exception to the FTCA for "planning level decisions" about design and construction of the outlet ditch, but was not immune for decisions made once the ditch had been constructed. The court said that those later, post-construction decisions about whether to maintain the ditch "involve[d] the most basic form of operational, ministerial conduct," and therefore were not protected by the discretionary function exception.⁸² Thus, it appears generally that the types of activities and decisions which would most likely fall within ambit of discretionary function immunity would occur in the early stages of a CAAF.

C. Statutory Immunity for Flood Control Projects

A second type of sovereign immunity is based on a different federal statute, one dealing with flood control projects, which provides that "[n]o liability of any kind shall attach to or rest upon the United States for any damage from or by floods or flood waters at any place...."⁸³ The intent of the drafters of the statute "was to keep the government entirely free from liability when floods occur, despite attempted control by federal flood control projects."⁸⁴ The statute's purpose is to provide assurance to the government of "absolute immunity for flood control projects so that Congress can safely appropriate the vast sums of money necessary...without fear of further expense should any project itself result in flooding."⁸⁵ One of the

⁸¹874 F.2d 1236 (8th Cir. 1989), .

⁸²874 F.2d at 1241. See also, Chotin Transportation, Inc. v. U.S., 819 F.2d 1342 (6th Cir.)(en banc), cert. denied, 484 U.S. 953 (1987)(Corps not immune under SIAA for the negligent operation of a lock that resulted in damage to a tug and its barges because the negligence "did not involve the executive and/or administrative decisions anchored in the social, economic, and political policies of the kind Congress intended to safeguard...").

⁸³33 U.S.C. Sec. 702c.

⁸⁴Ritter, 874 F.2d at 1239.

⁸⁵Id.

central issues that federal courts focus on with respect to this type of immunity is the scope of the terms "flood" and "flood waters," which, in turn, determines the scope of governmental immunity.

The United States Supreme Court recently addressed this question in U.S. v. James.⁸⁶ James was a suit against the Corps of Engineers brought after persons were injured or drowned when they had been swept through certain retaining structures which had been opened by the Corps in reservoirs in federal flood control projects. The Supreme Court construed the terms "flood" and "flood waters" to include "all waters contained in or carried through a federal flood control project for purposes of or related to flood control, as well as to waters that such projects cannot control."⁸⁷

Federal cases decided after James have held that some activities are sufficiently related to floods and flood control to warrant holding the government immune under Section 702c, and that others are not. For example, the Corps was held to be immune for the following flood control activities:

- the creation of a lake for flood control purposes in which plaintiff had a swimming accident⁸⁸
- the ownership and operation of a lake in which plaintiff was injured in diving accident due to alleged Corps negligence⁸⁹
- the dredging of a channel which was part of a flood control project, and the creation of a sandbar thereby on which a boy was injured⁹⁰

On the other hand, the following activities were deemed insufficiently related to floods and flood control, and therefore the Corps was held to be not immune under Section 702c for the following activities:

⁸⁶478 U.S. 597, 106 S.Ct. 3116, 92 L.Ed.2d 483 (1986).

⁸⁷Id. at 605.

⁸⁸Dewitt Bank & Trust Co. v. U.S., 878 F.2d 246 (8th Cir. 1989), cert. denied, U.S. 110 S.Ct. 1318 (1990).

⁸⁹McCarthy v. U.S., 850 F.2d 558 (9th Cir. 1988), cert. denied 489 U.S. 1052 (1989).

⁹⁰Mocklin v. Orleans Levee District, 877 F.2d 427 (5th Cir. 1989).

- the failure to warn swimmers of the presence of boaters in the area or to separate swimming and boating activity where a man was struck by a boat while snorkeling in a lake owned and under the control of the Corps⁹¹

- the flow of water from normal rainfall which caused erosion damages to plaintiff's land⁹²

- where designated swimming area in a lake owned, maintained, and controlled by the Corps was the site of plaintiff's diving accident⁹³

These cases suggest what sort of connection must exist between the Corps activity in question and a federal flood control project in order for the Corps to be immune under Section 702c.

However, as a practical matter, this particular immunity defense will rarely come up where the upland disposal of dredged material in a CAAF is involved. According to Corps estimates, between 90 and 99% of all dredged material disposed of in containment areas comes from channel maintenance or channel deepening projects rather than flood control projects.⁹⁴ Thus, although the Corps may raise this Section 702c immunity defense, it will rarely succeed, given the fact that the disposal of dredged material in a CAAF will almost certainly be related to a navigation project, rather than a flood control project.

D. Enforceability of "Hold Harmless" Agreements in Easements and Operating Agreements

As discussed in more detail in Chapter 5, a "hold harmless" provision may be included in the disposal easements between the Corps and the landowner, the operating agreement between the Corps and the aquaculturist, or other documents negotiated by the Corps. If the activity or decision which is the basis of a party's claim falls within the language of such a "hold harmless" provision, the Corps may succeed in enforcing that provision. The outcome of such an argument by the Corps will depend on the facts of the case, the

⁹¹Boyd v. U.S. ex rel. U.S. Army, Corps of Engineers, 881 F.2d 895 (10th Cir. 1989).

⁹²Ritter, 874 F.2d at 1240 (8th Cir. 1989).

⁹³Denham v. U.S., 646 F.Supp. 1021 (W.D.Tex. 1986), aff'd. 834 F.2d 518 (5th Cir. 1987).

⁹⁴ Telephone conversation, Dave Nelson, USACE, WES, Env. Lab, 11-09-90.

specific language in the agreement, as well as the state law governing easements and contracts.

A hold harmless provision contains language in which the landowner agrees to "hold" the Corps "harmless" from liability for damages for certain activities or events. Often Corps Districts include a "hold harmless" provision in their standard easement for the disposal of dredged material. For example, the Baltimore District of the Corps of Engineers includes the following provision in its standard "Spoil Disposal Easement":

The GRANTOR [that is, the landowner] does hereby expressly and fully release the United States of America [acting through the Corps of Engineers], its officers, agents, servants and contractors, from liability for any and all damages done or caused to be done and from any claim or demand whatsoever or injuries suffered by or done to the said premises by reason of the deposit of such spoil or other material, excepting damages or injuries due to the fault or negligence of the Government or its contractors.

In general, the purpose of a "hold harmless" agreement is to shift risk by contract from one party (on whom it legally rests) to another party. Thus, the latter party agrees in writing to assume "the liability inherent in a situation, thereby relieving the other party of responsibility."⁹⁵ As the language in the Baltimore District easement demonstrates, such provisions may be broad or narrow in scope to include liability for certain activities and to exclude liability for certain other activities. When the Corps' own negligence is in issue, most states require that the Corps clearly and unequivocally express its intent to indemnify for its own negligence.⁹⁶

The question presented here will be whether the "hold harmless" agreement will be enforced by a court, thus insulating the Corps from liability for acts that occur on the easement site. Unfortunately, there is very little case law on the subject of "hold harmless" agreements in easements and leases negotiated by the U.S. government. What few cases there are suggest that "hold harmless" agreements may well be enforced in easements with the Corps. In Ritter, an easement in favor of the Corps of Engineers contained a provision in which the landowner agreed "to discharge, release and hold harmless the [Corps] and its assigns from any and all damages that may be occasioned by or result from the exercise of the rights privileges and easements granted

⁹⁵Black's Law Dictionary at 658.

⁹⁶See 35 Am.Jur. Federal Tort Claims Act §15 at 396-7.

herein."⁹⁷ The court upheld the district court's ruling "that this language exempts the government from liability only for damage done within the easement area."⁹⁸ This looks good for the Corps.

However, the Ritter case is not that helpful, because the federal court there failed to explain its holding--it simply upheld the lower court's holding by relying on the general principle that the lower court gets "substantial deference" from an appellate court on matters of state law. Furthermore, assuming the issue comes up in the context of an easement for dredged material disposal, the Ritter case might be factually distinguishable because the easement in there was for a ditch and gave the government the right to "excavate, dredge, cut away and remove any and all land" within the area of the easement.

Ritter was the only case specifically construing the validity of an indemnity provision in an easement negotiated in favor of the U.S. Army Corps of Engineers. A federal court has also considered a "hold harmless" provision in a resolution adopted by a county board of supervisors, but to different effect. In Price v. U.S.,⁹⁹ the county board of supervisors agreed in writing to hold the federal government "free from damages due to the approved work" on certain restorations and repairs on the Mississippi Gulf Coast following Hurricane Betsy. The court refused to enforce the "hold harmless" agreement for damages allegedly caused by the Corps' dredging operations. The court found that the county government was "clearly in an unequal bargaining position when the resolution was adopted, as it was in a state of emergency due to the devastation of its coastline by Hurricane Betsy." The court also construed the language of the provision narrowly and held that the words "approved work" did not include the dredging operation. The court refused to "infer[] that Hancock County agreed to assume responsibility for the Corps of Engineers negligent performance and supervision of the contracted work."¹⁰⁰

⁹⁷874 F.2d at 1243.

⁹⁸Id.

⁹⁹530 F.Supp. 1010, (S.D.Miss. 1981), aff'd as modified, 726 F.2d 1057 (5th Cir. 1984).

¹⁰⁰Id. See, generally Annot., "Right of U.S. under FTCA to Recover Contribution or Indemnity from Joint Tortfeasor," 15 A.L.R.Fed. 665, 698-702 (enforceability of indemnity provisions in federal government contracts)

D. Other Defenses Available to the Corps in Tort Actions

When the Corps of Engineers is sued, like any other litigant it has certain defenses it can raise in tort actions that either bar the plaintiff's recovery in damages completely, or reduce the amount of those damages. The full range of defenses available, as well as the precise variations in statutory or judicially created requirements vary from state to state. Even so, the most frequently raised defenses--comparative or contributory negligence and assumption of risk¹⁰¹--are discussed very briefly. For a full explanation of all possible counterarguments available, an attorney should be consulted.

Both defenses focus on the conduct of the party suing. With comparative or contributory negligence, if the person suing was also negligent, and if that negligence contributed to the injuries that person is claiming, then their measure of damages may be affected, and, in some states, their right to recover at all. Contributory negligence can bar recovery completely;¹⁰² the comparative negligence doctrine is not as harsh. (Most states have by now adopted a rule of comparative fault or comparative negligence, either by statute or by judicial decision.) Comparative negligence entails looking at the conduct of the plaintiff, seeing whether plaintiff's own negligence contributed to his accident or injuries, assessing the plaintiff's proportionate share of fault, and reducing the plaintiff's damages verdict by that proportion.¹⁰³

There are two main forms that comparative fault doctrines take. First, as in Louisiana, Florida, and the majority of states, a so-called "pure" comparative negligence doctrine exists in which "a plaintiff's contributory negligence does not operate to bar his recovery, but does serve to reduce his damages in proportion to his fault."¹⁰⁴ Louisiana's comparative negligence

¹⁰¹The "two most common defenses in a negligence action are contributory negligence and assumption of risk." Prosser & Keeton §65 at 451.

¹⁰²For example, in South Carolina, the doctrine of contributory negligence bars recovery even if the plaintiff's negligence was less severe than the defendant's. S.C. Insur. Co. v. James C. Greene & Co., 348 S.E.2d 617 (S.C.App. 1986). See also Brown v. Turner, 497 So.2d 1119 (Ala. 1986); Campbell v. Montgomery Co. Bd. of Education, 533 A.2d 9 (Md.App. 1987).

¹⁰³See generally Prosser & Keaton Section 65 at pp. 468-71, 451-62.

¹⁰⁴Id. at sec. 67 at 472.

law is a creature of statute,¹⁰⁵ while Florida's comparative negligence law was fashioned by its courts.¹⁰⁶ The second type of comparative negligence doctrine is called the "modified or '50%' system, under which a plaintiff's contributory negligence does not bar recovery so long as it remains below a specified proportion of the total fault."¹⁰⁷ For example, Texas statutes provide, in the Subchapter entitled "Comparative Responsibility:"

In an action to recover damages for negligence resulting in personal injury, property damage, or death or an action for products liability grounded in negligence, a claimant may recover damages only if his percentage of responsibility is less than or equal to 50 percent.¹⁰⁸

Assumption of risk again focuses on the conduct of the party filing suit. That person cannot have knowingly and intentionally exposed itself to known dangers or hazards--in other words, plaintiff may not recover where he has "assumed the risk" of the precise type of harm which he suffered.¹⁰⁹

¹⁰⁵Codified at La.Civ.Code art. 2323.

¹⁰⁶Hoffman v. Jones, 280 So.2d 431 (Fla. 1973).

¹⁰⁷Prosser & Keeton Section 65 at p. 473.

¹⁰⁸Vernon's Tex. [Civ. Prac. & Rem.] Code §53.001 (Supp. 1991).

¹⁰⁹Rogers v. Frush, 262 A.2d 549 (Md. 1970)("intentional and voluntary exposure to known danger"); Cutchin v. S.C. Dept. of Highways and Public Transportation, 389 S.E.2d 646 (S.C. 1990).

CHAPTER 5: USER DOCUMENTS AND DRAFTING CHECKLISTS

Introduction: This chapter is designed as a user guide for Corps Districts, local sponsors, landowners, and aquaculturists who are contemplating becoming involved in a containment area aquaculture operation.¹¹⁰ The chapter will cover the following four hypothetical fact situations that are the most likely scenarios for a CAAP:

- Where the underlying real estate is privately owned (Figure 1).¹¹¹
- Where the underlying real estate is owned by the state or the local sponsor (Figure 2).
- Where the underlying real estate is owned by the federal government and the Corps of Engineers is the entity administering it (Figure 3).¹¹²
- Where the underlying real estate is owned by the federal government and administered by some federal agency other than the Corps of Engineers (Figure 4).

Just as the previous chapter identified some of the legal issues that may come up in a CAAP, this chapter focuses on the legal and operational issues that should be covered in the documents used to establish the legal relationships among the CAAP parties. The chapter's purpose is two-fold. First, the chapter includes a checklist of the issues that should be discussed during negotiations and/or included in the documents, and the obligations and responsibilities peculiar to the coincidence of aquaculture and dredged material disposal--and beyond those contained in the conventional aquaculture lease and disposal easement--that should be included in the documents. Second, the chapter suggests the types of documents that should be generated in each of the four factual hypotheticals in order to establish the legal relationships among the various parties to the operation. The chapter should, then, provide an overview of the documents typically needed in order to get a

¹¹⁰To a lesser degree, the guide may be helpful to collateral parties to a CAAP, like state agency personnel involved in the permit process, who may be involved less directly in the negotiations.

¹¹¹Figures 1 through 4, represent schematically the four hypothetical fact situations and indicate in a shorthand fashion the types of documents needed for each.

¹¹²The least likely scenario of the four is depicted in Figure 3--where the Corps already owns the property. That situation is unlikely to arise because the purpose of the CAAP would not be advanced if the property is already available to the Corps. In other words, if the Corps already owns the underlying real estate, there is no need for the added incentives to induce private landowners to grant the Corps disposal rights.

CAAF project underway, and what provisions should or may be included in those documents.

How responsibilities and obligations will ultimately be allocated is a site-specific proposition--the exigencies, practicalities, and legal constraints of a given site will dictate the ultimate outcome of the negotiations. Since no two sites will be alike, no two sets of documents will be alike. Thus it is not realistic to present sample documents as "definitive" user documents. However, it is possible to identify, by means of sample documents and document checklists, the important matters that should be covered in the documents, and the types of documents needed to set up the legal relationships among the parties and to allocate risks in an equitable fashion.

SUBSTANTIVE PROVISIONS--A CHECKLIST

Aquaculturists using this chapter will already be familiar with the provisions normally included in a commercial aquaculture lease (where no dredged material is involved) if they have ever leased any property for aquaculture purposes. Likewise, the Corps and its local dredging sponsors will already be familiar with the provisions normally included in an easement for the disposal of dredged material (where no aquaculture is involved). Those parties unfamiliar with dredged material disposal easements¹¹³ may review the three sample easements attached to this Technical Report as APPENDIX B. These three sample easements demonstrate the types of provisions normally included in an easement for the disposal of dredged material (where no aquaculture is involved).

What this section explores is those issues and responsibilities that may need to be covered in the user documents for containment area aquaculture above and beyond the usual or normal lease and easement provisions which may be necessary because of the coincidence of the two functions on a single site. In other words, this section discusses how the documents for a CAAP might be

¹¹³The word "easement" refers to a "right of use over property of another." Black's Law Dictionary at p. 457. An easement for the disposal of dredged material grants the recipient (the Corps or the local sponsor) certain limited access rights in order to use the property for the disposal of dredged material.

different or more complicated when compared to a straightforward aquaculture lease or a typical easement for the disposal of dredged material.¹¹⁴

The parties negotiating a containment area aquaculture operation should consider including in the documents setting up the venture provisions allocating the following obligations and responsibilities:

- responsibility for the security of the site¹¹⁵
- site suitability investigative responsibilities, such as sediment testing, study of land-use history, with specific guidelines on what testing should be done and when and who will be financially responsible for each test¹¹⁶
- securing and maintaining insurance on the site¹¹⁷ and equipment
- construction and maintenance of (1) levees; (2) water intake structures; (3) drain structures; (4) roads on levees; (5) access roads to site
- construction and maintenance of an on-site office
- indemnity or "hold harmless" provisions¹¹⁸
- division of responsibility for securing permits and coordination of the acquisition of the necessary state, federal, and local permits for both the aquaculture operation and the dredged material disposal operation
- provisions describing access for each party in the event of emergency, such as a hurricane, including the Corps' agreement to use its best efforts to

¹¹⁴Unfortunately, given the time and space constraints of this technical report, it is not possible to cover exhaustively all aspects of commercial aquaculture leases and CE easements. Other resources are available on this subject, such as the National Aquaculture Library in Beltsville, MD, and state agricultural extension services. A good general source on aquaculture leases (albeit dated) is Wildsmith, Bruce H. 1982. Aquaculture: The Legal Framework. Toronto: Emond-Montgomery Ltd. Chapter 6 & Appendix D.

¹¹⁵With this and other responsibilities in this checklist, the parties may agree to shift the responsibility with possession of the site, or to prorate financial responsibility for the discharge of this obligation according to the percentage of time a party remains in possession of the site.

¹¹⁶This is a very important item. See Chapter 4, Section A, "Chemical Suitability and Soil Testing Issues." As the site-selection report states, "[t]he importance of site selection cannot be overemphasized." Wilson et al. at 67.

¹¹⁷If a local sponsor is involved or the site is located within the jurisdiction of a port authority or navigation district, the regulations of that entity should be reviewed to determine whether any minimum limitations or coverages exist.

¹¹⁸The enforceability of hold harmless agreements is discussed in the previous chapter.

avoid disposing of dredged material during the growing cycle of the aquaculturist, except in extreme emergencies.¹¹⁹

- responsibility for returning the site to an agreed-upon condition at the termination of the Corps' easement and/or the aquaculturist's lease

- arbitration provision to govern disputes that may arise during the operation of the project¹²⁰

One provision that the Corps will probably insist be included in the documents under most circumstances is a provision that establishes the priority of the dredged material function over the aquaculture function. Legally, the documents need to establish that the "primary purpose" of the DMCA is its use as a containment area for the disposal of dredged material, and that the aquaculture function is "secondary or alternative."¹²¹ This should not pose a practical problem where, in the site-selection process, potential sites have been eliminated as unusable where the dredging and disposal operations would overlap with the aquaculture production cycle.

The custody of the site should probably shift from the aquaculturist to the Corps, to the extent this is possible.¹²² In most situations, the Corps' disposal events will alternate with the growing cycles of the fish or other aquatic organisms produced on the property.¹²³ Thus, it will be

¹¹⁹Here, as elsewhere, the negotiations will balance the rights of the aquaculturist to an uninterrupted production cycle with the access rights of the Corps of Engineers in emergency and other circumstances.

¹²⁰Richard Coleman, Program Manager, reviewed and approved this list on September 6, 1990.

¹²¹For example, recent leases of CAAP sites by the Brownsville Navigation District have included the following provisions spelling out the Corps' priority: "It is...an expressed condition of this [Lease] Agreement that aquaculture activity is not to interfere with short term or long term use of the area for dredge disposal." A second provision made reinforces this idea: "The primary use of the lease site is for the placement of dredged material removed from the Brownsville Ship Channel by the U.S. Army Corps of Engineers (USACE)."

¹²²For example, the site selection report mentions the possibility that a dredged material disposal event may occur during the growing cycle of the aquaculturist under certain circumstances. See Wilson et al. "Site Selection, Acquisition, and Planning." Thus it may not always be possible to shift possession in this clear-cut way.

¹²³For example, a recent Brownsville Navigation District lease of the former location of the experimental shrimp farm of the CAAP explains what type of notice will be given to the aquaculturist when the Corps needs the site for

possible, barring emergency circumstances, for the custody and control of the site to shift from the aquaculturist to the Corps and back again. Some or all of the responsibilities listed above may shift to the other party when control of the site shifts to the other party. Also, in the agreement between the Corps and the aquaculturist, it may be possible to allocate on a proportional basis the financial responsibility for security on the site, for example, in proportion to the time the Corps has custody of the premises. The lease itself between the landowner and the aquaculturist may also give the aquaculturist an abatement of rentals for the period during which the Corps has custody and control of the site for its disposal events every 2 years.

DOCUMENTS NEEDED

INTRODUCTION:

Figures 1-4 depict schematically the documents needed in the four fact situations which are likely to exist for a CAAF. As Figures 1 and 2 illustrate, the most likely fact situation (where the land is privately owned or state-owned) will require three documents among the three parties: (1) an easement from the landowner to the Corps; (2) a lease from the landowner to the aquaculturist; and (3) some form of operating agreement or coordination document between the Corps and the aquaculturist, in order to coordinate the disposal of dredged material with the operation of the aquaculture facility. In these fact situations (Figure 1 and Figure 2), the easement may look like the sample easements in APPENDIX B. Where the land is privately owned, state-owned or owned by the local sponsor, the Easement in favor of the Corps will look the same as the Corps's usual Easement for the Disposal of Dredged Material--the involvement of the aquaculturist and the aquaculture surface use should make no difference in the way the easement is drafted. Whether aquaculture is involved or not, the Corps needs the legal right to dispose of dredged material on the site and to take other measures necessary to create and maintain an upland DMCA. The sample easements in APPENDIX B are of the type usually used to give the Corps the legal rights and access it needs to dispose of dredged material in a DMCA on the property of another. Since under all circumstances, the Corps wants its dredged material disposal rights to be

a disposal event. For example, the Corps agrees to give the aquaculturist six months' notice of its plans to use the site for the disposal of dredged material generated by deepening or widening of the Brownsville Ship Channel.

superior to the aquaculturist's rights, the aquaculturist's lease and any other estates in that property must be subject to the Corps' disposal rights. For this reason it is not legally necessary for the easement for dredged material disposal between the landowner and the Corps to even mention the aquaculture surface use. While it is certainly fine to state in the easement that the Corps' access rights are superior to the aquaculturist's, it is not necessary as long as the lease so states.

The following is a more detailed discussion of the documents that will be needed to establish a CAAF and to define and allocate the rights and obligations of the parties. Frequent reference to Figures 1 through 4 will be made to facilitate explanation of the parties' rights and obligations.

A. Where Land is Privately Owned:

There will be at minimum three entities involved in this scenario: the landowner, the aquaculturist, and the Corps.¹²⁴ The most likely factual situation that will exist is illustrated in Figure 1. At least three documents are recommended, and these documents would diagram the relationships among the three parties to the agreement as follows:

First, the Corps should negotiate an easement from the landowner granting him the right to dispose of dredged material on the underlying premises on particular terms. Second, the aquaculturist should negotiate with the landowner a lease which is made expressly subject to the Corps' disposal easement (in other words, the Corps' right is prior to and superior to the aquaculturist's rights). Third, to ensure the enforceability of its rights as with the aquaculturist, some sort of operating agreement or other written document outlining the coordination agreement as between those two parties should be obtained. The reason a third document is recommended is simply that the Corps and the aquaculturist should have their rights reduced to a writing that is enforceable as between each other, should disputes arise between them. The Corps would probably have an argument that it was the third-party beneficiary of any terms agreed to between the landowner and the aquaculturist, but it could have difficulty enforcing any such terms when the Corps was not a party

¹²⁴Depending on the particular facts, there may also be a port authority or navigation district responsible for securing disposal easements; furthermore, the aquaculturist may be a corporate entity which may require additional protections in the documents.

nor a signatory to that agreement. Even so, to be on the safe side, it would be better to have an agreement between the Corps and the aquaculturist.

Slight variations in state property law may necessitate slightly different agreements, and the formalities of execution, recordation, and priority, will vary from state to state. Thus, when the parties reach the agreement drafting stage, it is essential that a qualified lawyer be employed to draft and review the agreements. In addition, the parties may want some sort of preliminary agreement fairly early in the site-selection process. This agreement should outline which entity has what preliminary responsibilities. Since site selection is so central to the success of a CAAF, the responsibility for the steps recommended both in the "Site Selection" Technical Report and the "Chemical Suitability" Technical Report should be specifically allocated among the parties.¹²⁵ Furthermore, since success in the CAAF is tied as well to the ability to secure the necessary permits for all functions to take place on the site, preliminary consultations with permitting agencies should be required by the preliminary documents, and closing is subject to assurances that the important regulatory permits can, in fact, be secured in a timely fashion.

B. Where Land is Owned by the State or the Local Sponsor:

As Figure 2 illustrates, the number and type of documents will be the same here as when a private landowner is involved. Some special formalities as to execution may exist as well, and these vary from state to state.

There are at least three other issues to consider in drafting the documents setting up a containment area aquaculture program when the underlying real estate is owned by a state or local governmental entity, like a county, city, port district, or navigation district. First the aquaculturist should be sure that the owner of the real estate has the legal authority to enter into a lease. In general, cities and counties do not have that authority unless the state grants them this power by statute or the municipal charter gives them this authority.¹²⁶ Thus, during the site selection process, the aquaculturist must satisfy himself from the enabling legislation or statute or

¹²⁵See, generally, Chapter 4, Part A, "Chemical Suitability and Soil Testing Issues."

¹²⁶56 Am Jur 2d Section 556 at 609.

provisions in the charter that the entity has the express or implied authority to lease the property to him.¹²⁷

A second consideration arises when the site is owned by a port authority or a navigation district, and is related to the first. The enabling legislation creating the port authority or navigation district and allowing it to lease property must also give the entity sufficiently broad powers to include the leasing of its property to private concerns for the aquaculture surface use, either expressly or by implication. Language as empowering these entities to lease property for "water-related" uses would surely be broad enough to include commercial aquaculture; more restrictive language, such as a limitation on land use to "waterborne commerce" presents a closer question and may exclude aquaculture, if strictly construed. Likewise, "port-related use" could arguably include the aquaculture surface use, since it is an integral part of the Corps' effort to carry out its navigation function by facilitating its acquisition of dredged material disposal areas.¹²⁸ In any event, participants in a containment area aquaculture program should investigate this issue in the early stages of the site-selection process. Often, this will not present a practical problem because frequently the port authority will also be the local sponsor of the dredging project and thus charged with responsibility for securing disposal space for Corps dredging projects. Thus, their interests will be identical and the port authority or navigation district will be involved from the beginning in the search for suitable dredged material disposal space, and the port master plan will be consulted early on.

A third and final way that the picture is complicated by state or local ownership of the property is that the lease may have to comply with additional state or local aquacultural lease laws. Such laws may impose certain restrictions on the terms that such a lease may contain. The types of restrictions this legislation may impose include matters such as the following:

- the size of the area to be leased
- the duration of the lease and extensions or renewals thereof

¹²⁷Kozlowski, James. 1982 (May). "Leasing Public Facilities to Private Concerns: Some Legal Checkpoints." Parks & Recreation, pp. 59-60.

¹²⁸Cole, J., and Brainard, M. 1978. "Evaluation of Laws and Regulations Impacting the Land Use of Dredged Material Containment Areas," Technical Report D-78-55, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, Pp. 90-1.

- the need for a performance bond or other assurances of the tenant's performance

- assignability or transferability and/or the need for approval by the appropriate state agency

- restrictions on the method or amount of computing rent

- the landlord's power to terminate or revoke the lease

- the disposition of improvements at termination of the lease or in event the tenant defaults

If these requirements are not checked and satisfied, the lease may not be enforceable.¹²⁹

C. Where Land is Federally Owned:

If the owner of the property is the United States, the Corps or local sponsor will handle things slightly differently because of the federal character of the property owner. The precise differences in the documents needed and what they contain depend on one key variable--whether the federal land is under the jurisdiction of the Corps or whether the federal land is administered by some other federal agency.

However, from the outset, it should be observed that the likelihood of this issue coming up in the context of Corps ownership is exceedingly slim. If the Corps already owns the property, it can presumably use the land in whatever ways it sees fit--including the disposal of dredged material--subject of course to any limitations contained in the deed or any restrictions it has already agreed to. In other words, if the Corps wants to dispose of dredged material there, it certainly can, subject of course to applicable permit requirements. Besides, since no landowner will be involved the Corps doesn't need to offer itself incentives to do what it wants to do with its own land. In the unlikely event the Corps does promote its own land for a CAAF, it will only need one document to do so--a lease in favor of the aquaculturist which contains both the lease provisions and the provisions that would be contained in an operating agreement. Figure 3 illustrates this.

However, in the second situation--where the property is under the jurisdiction of some other federal agency (see Figure 4)--the Corps may still want to try to secure disposal space using containment area aquaculture. This

¹²⁹See, e.g., Miller, J. (compiler). 1990. Florida Aquaculture Regulatory Sourcebook. Pub. of the Florida Dept. of Agriculture and Consumer Services.

issue may very well come up in coastal areas where competition for land use is the fiercest. For example, the Corps may find that it wants to put a containment area on land that is part of a military base or a Coast Guard station.

If this is the case, then the documents needed to secure the right to use the federal land for the disposal of dredged material and the coordinated aquaculture function will be different. As Figure 4 illustrates, instead of an easement from a private individual, the Corps will secure an Interagency Agreement or InterDepartmental agreement (where both agencies are DoD agencies), and a permit.¹³⁰ Thus, when some federal agency other than the Corps of Engineers is the agency responsible for the property being considered for CAAF participation, the documents needed may be more complicated. Even though practices vary from District to District,¹³¹ the Corps will have to have at least three documents in order to start a CAAF, and the document between the Corps and the agency must be adequate to protect the Corps' rights and within the scope of the executing agencies' authority. In this situation, the power to execute such agreements in favor of the Corps must be within the authority allowed the agency in its enabling legislation, or whatever restrictions may exist on the agency's powers or its property rights.

With respect to the substantive provisions that the above documents ought to contain, where the Corps is the landowner, it would need to include language in the lease reserving its rights to dispose of dredged material and maintaining the legal superiority of those rights vis-a-vis the rights of the aquaculturist. However, in the other situation, where the Corps has to deal with another federal agency, the situation is closer to the original situation, where the Corps secures from the federal agency/landowner the rights it wants for the disposal of dredged material, and in those negotiations secures the superiority of those rights over the rights of the aquaculturist. The lease from the federal agency to the aquaculturist should, as in the first situation, spell out the fact that it is subject to the Corps' rights.

¹³⁰Telephone call, Ken Chennault, Vicksburg Corps District, Real Estate Division, 1-16-91.

¹³¹Although some Corps Districts do not routinely record these agreements and easements in the land records, it may be worth the few dollars in recording costs to ensure adequate notice of the rights of the Corps with respect to third parties.

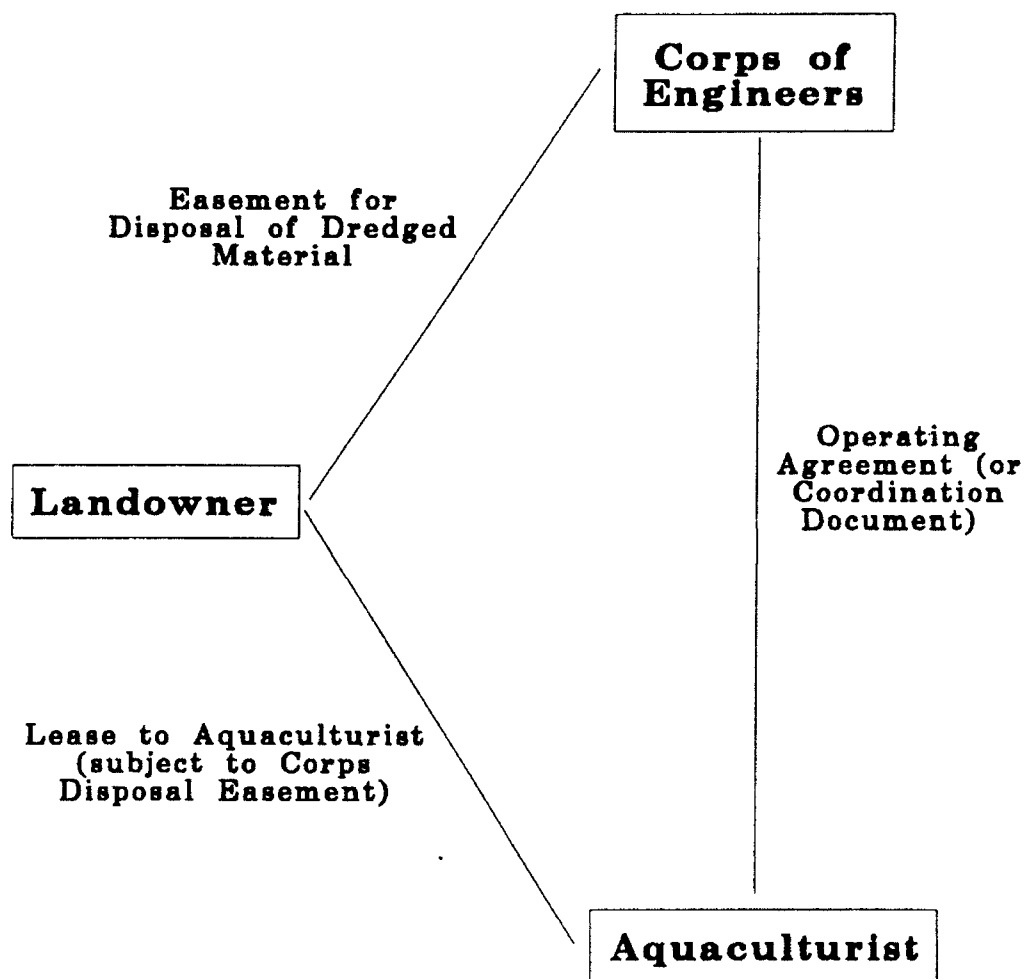


Figure 1. Documents Recommended for Establishment of a Containment Area Aquaculture Project When Land is Privately Owned

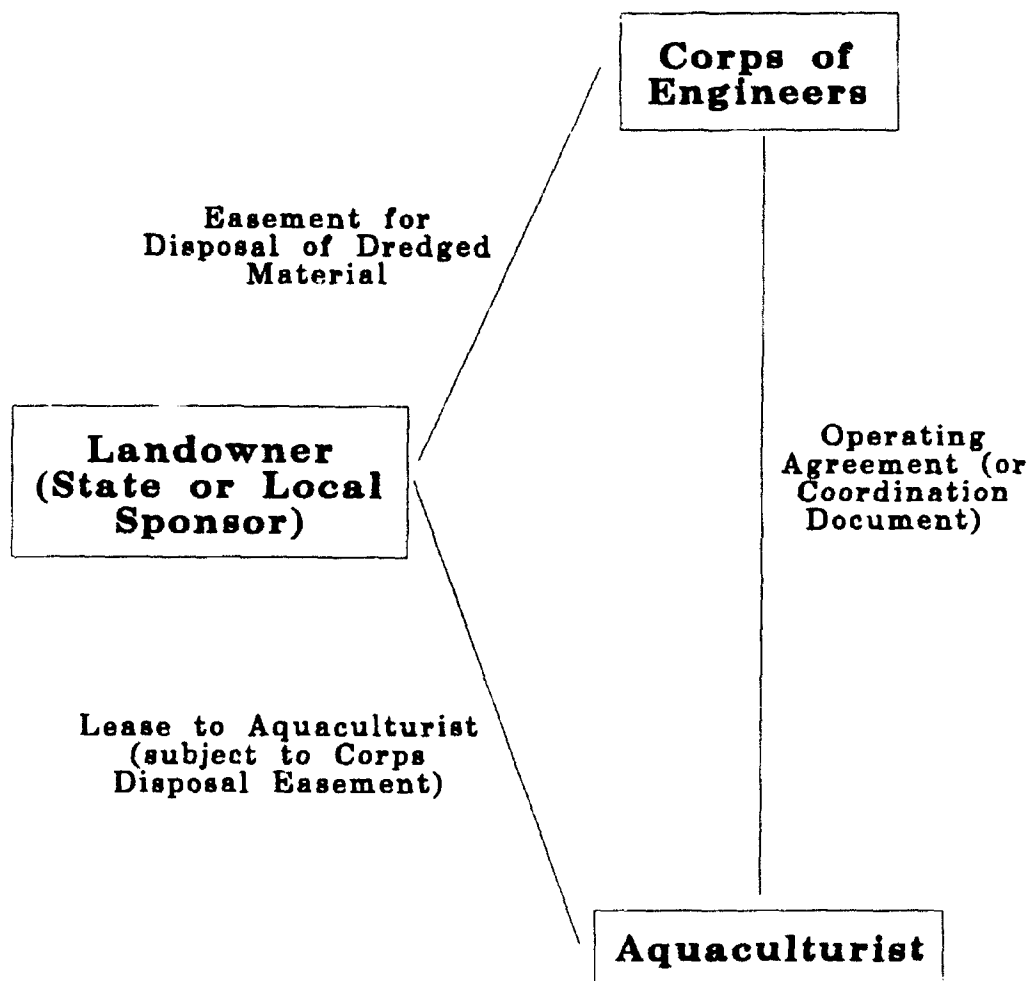


Figure 2. Documents Recommended for Establishment of a Containment Area Aquaculture Project When Land is Owned by the State or Local Sponsor

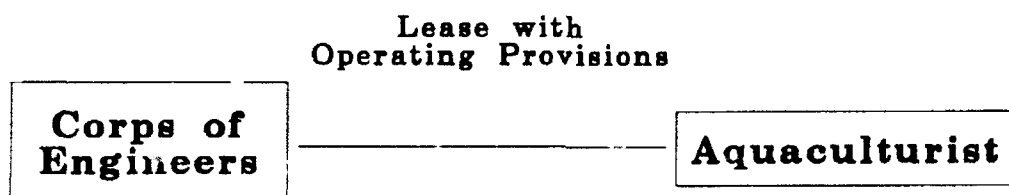


Figure 3. Documents Recommended for Establishment of a
Containment Area Aquaculture Project When Land is
Federally Owned and Administered by the Corps

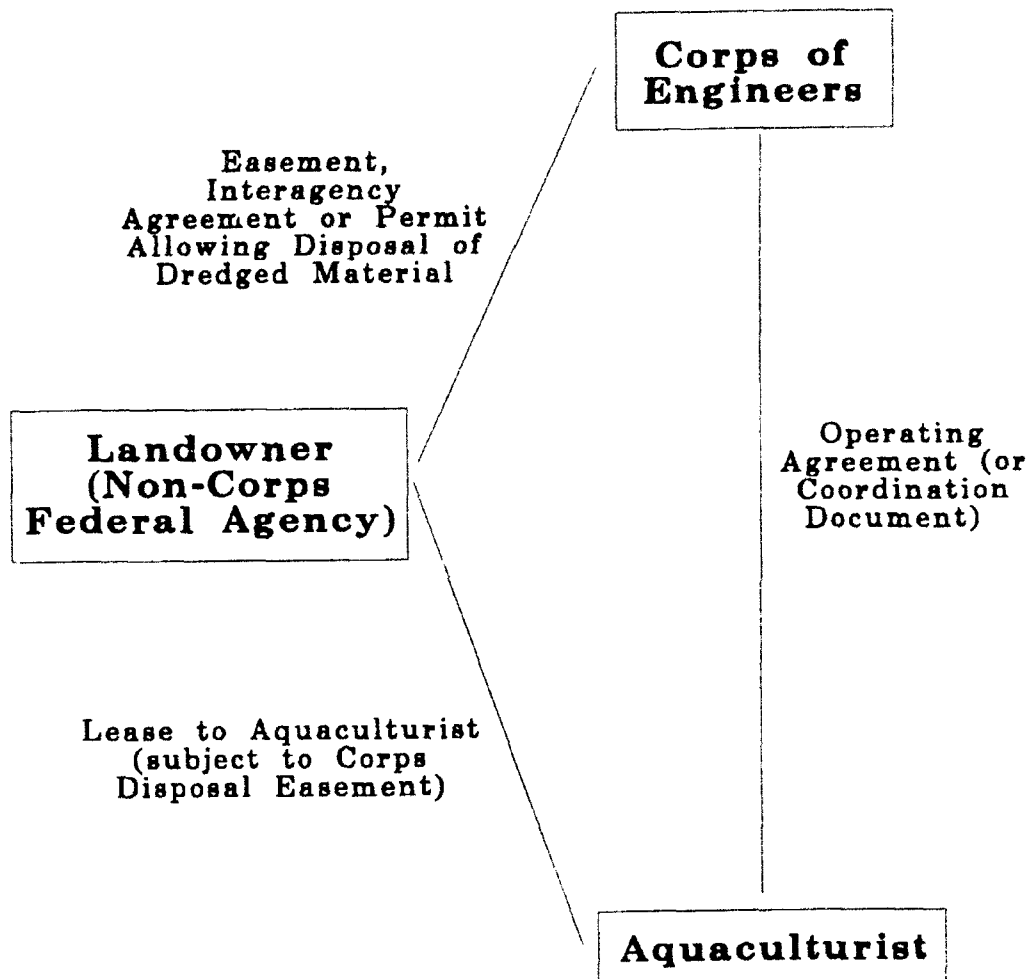


Figure 4. Documents Recommended for Establishment of a Containment Area Aquaculture Project When Land is Federally Owned but not Administered by the Corps

Table 1
List of Acronyms

ADEM	- Alabama Department of Environmental Management
CAAF	- Containment Area Aquacultural Facility
CAAP	- Containment Area Aquaculture Program
CBRA	- Coastal Barrier Resources Act
CE	- Corps of Engineers
CEQ	- Council on Environmental Quality
CMA	- Coastal Management Act
CUP	- Coastal Use Permit
CWA	- Clean Water Act
CZ	- Coastal Zone
CZMA	- Coastal Zone Management Act
DCA	- Department of Community Affairs
DEQ	- Department of Environmental Quality
DER	- Department of Environmental Regulation
DMCA	- Dredged Material Containment Area
DNR	- Department of Natural Resources
DRI	- Determination of Regional Impact
DWFHC	- Department of Wildlife and Fisheries Habitat Conservation
EA	- Environmental Assessment
EIS	- Environmental Impact Statement
EO	- Executive Orders
EPA	- Environmental Protection Agency
FONSI	- Findings of No Significant Impact
FTCA	- Federal Tort Claims Act
FWS	- Fish and Wildlife Service
GLO	- General Land Office
LEDO	- Longterm Effects of Dredging Operations Program
MPC	- Municipal Planning Commission
NEPA	- National Environmental Policy Act
NHPA	- National Historic Preservation Act
NMFS	- National Marine Fisheries Service
NPDES	- National Pollution Discharge Elimination System
OFW	- Outstanding Florida Waters
RPC	- Regional Planning Commission/Council
SCCC	- South Carolina Coastal Council
SEPA	- State Environmental Policy Act
TAC	- Texas Administrative Code
TPWD	- Texas Parks and Wildlife Department
TWC	- Texas Water Commission
USACE	- U.S. Army Corps of Engineers
USDA	- U.S. Department of Agriculture
WES	- Waterways Experiment Station
WRC	- Water Resources Commission

APPENDIX A: STATE REGULATION OF DREDGED MATERIAL
DISPOSAL IN THE MODEL STATES

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
ALABAMA			
I. (a) Wetlands Protection	AC Title 9, Conservation and Natural Resources, Ch. 7, Presentation, Development, etc. of Coastal Area § 9-7-10 et seq.; ADEM AR 335-8-1-.13	Dept. of Environmental Management (ADEM), Water Div. 1751 Con. W.L. Dickinson Dr. Montgomery, AL 36130 Tim Forrester (205) 271-7958 Richard Hulcher (205) 271-7786	Promotes, improves and safeguards the land and water in the coastal areas of the state, including wetlands.
(b) Water Quality	Water Pollution Control Act AC 22-22-1 et seq.	ADEM, Water Div., Industrial Wastewater Section John Poole (205) 271-7852	Establishes water quality standards and issues permits for discharge of pollutants into waters of the state (pollution as defined at 22-22-1(3) includes dredge spoil). Issues 401 Water Quality Certification.
(c) Wild and Scenic Rivers	No pertinent legislation.	Dept. of Conservation and Natural Resources (DCNR) Jim Goodwin (205) 242-3165	
(d) Fish and Game Habitat Protection	Fish, Game, and Wildlife Management Areas AC 9-11-300	DCNR Wildlife Section (205) 242-3469 Fisheries Section (205) 242-3471	Establishes wildlife management for the protection and restocking of wildlife species, for the planting and cultivation of game and fish foods, as well as, establishing provisions for the harvesting of game and fish crops. Contact should be made with Fisheries Section if fish or shrimp are going to be brought into state for harvesting.
(e) Environmental Impact (state NEPA)	No pertinent legislation.	DCNR Jim Goodwin (205) 242-3165	
(f) Coastal Zone Management	Alabama Coastal Area Management Act of 1976 AC Title 9, Conservation and Natural Resources, Ch. 7, Presentation, Development, etc. 9-7-10 et seq.; AR 335-8-1	ADEM John Carlton (205) 479-2336	Promotes, improves and safeguards the land and water in the coastal areas of the state.

(D) Physical or Geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers for variances?
Areas inundated or saturated by surface or ground water to adequately support and do support a prevalence of vegetation typically adapted for life in saturated soil conditions. ADEM AR 335-8-1-.02(yy)	(1) No (2) No	Yes	Yes, File Joint Application and notification form, Corps of Engineers/ADEM Form 166.	No
All "waters of the state" as defined at 22-22-1(2).	(1) No (2) No	Yes	Yes, File the joint Corps of Engineers/ADEM Form 166, with the Corps.	No
Designated areas as specified.	(1) No (2) No	No	Wildlife Section will comment during the 404 process.	No
Designated coastal zone as specified at AC 9-7-10(1) - 10(2).	(1) No (2) No	Yes	Yes, File an informational copy of the joint Corps of Engineers/ ADEM Form 166 with ADEM.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Alabama (cont'd) (g) NPDES	Water Pollution Control Act AC 22-22-1 et seq.	ADEM, Water Div., Industrial Wastewater Section John Poole (205) 271-7852	Alabama being a "delegated state" has authority to issue NPDES permits. Permit not required for the construction phase of the impoundment; however, it will be needed for operation.
II. (a) State Land Use and Land Use Planning	Regional Planning Commissions AC 11-85-1 et seq.	Regional Planning Commissions (See local government for appropriate address.)	Develops regional plans to provide planning, guidance and assistance to accomplish a coordinated, adjusted and harmonious development of region. Municipal Planning Commissions may adopt a regional plan.
(b) Control of State Lands	Public Lands AC 9-15-1	DCNR, Land Div. 64 N. Union Room 752 Montgomery, AL 36130 Kent Hanby (205) 242-3484	Protects and manages state water bottoms under navigable waterways. Authority to issue leases and assess royalties for removal of dredged material.
(c)(1) Floodplain Protection	Alabama Water Management Act. AC 9-9-1 et seq.	Water Management Districts, Board of Water Management Commissioners	Establishes improvement works for the drainage of wet, swamp and over-flowed lands of the state for flood prevention, conservation, development, utilization and disposal of water within the state.
(c)(2) Floodplain Protection	Comprehensive Land Use Management in Flood Prone Areas AC 11-19-1 et seq.	County Commission, County Planning Commission	Adopts zoning ordinances and building codes for flood prone areas outside corporate limits of a municipality.
(d) Levee Construction Permits	No pertinent legislation.		

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Any project within state that discharges any pollutant into navigable waters of the state.	(1) No (2) No	Yes, but only when aqua- culture operation in place.	Yes, based on volume of discharge.	No
Governor designated planning area.	(1) No (2) No	No	The Commissions will have an opportunity to comment on the proposed project during an intergovernmental agency review process.	No
Public water bottoms of the state under navigable waterways.	(1) No (2) No	Lease required.	A letter should be sent to the Lands Office outlining the proposed project when the ADEM Form 166 is requested.	No
Within designated districts as established by county probate courts.	(1) No (2) No	No	No	No
Each county within the state.	(1) No (2) No	No	Comply with requirements of building codes and zoning ordinances.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
FLORIDA			
I. (a) Wetlands Protection	Warren S. Henderson Wetlands Protection Act of 1984 FS 403.91-.938 FAC 17-302, 17-312	Dept. of Environmental Regulation (DER), Div. of Water Management 2600 Blair Stone Rd. Tallahassee, FL 32399-2400 Janet Llewellyn (904) 488-0130	Regulates dredge and fill activities in state wetlands. DER must be satisfied the project will not violate state water quality standards and is not contrary to the public interest.
(b)(1) Water Quality	Florida Air and Water Pollution Control Act FS 403.011-.261 FAC 17-302	DER, Div. of Water Management	Issues water quality certification for dredge discharges. Discharge cannot violate criteria of FAC 17-302. Special standards for areas designated Outstanding Florida Waters (FAC 17-4.242).
(b)(2) Water Quality	Florida Water Resources Act of 1972 FS 373-013, et seq.	DER, Div. of Water Management through five Water Management Districts Bart Bibler (904) 488-6221	DER - focuses on policy development through the State Water Use Plan and can also exercise any power authorized to a Water Management District. Water Management District - operates water management works and implements permit programs. Each District has authority to implement dredge and fill permit criteria within certain isolated wetlands.
(c) Wild and Scenic Rivers	Myakka River Wild and Scenic Designation and Preservation Act FS 258.501	Dept. of Natural Resources (DNR), Div. of State Lands 3000 Commonwealth Blvd. Tallahassee, FL 32399 Grant Gelhardt (904) 488-6242	Protect and enhance ecological, fish, wildlife, and recreational values within a designated river area.
(d)(1) Fish and Game Protection	Florida Aquatic Preserve Act of 1975 FS 258.35-.394 and FS 258.40-.46 FAC 16Q-20	DNR, Div. of State Lands Bureau of Aquatic Preserves (904) 487-4436	Authority to regulate all activity within a preserve.

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific Permit procedures:	(H) Allows waivers or variances?
State wetlands as defined at FS 403.91(7). A vegetative index listed at FAC 17-3.022 determines the landward extent of the state wetlands.	(1) Yes (2) No	Yes	Yes, Joint Permit Application FS 403.918, FAC 17-312	Yes, FS 403.927
All natural and artificial water bodies including impound- ments where possibility of discharge exists.	(1) Yes (2) Yes FS 403.061(24)	Yes	Yes, FAC 17-4.055 Yes, Joint Permit Application	Yes, FAC 17-4.04, 17-4.243
All water on or beneath the surface, including natural or artificial watercourses, ponds, coastal waters, and diffused surface water beneath the ground.	(1) No (2) No	Yes	Yes, FAC 17-4.055 Joint Permit Application	Yes, FAC 17-4.04 through 4.243
Designated segment of the Myakka River.	(1) No (2) No	Yes	Yes, FS 258.501(9)(a)(b) Joint Permit Application	Yes, but only if DNR determines there will be no adverse impact.
State owned land, including water bottoms designated as aquatic preserves.	(1) Yes (2) No	Yes	Yes, Joint Permit Application	Yes, FS 258.42(3)

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Florida (cont'd.)			
(d)(2) Fish and Game Habitat	Wildlife FS 372	Florida Game and Fresh Water Fish Commission, Office of Environmental Services 620 S. Meridian St. Tallahassee, FL 32399-1600 (904) 488-3831 or 4066	Regulatory authority over projects with potential impact on state's endangered fauna and flora.
(e) Environmental Impact (state NEPA)	Florida Environmental Land and Water Management Act of 1972 FS 380.012-380.085	Dept of Community Affairs (DCA), Bureau of State Planning 2740 Centerview Dr. Tallahassee, FL 32399 Alex Magee, DCA (904) 488-2356 John Outland, DER (904) 488-2939	Approves, denies or restricts developments of regional impacts and development within designated areas of critical state concern. Coordinated with DER.
(f)(1) Coastal Zone Management	Florida Coastal Management Act of 1978 FS 380.20-380.25	DCA, Office of Coastal Management Ralph Contrell (904) 922-5438	Certifies compliance with the state's Coastal Zone Management Plan.
(f)(2) Coastal Zone Management	Beach and Shore Preservation Act FS 161.011-.212 FAC 16B-33, 16B-36	DNR, Div. of Beaches and Shores 3900 Commonwealth Blvd. Tallahassee, FL 32303 Mark Leadon (904) 488-3181	Establishes and enforces coastal construction and control lines to preserve natural conditions of the beach and shoreline while attempting to minimize storm and hurricane damage. Includes beach restoration and maintenance dredging.
(f)(3) Coastal Zone Management	Coastal Zone Protection Act of 1985 FS 161.52-.58	DNR and DCA	Establishes and enforces construction standards to minimize damage to the natural environment, private property and life.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Any land being developed which might cause impact upon endangered fauna or flora of the state.	(1) No (2) No	No	Review process by Office of Environmental Services is initiated by the Joint Permit Application.	No
Any development, which because of its character, magnitude or location, would have a substantial effect upon health, safety or welfare of the citizens of more than one county. Also, included are designated areas of Critical State Concern, presently there are three: Florida Keys, Big Cypress Swamp, Green Swamp.	(1) No (2) No	No	No, Joint Permit Application initiates review and input to DER.	No
Statewide coastal zone consists of: (1) cities and/or counties contiguous to state waters which are eligible for coastal management funds; [FAC 17-4.02(17)] and (2) areas within the seaward boundary of three nautical miles (defined by federal Coastal Zone Management Act.)	(1) No (2) No	Yes	Yes, review is initiated by Joint Permit Application.	No
State sovereignty lands below the mean high water line of any tidal water and over land up to the setback or control line.	(1) Yes, only for beach restoration and main- tenance dredging. (2) No	Yes	Yes, Joint Permit Application Permit FAC 16B-33.06, 07, and .08	Yes, FAC 16B-33.05 and 16B-33.15
Coastal zone of the state as define at FS 161.54(1).	(1) No (2) No	Yes, local building codes.	No	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Florida (cont'd.)			
(g) NPDES and/or Discharge Permits	Florida Air and Water Pollution Control Act FS 403.011 - .261.	DER, Div. of Waste Management 2600 Blair Stone Rd. Tallahassee, FL 32399-2400 Phil Corum or Mark Bordolph (904) 488-4522	Issues permits and regulates industrial waste discharges (aquaculture facilities included). Florida is not an EPA delegated state, therefore an NPDES application must be filed with the U.S. EPA.
II. (a)(1) State Land Use and Land Use Planning	Florida Environmental Land and Water Management Act of 1972 FS 380.012 et seq. (1985) FAC 9B-16	DCA, Bureau of State Planning 2740 Centerview Dr. Tallahassee, FL 32399 Jim Quinn (904) 488-4925	Oversight for comprehensive land management within the state, and authority to designate areas of "critical state concern" and regulate the use within them.
(a)(2) State Land Use and Land Use Planning	Florida State and Regional Planning Act FS 186.001, 186.031, 186.801-186.911 Florida Regional Planning Council Act FS 186.501-.513; FAC 29F-1.001	DCA, Bureau of State Planning Alex Magee (904) 488-4925	Oversight authority for development of Regional Development Plans and State Comprehensive Plan.
(a)(3) State Land Use and Land Use Planning	Local Government Comprehensive Planning and Land Development Regulation Act FS 163.3161 et seq.	DCA, Bureau of State Planning Jim Quinn (904) 488-4925	Local governments develop and implement comprehensive plans in conjunction with state and regional plans. Plans include a coastal element and a conservation element.
(b)(1) Control of State Lands	Land Acquisition Trust Fund FS 253 et seq.	Board of Trustees, Internal Improvement Trust Fund through DNR, Div. of State Lands Debra Hart (904) 488-2297	Leases state submerged lands; purchases lands for state conservation, natural floodplains, protection of water quality or quantity, protection of fish and wildlife habitat and recreational uses. *State holds title to submerged lands; removal of any material from the water bottoms must receive DNR approval.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Any project within the state which discharges industrial waste into navigable waters (aquaculture discharges included).	(1) No (2) No	No, but may change.	No	No
State designated areas.	(1) No (2) No	No	No, Joint Permit Application initiates review.	No
State designated regional planning areas.	(1) No (2) No	Yes, at local level.	No	No
Local government jurisdiction over land within their boundaries.	(1) No (2) No	Yes	No	No
Any land which meets the state's planning needs and receives approval of the Board.	(1) Yes (2) No	Yes	Yes, Joint Permit Application	Yes

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Florida (cont'd.) (b)(2) Control of State Lands	State Parks and Preserve. FS 258	DNR, Div. of Recreation and Parks	Manages designated areas to promote use, enjoyment, public benefit, and preservation.
	State Lands FS 253 FAC 16Q-21	Board of Trustees of the Internal Improvement Trust Fund through DNR, Div. of State Lands	Authority to sell state land; to purchase land for public recreation areas, and to approve leasing of state submerged lands.
(c) Floodplain Protection	Water Resources FS 373	DER and the five Water Management Districts Bart Bibler (904) 488-6221	Prevents damage from floods, soil erosion, and excessive drainage.
(d) Levee Construction Permits	Water Resources FS 373 Management and Storage of Surface Water FAC 17-9	DER and the five Water Management Districts	Authorizes permits for construction, alteration, maintenance, operation and abandonment of dams, impoundments reservoirs and appurtenant works.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredge material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
All state parks, preserves, wilderness areas, wild and scenic rivers.	(1) No (2) No	Yes	Yes, Joint Permit Application	No
State lands, including sub- merged lands, and any land deemed by the Board to be needed for the purpose of providing public recre- ational opportunities.	(1) No (2) No	No	Yes, Joint Permit Application	No
Within designated Water Management District.	(1) No (2) No	No	No	No
Includes any ditches, canals, conduits, channels, culverts, pipes and other construction that connects to, draws water from, drains water into, or is placed in or across waters of the state (373.403(5)).	(1) No (2) No	Yes	Submit application to local District for Surface Water Management Permit.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
LOUISIANA			
I. (a) Wetlands Protection	La. Coastal Wetlands Conservation and Restoration Act LRSA Title 49, § 214.1 - 214.5.	Dept. of Natural Resource (DNR), Coastal Management Div., Wetlands P.O. Box 44487 Baton Rouge, LA 70804-4487 John Leslie (504) 342-4602	Issues permits for all approved dredged and fill projects within state "wetlands." Permit compliance should satisfy federal requirements.
(b) Water Quality	La. Water Control Law LRSA, Title 30, § 2071 LAC, Title 33, vol. 14, part IX	Dept. of Environmental Quality, Office of Water Resources P.O. Box 82215 Baton Rouge, LA 70884-2215 (504) 765-0634	Investigates, controls, regulates or restrains the discharge of waste material or polluting substance into waters of the state by approving or disapproving the issuance of State Water Quality Certification. This certification meets federal consistency requirements for 401 certification.
(c) Wild and Scenic Rivers	La. Natural and Scenic Rivers Act LRSA, Title 56, § 1841	Dept. of Wildlife and Fisheries, Habitat Conservation P.O. Box 98000 Baton Rouge, LA 70898-9000 Blue Watson (504) 765-2369	Preserves, protects, develops, reclaims, and enhances the wilderness qualities, scenic beauty and ecological regime of designated rivers.
(d)(1) Fish and Game Protection	Upland Wildlife Refuges, Wildlife Management Areas and Public Hunting Grounds LRSA, Title 56 Ch. 2, Part I, Subpart F, § 781	Dept. of Wildlife and Fisheries, Habitat Conservation Gary Lester (504) 765-2821	Establishes, maintains, and manages wildlife management areas, wildlife refuges, public hunting grounds, upland game preserves and wildlife sanctuaries for protection and management of wild animals.
(d)(2) Fish and Game Protection	LRSA, Title 56, § 6 (15), Ch. 1, Part I	Dept of Wildlife and Fisheries, Habitat Conservation Gary Lester (504) 765-2821	Regulatory authority over projects with potential impact on state's endangered fauna and flora, as well as, all birds, animals, fish, diamondback terrapin, oysters, and shrimp in state waters or or within state borders.
(e) Environmental Impact (state NEPA)	No pertinent legislation.		

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
All "wetlands," within the state as defined at 214.3(3).	(1) No (2) No	Yes	Yes, submittal of Corps of Engineer form 4345 along with supporting documentation listed in application packet to the Coastal Management Div. *See application if outside coastal zone.	No
"Waters of the state" include both surface and underground waters, all rivers, streams, lakes, groundwaters, and all other water courses and waters within the state.	(1) No (2) No	Yes	Send a copy of Corps Form 4345 to Dept. of Environ- mental Quality.	No
Designated rivers.	(1) No (2) No	Yes	The Joint Application process provides opportunity for agency input.	No
Designated areas as listed in Title 56, § 801.	(1) No (2) No	No	A letter and map describing the proposed project and lo- cation should be sent to Com- mission. A letter of approval stating no anticipated encroach- ment must be received by the applicant before project begins.	No
Wildlife and fisheries within the state.	(1) No (2) No	Yes	A letter and map describing the proposed project must be submitted for review and approval.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Louisiana (cont'd.)			
(f) Coastal Zone Management	State and Local Coastal Resources Management Act of 1978 LRSA, Title 49, § 214.21-.40 LAC 43:1. 701 et seq.	DNR, Coastal Management Div. P.O. Box 44487 Baton Rouge, LA 70804-4487 Lynn Wellman (504) 342-7591	Issues coastal use permits for approved projects having either state or local concern. State must certify the federal project will comply with the state's coastal zone management plan.
(g) NPDES and/or Discharge Permits	La. Water Control Law, LRSA, Title 30, § 2071	Dept. of Environmental Quality, Water Pollution Control Div., Permit Section P.O. Box 82215 Baton Rouge, LA 70884--2215 Jesse Chang (504) 765-0525	Investigates, controls, regulates, or restrains the discharge of waste material or polluting substance into waters of the state by approving or disapproving issuance of the state's Water Quality Certification. (Since La. is not a delegated state, an NPDES Application must be filed with the U.S. EPA. See Ch. 3, Part A.)
II. (a)(1) State Land Use and Land Use Planning	Planning Commissions LRSA, Title 33, Part IV, subpart A, § 101.	Parish Planning Commission and/or Municipal Planning Commission	Develops and adopts master plans for the physical development within their respective jurisdictions.
(a)(2) State Land Use and Land Use Planning	Regional Planning Commissions LRSA, Title 33, Part IV, subpart C, § 131.	Regional Planning Commissions	Prepares development plans to harmonize with planning activities of the federal, state, parish, municipality or other agency for the purpose of achieving the most desirable pattern of land use.
(b)(1) Control of State Lands	State Water Bottom Management LRSA Ch. 14, Title 41, § 1701 -1714	DNR, Div. of State Lands P.O. Box 44124 Baton Rouge, LA 70804 (504) 342-4577	Protects, administers, and conserves state water bottoms through granting permits, licenses or leases for encroachments.

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Areas within the state's coastal zone as defined in LRSA Title 49, § 214.23(4) and 214.24. Special Use Areas designated within coastal zone receive heightened scrutiny.	(1) Yes (2) No	Yes	Yes, submittal of the Corps of Engineer form 4345, along with supporting documentation listed in the State Coastal Use Permit application packet, to the Coastal Management Div. *See application if outside coastal zone.	Yes, Title 49, § 214.34.
"Waters of the state" which includes both surface and underground waters, all rivers, streams, lakes, groundwaters, and all other water courses and waters within the state.	(1) No (2) No	Yes	Yes, State Application form SCC-2 and EPA forms 1(3510-1), 2C(3510-2C), 2C(3510-2D) or 2E(3510-2E).	No
Designated parish or municipality.	(1) No (2) No	Approval needed.	No	No
Designated planning districts consisting of contiguous parishes or municipalities.	(1) No (2) No	No	No	No
All state sovereignty water bottoms.	(1) Yes (2) Yes	Yes	Yes, § 1701.	Yes, § 1705.

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Louisiana (cont'd.)			
(b)(2) Control of State Lands	Fill Sand and Fill Material LRSA, Title 56, § 2011	Dept. of Wildlife and Fisheries, Habitat Conservation, Ecological Services	Assesses royalties for removal of fill sand or fill material from state water bottoms. (Navigational servitude should waive.)
(c) Floodplain Protection	Statewide Flood-Control Program LRSA, Title 38, § 90.1-90.17 and 38, § 1601, et seq.	Dept. of Transportation and Development, Office of Public Works P.O. Box 94245 Baton Rouge, LA 70804-9245	Reviews and evaluates applications for flood control projects submitted by either a municipality or parish. Approves formation of Drainage Districts for the purpose of draining and reclaiming undrained or partially drained marsh, swamp, and overflowed lands within the state that must be leveed and pumped in order to be drained and reclaimed.
(d) Levee Construction Permits	Levee Districts LRSA, Title 38, § 281 et seq.	Levee Boards, Levee and Drainage Boards	Constructs and maintains levees, drainage, and levee drainage for state approved projects.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
State water bottoms as defined in Title 41, § 14.	(1) Yes (2) No	No	Corps of Engineers Application for dredging will alert the state of the project for assessment.	No, cross reference Title 41, § 1705.
Designated flood control jurisdictions within the state.	(1) No (2) No	No	No	No
Designated jurisdictions with- in the state.	(1) No (2) No	No	No	No

	(A)	(B)	(C)
Category of state law:	Title and state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
MARYLAND			
I. (a)(1) Wetlands Protection	Tidal Wetlands Act Md. Natural Resources Code Ann. § 9-101 to 9-503 (COMAR regulations not available)	Dept. of Natural Resources (DNR), Water Resources Adm. Tawes State Office Bldg. D-4 Taylor Ave. Annapolis, MD 21401 Charles De Rose (301) 974-3871	Issues, denies, or limits permits in wetlands. DNR oversees private wetlands, the Board of Public Works oversees state wetlands.
(a)(2) Wetlands Protection	Non-Tidal Wetlands Protection Act Md. Natural Resources Code Ann. § 8-1201 et seq. COMAR 08.05.04	DNR, Waterway Permit Div. Bill Jenkins (301) 974-3841	Issues, denies or limits permits for regulated water-dependent activities, including dredging, discharging and filling -COMAR 08.06.04.01(70)(2).
(b) Water Quality	Environment Title 9, Water, Ice and Sanitary Facilities; Subtitle 3, Water Pollution Control, Md. Code Ann. COMAR 26.08.02	Dept. of Environment, Water Management Administration, Div. of Standards and Certification 2500 Broening Hwy. Baltimore, MD 21224 JoAnn Watson (301) 631-3609	Establishes water quality standards for waters of the state, and issues Water Quality Certification for activity which might result in a discharge of dredged or fill material to those waters.
(c) Wild and Scenic Rivers	Natural Resources Title 8, Water and Water Resources; Subtitle 4, Scenic and Wild Rivers Review Board and Related Program, Md. Code Ann.	DNR, Forestry and Wildlife (301) 974-7947	Recommends rivers, streams, and portions of rivers, streams, and tributaries for "Wild and Scenic" designation.
(d) Fish and Game Habitat Protection	Natural Resources Title 4 Fish and Fisheries; Subtitle 4 State Fish Refuges and Hatcheries in Tidal and Nontidal Water, Md. Code Ann.	DNR Non-tidal Fish (301) 974-3195 Tidal Fish (301) 974-2926	Establishes and maintains state fish refuges to protect and propagate fish.
	Natural Resources Title 10 Wildlife; Subtitle 8 State, Wildlife Management Areas and Hunting Grounds, Md. Code Ann.	DNR, Forestry and Wildlife, (301) 974-7947	Establishes and maintains wildlife refuges to protect and propagate wildlife.

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
State and private wetlands as defined at <u>Federal Manual for Identifying and Delineating Jurisdictional Wetlands.</u>	(1) Yes (2) No	Yes	Yes, Joint Federal/State Application submitted to DNR.	No
Nontidal wetlands within the state as defined in the <u>Federal Manual for Identifying and Delineating Jurisdictional Wetlands.</u>	(1) Yes (2) No COMAR 08.05.04.01(70)(a)	Yes	Yes, Joint Federal/State Application to DNR.	
Waters of the state (surface and ground water).	(1) No (2) No	Yes	Yes, Joint Federal/State Application to DNR.	No
Designated rivers, listed at 8-402.	(1) No (2) No	No	No	No
Designated state owned or federally owned water or land.	(1) No (2) No	No	Potential impacts are reviewed through the Joint Federal/ State Application process.	No
Designated state owned or federally owned water or land.	(1) No (2) No	No	Potential impacts are reviewed through the Joint Federal/ State Application process.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Maryland (cont'd.)			
(e) Environmental Impact (state NEPA)	Natural Resources, Title 1, DNR; Subtitle 3, Md. Environmental Policy Act, Md. Code Ann.	DNR, Water Resources Administration (301) 974-2251	Protects, preserves, and enhances the state's environment for the maintenance of the public health, welfare, and economy of the state.
(f) Coastal Zone Management	Natural Resources, Title 8, Water and Water Resources; Subtitle 11, Beach Erosion Control and Replenishment, Md. Code Ann.	DNR, Coastal Resources Div. Earl Bradley (301) 974-2784	Implements regulations to maintain Atlantic Coast beaches, the integrity and continuity of the dune system, provide for shore erosion and sediment control, storm protection and minimize structural interference with the littoral drift of sand and vegetation. Must certify federal compliance with the State Coastal Zone Management Plan.
	Natural Resources, Title 8, Water and Water Resources; Subtitle 18, Chesapeake Bay Critical Area Protection Program, Md. Code Ann.	Chesapeake Bay Critical Area Commission 275 West Street, Suite 320 Annapolis, MD 21401 (301) 974-2426	Reviews, approves or disapproves state and local government projects in the critical area which could have a detrimental impact.
(g) NPDES	Environment, Title 9, Water, Ice and Sanitary Facilities; Subtitle 2, Regulation by State, Md. Code Ann.	Dept. of the Environment, Hazardous and Solid Waste Management Administration, 2500 Broening Hwy. Baltimore, MD 21224 Horacio Tablada (301) 631-3323	Issues or revokes permits for industrial waste discharges into waters of the state, including aquaculture discharges.
II. (a) State Land Use and Land Use Planning	State Planning Md. State Finance and Procurement Code Ann. § 5-101 et seq.	Office of Planning	Principal agency for planning matters concerning resources and development of the state. Works with Regional Planning Councils and Interest Planning Conferences.
(b) Control of State Lands	Natural Resources, Title 5, Forests and Parks; Subtitle 10, Public Park Land, Md. Code Ann.	DNR (301) 974-2031	Preserves natural resources while promoting recreational use.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Statewide.	(1) No (2) No	No	No, projects must comply with the Act.	No
Atlantic coast beaches within the state.	(1) No (2) No	Federal Consistency certification is required.	Yes, potential impacts are reviewed through the Joint Federal/State Application Process.	Yes, projects approved by the Department.
Designated critical area defined in Md. Natural Resources Code Ann. § 8-1807.	(1) No (2) No	Federal Consistency certification is required.	Yes, potential impacts are reviewed through the Joint Federal/State Application Process.	No
Waters in the state.	(1) No (2) No	No, not construction phase.	Yes	No
Designated planning areas within the state.	(1) No (2) No	No	No	No
State owned and designated property.	(1) No (2) No	No	Potential impacts are reviewed through the Joint Federal/ State Application Process.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Maryland (cont'd.)			
(c) Floodplain Protection	Natural Resources, Title 8, Water and Water Resources; Subtitle 9A, Flood Control and Watershed Management, Md. Code Ann. COMAR 08.05.03	DNR, Water Resources Administration Flood Management Div. (301) 974-3825	Implements Flood Management Plan.
(d) Levee Construction Permits	Natural Resources, Title 8, Water and Water Resources; Subtitle 8, Appropriation or Use of Waters, Reservoirs, and Dams, § 8-803.	DNR, Water Resources Administration Dam Safety Div. (301) 974-2101	Issues or denies permits for con- struction, or repair of any reservoir, or dam within the state.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Within the State's "flood hazard area" which includes tidal and nontidal inundation based on a 100-year flood event.	(1) No (2) No	No	No	No
Any proposed site within the state.	(1) No (2) No	Yes	Written Application required; forms can be obtained from the Dam Safety Div.	Yes, 8-803(b)

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency.
SOUTH CAROLINA			
I. (a) Wetlands Protection	South Carolina Coastal Management Act SC Code Ann. 48-39-10 et seq. SC Reg. 30-1 et seq.	SC Coastal Council (SCCC); Planning Div. 4130 Faber Pl. Charleston, SC 29405 Steve Snyder or Richard Chinnis (803) 744-5838	Issues or revokes permits and/or federal consistency certifications for dredge and fill activities in or affecting "critical areas."
(b) Water Quality	Pollution Control Act SC Code Ann. 48-1-10 et seq. SC Reg. 61-101.	Dept. of Health and Environmental Control, Bureau of Water Pollution Control 2600 Bull St. Columbia, SC 29201 Sally Knowles or Chester Sansbury (803) 734-5311	Issues 401 water quality certification.
(c) Wild and Scenic Rivers	South Carolina Scenic Rivers Act of 1989 SC Code Ann. § 49-29-10 et seq.	SC Water Resources Commission 1201 Main St., Suite 1100 Columbia, SC 29201 Barry Beasley (803) 737-0800	Establishes eligibility criteria for river designation and formulates water and related land use plans for designated areas. Enforcement responsibilities are shared with the SC Wildlife and Marine Resources Dept. and State Forestry Commission.
(d) Fish and Game Habitat Protection	Wildlife and Marine Resources Dept., Title 50, Chs. 1 and 3 SC Code Ann.	Dept. of Wildlife and Marine Resources P.O. Box 167 Columbia, SC 29240 Robert E. Duncan (803) 762-5014 or 795-6550	Reviews proposed projects for potential impact to fish and game and recommends mitigating alternatives.
(e) Environmental Impact (state NEPA)	No pertinent legislation.		
(f) Coastal Zone Management	South Carolina Coastal Management Act SC Code Ann. 48-39-10 et seq.	SCCC, Planning Division Steve Snyder (803) 744-5838	Issues and denies permits for projects within the "critical area." Federal agency projects must be reviewed for consistency determinations, in lieu of permits, certifying the activity is consistent with the state's Coastal Zone Management Plan.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
SC "critical areas" include tidelands, coastal waters, beaches and primary oceanfronts and dunes seaward (saltwater wetlands included).	(1) Yes; 48-39-130 (D)(4) (2) Yes; 48-39-130 (D)(4)	404 and Federal Consis- tency certifica- tion re- quired.	State participates in a joint application/public notice process with the Corps during which Corps forms are utilized. Applications are sent to the Corps which then sends a copy of the completed form to the state for review.	Yes, 48-39-130(D)(4)
Any project within the state which will discharge into navigable waters of the state as specified at 48-1-10(2).	(1) No (2) No	Yes	Same as above.	No
Designated rivers within the state, listed at 49-29-230. Presently, there are two: the Middle Saluda and the Little Pee Dee. A third has been proposed.	(1) No (2) No	No, most acts not allowed.	No	Mining for sand or gravel.
All wild birds, wild game and fish are property of the state.	(1) No (2) No	No	No, application process provides opportunity for input.	No
Projects within eight coastal counties as listed at 48-39- 10(B).	(1) Yes; 48-39-130 (D)(4) (2) Yes; 48-39-130 (D)(4)	Federal Consis- tency certifica- tion is required.	Same as I. (a).	Yes, 48-39-130(D)(4)

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administration agency:
South Carolina (cont'd.)			
(g) NPDES and/or Discharge Permits	South Carolina Pollution Control Act SC Code Ann. § 48-1-10 et seq.	Dept. of Health and Environmental Control, Bureau of Water Pollution Control 2600 Bull St. Columbia, SC 29201 NPDES Permits Henry Gibson (803) 734-5300	Issues or revokes permits for projects which discharge wastewater to surface surface waters of the state. Construction Permits Bart Rutter (803) 734-5300
II. (a) State Land Use and Land Use Planning	County Planning Act SC Code Ann. 4-27-110 et seq.	County and/or Regional Planning Boards	Studies county resources and needs and prepares master plan for systematic future development of the area
(b)(1) Control of State Lands	South Carolina Coastal Management Act SC Code Ann. § 48-39-10 et seq.	SCCC Steve Snyder (803) 744-5838	Reviews all activities within the state's "critical area" and issues permits and/or federal consistency certifications.
(b)(2) Control of State Land	Water, Water Resources and Drainage SC Code Ann. § 49-1-10 et seq. SC Reg. 19-450	Budget and Control Board; and South Carolina Water Resources Commission 287 Meeting St. Charleston, SC 29401 Jeff Havel (803) 727-2088	Issues or denies Navigable Waters Permits.
(c) Floodplain Protection	South Carolina Water Resources Planning and Coordination Act SC Code Ann. § 49-3-10 et seq.	South Carolina Water Resources Commission 1201 Main St., Suite 1100 Columbia, SC 29201 Billy McKinnon (803) 737-0800	Assists regional, metropolitan and local government agencies responsible for water resource planning, including flood damage control or prevention through zoning.
(d) Levee Construction Permits	Dams and Reservoirs Safety Act SC Code Ann. § 49-11-110	State Lands Resources Conservation Commission; Dams and Reservoir Safety Div. 2221 Devine, Suite 222 Columbia, SC 29205 George D. Ballentine (803) 734-9100	Inspects and certifies safety compliance of dams.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Any project which discharges into the waters of the state.	(1) No (2) No	Yes, two permits.	Yes, there are two required permits. (1) NPDES which must be approved before construction of the impound- ment; and (2) Construc- tion Permit which will not be issued until after NPDES discharge permit has been approved.	No
All land within the jurisdiction of the governing body.	(1) No (2) No	No	No	No
Activity within waters of the state's "critical area."	(1) Yes (2) No	No	State review is initiated by submission of Corps application to SCCC.	Yes, 48-130-130(D)(4)
Any activity which involves the use of any land below the mean high water line, or use of any submerged lands, or in, or on lands or waters subject to a public navigational servitude.	(1) Yes (2) No	Yes	The Corps must complete its own form for dredging activities and submit to the state for review.	Yes, SC Reg. 19-450.3
Water resources within the state.	(1) No (2) No	No	No	No
Dams within the state.	(1) No (2) No	Yes*	Yes	Yes
*If dam is to be built on private land and meets one of the following, a Dam Safety Permit is required: (1) If volume of water is 50 acre feet or more; or (2) The height of the dam is 25 feet or more.				

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
TEXAS			
I.(a) Wetlands Protection	Coastal Wetland Acquisition Act Texas Nat. Res. Code § 33.231 to 33.238 TAC 15.51-.54	1) Parks and Wildlife Dept. is "acquiring" agency 2) General Land Office is "certifying" agency	Accept and acquire, by purchase or condemnation, certified coastal wetlands, in order to protect and preserve productivity and integrity.
(b) Water Quality	Texas Water Quality Act Texas Water Code § 26.023 and Title 31 TAC § 279	Texas Water Commission (TWC), Water Quality Div. P.O. Box 13087 Capitol Station Austin, TX 78711-3087 Applications Unit (512) 463-8238	Issues or denies section 401 water quality certification which states whether the proposed activity would violate the state's water quality standards; § 26.001 defines pollutant to include dredge spoil.
(c) Wild and Scenic Rivers	No pertinent legislation.	Texas Parks and Wildlife Dept. 4200 Smith School Rd. Austin, TX 78744 Resource Protection Branch (502) 389-4800	
(d) Fish and Game Habitat Protection	Wildlife Management Areas Texas Parks and Wildlife Code § 81.401 et seq.	Texas Parks and Wildlife Dept.	Authority to acquire, maintain, and operate wildlife management areas, as well as managing wildlife and fish found within designated preserves.
(e) Environmental Impact (state NEPA)	No pertinent legislation.		
(f) Coastal Zone Management	Coastal Public Lands Management Act of 1973 Texas Natural Resources Code 33.001 et seq.	Texas General Land Office 1700 North Congress Dr. Austin, TX 78701 Sally Davenport (512) 463-5225	Texas does not have a federally approved Coastal Zone Management Plan. Agency's regulatory responsibility includes issuing permits, leases, easements for uses within the coastal zone.
(g) NPDES and/or Discharge Permits	Texas Water Quality Act Texas Water Code § 26.121 and § 11.121, Title 31 TAC § 307	Texas Water Commission, Water Quality Division (512) 463-8238	Issues discharge permits for discharge of wastes into or adjacent to waters of the state. Texas is not an EPA NPDES delegated state. See Chap.3, Part A.

(D) Physical or geographic area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
Coastal wetlands, as defined in § 33.233(3).	(1) No (2) No	n/a	Corps should be sure DMCA proposed site is not on the Land Office's list of certified wetlands or on the Parks and Wildlife Department's priority acquisitions list.	Yes; § 33.235 bars condemnation of land used exclusively for "farming or ranching."
Same as § 404 of federal Clean Water Act.	(1) No (2) No	Yes	Procedures coordination with section 404 process. (Review and coordination processes explained in § 279 of TAC Title 31.)	No
Designated management areas.	(1) No (2) No	No	No	No
All or any portion of the state's "coastal public land" as defined at 33.004(11).	(1) No (2) No	Yes	Applications should be obtained from the Texas General Land Office.	No
Waters of the state and adjacent to state waters as defined at Tex. Water Code, § 26.121(5).	(1) No (2) No	Yes	A preapplication letter to the Water Quality Div. is recommended. Discharge permit application review and coordination procedures described in 31 TAC, § 305.	No

	(A)	(B)	(C)
Category of state law:	Title of state law and citation:	Agency responsible for its administration:	Basic authorities of administrative agency:
Texas (cont'd.)			
II.(a) State Land Use and Land Use Planning	Regional Planning Commission Local Government Code Title 12, Planning and Development, Subtitle C, Ch. 391	Regional Planning Commission	Authority to establish "development plans" to guide development in a region which would promote economy and efficiency.
(b)(1) Control of State Lands	Coastal Public Lands Management Act of 1973 Texas Natural Resources Code, § 33.001 et seq. 31 TAC 15.43	Texas General Land Office Sally Davenport (512) 463-5059	Responsible for management and regulation of the use of state owned lands and submerged lands. Regulatory responsibilities include issuing leases or easements for public use, § 33.103.
(b)(2) Control of State Lands	Disposition of the Public Domain, Easements Texas Natural Resources Code, § 51.291	Texas General Land Office Sally Davenport (512) 463-5059	Grants easements for right-of-ways for pipelines of any nature which cross state lands listed at 51.129.
(b)(3) Control of State Lands	Marl, Sand, Gravel, Shell and Mudshell Texas Parks and Wildlife Code, § 86.001	Texas Parks and Wildlife Dept. Resource Protection Branch (512) 389-4864	Issues permits for the removal of materials from state water bottoms.
(c) Floodplain Protection	Texas Water Code, § 16.236	Cities and County governments participating in the Federal Flood Insurance Program plus the Floodplain Administrator. For governments not participating, the Texas Water Commission is the responsible agency. Floodplain Management Unit (512) 371-6317	Approves plans for maintenance, construction and improvement to levees and dams within the floodplain.
(d) Levee Construction Permits	Texas Water Code, § 11.121; Subchapter D, Permits to Use State Water TAC Ch. 299	Texas Water Commission; Water Rights and Uses Div. Surface Water Section Bill Crowley (512) 371-6379 Dam and Floodplain Safety Section David Stolpa (512) 371-6301	Issues or denies Water Rights Permits. Determines whether proposed construction plans for dams or levees are in compliance with TAC Ch. 299.

(D) Physical or geographical area of authority:	(E) (1) Disposal of dredged material mentioned? (2) CE exempt?	(F) Permit needed?	(G) Specific permit procedures:	(H) Allows waivers or variances?
A designated region, usually a combination of municipal- ities and counties.	(1) No (2) No	No	No	No
Submerged water bottoms of the state and other state owned land as defined at 3.004.	(1) No, however, reference "waivers." (2) Yes, navigational servitude.	Not for Corps.	Yes, applications should be obtained from the Texas General Land Office, 33.101-.102	Yes, navigational servitude.
State land listed at 51.129.	(1) No (2) Yes, navigational servitude.	Not for Corps.	Yes, applications should be obtained from the Texas General Land Office.	No
State water bottoms as defined as property of the state.	(1) No (2) Yes, navigational servitude.	Not for Corps.	Yes, 86.003	Yes, navigational servitude.
Cities and counties within the 100-year floodplain.	(1) No (2) No	Yes	Yes, a permit requirement determination should be requested from the Texas Water Commission. The request should include a pro- ject description, site map, conceptual plans and drawings.	No
Any project within the state which proposes construction of any work designed for the storage, taking, or diversion of water.	(1) No (2) No	Yes	Yes, a Water Rights Permit is required if water is to be with- drawn from a state waterway. Projects Concept Plans must be submitted with application so the Dam Safety Section can evaluate. TAC Ch. 299 must be complied with even if water is not withdrawn from a state waterway.	No

APPENDIX B: SAMPLE EASEMENTS FROM LANDOWNERS TO
LOCAL SPONSORS OR THE CORPS OF ENGINEERS

**1. SAMPLE DREDGED MATERIAL DISPOSAL EASEMENT:
BALTIMORE DISTRICT**

This easement deed made this ____ day of _____, 19__, between _____,
Grantor, and _____ County, a political subdivision of the _____, Grantee.

Witnesseth:

WHEREAS, construction _____ of the _____;

WHEREAS, such authorization is subject to the condition that local interests furnish
free of cost to the United States necessary rights-of-way and suitable dredged material
disposal easements for the _____, and hold and save the United States free
from damages due to construction _____, except damages due to the fault or
negligence of the Government or its contractors; and

WHEREAS, by agreement dated _____, _____ County agreed to
furnish, free of cost to the United States, necessary rights-of-way and suitable dredged
material disposal areas _____;

WHEREAS, the Grantor is the owner in fee simple of a tract of land situated in the
_____ Election District, _____ County, _____, BEING all
that tract or parcel of land which by a Deed dated _____ and recorded among the
land records of _____ County, _____, at Deed Book Vol. _____, Page _____, was
conveyed by _____ to the said Grantor;

AND WHEREAS, the Grantee desires to acquire an interest in the said tract of land
so the United States might use a portion of it for the purpose of depositing dredged material
from dredging operations and other uses incidental thereto which said portion of said above
described parcel of land is delineated on Schedule "A" attached hereto and made a part
hereof.

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), the receipt
of which is hereby acknowledged, paid by _____ County, a political subdivision
of the _____, and the benefit to the Grantor from the _____,

the sufficiency of which is hereby expressly acknowledged, the Grantor does hereby give, grant, and convey unto said Grantee, its successors and assigns, a right and privilege, of a period beginning with the date of this instrument and terminating in _____ years, to enter upon, occupy and use part of the land described above as delineated in Schedule "A" or any portion thereof for the purpose of depositing dredged material and other dredged material excavated as a result of the _____.

RESERVING HOWEVER, to the Grantor all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby conveyed to the Grantee; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Grantee shall have the right to clear and keep clear all trees, or undergrowth and other obstruction from the herein granted easement, and the Grantor agrees not to do any filling, upgrading, or other activity during stated period on the herin granted easement that will interfere with the normal operation and maintenance of said dredged material disposal area. It is agreed that the within named consideration is in full payment for any timber cut or to be cut in the deposit of dredged material and earth, or in the operation and/or maintenance of said dredged material disposal area.

TO HAVE AND TO HOLD FOR A PERIOD OF _____ YEARS, unto said Grantee, its successors and assigns, the rights herein granted.

THE GRANTOR does hereby expressly and fully release the United States of America, its officers, agents, servants and contractors, from liability for any and all damages done or caused to be done and from any claim or demand whatsoever or injuries suffered by or done to the said premises by reason of the deposit of such dredged material or other material, excepting damages or injuries due to the fault or negligence of the Government or its contractors.

AND THE SAID Grantor will warrant and defend, for the period of the easement the right and title to the portion of the above described property which is delineated or further

described in Schedule "A" unto the said Grantee against the claims of all persons whomsoever.

This easement is being acquired for use by the United States Army Corps of Engineers, Baltimore District, Baltimore, Maryland.

IN WITNESS WHEREOF, the Grantor has hereunto set hand and seal, the ____ day of _____, 19__.

_____(SEAL)

_____(SEAL)

COUNTY OF _____)

) ss:

STATE OF MARYLAND)

I hereby certify, that on this ____ day of _____ in the year ____ before the subscribed _____ personally appeared _____ and acknowledged the foregoing deed to be his act.

(NOTARY)

(SEAL)

NOTARY PUBLIC

My Commission Expires _____.

2. LANGUAGE FROM SAMPLE DREDGED MATERIAL DISPOSAL EASEMENT: MOBILE DISTRICT

A perpetual and assignable right and easement to construct, operate and maintain a dredged material disposal area on (the land described in Schedule "A") (Tracts Nos. _____, _____ and _____) including the right to construct and maintain dikes and buffer zone; to deposit dredged material and accomplish any alterations of contours on the land as necessary in connection with such work; to clear, borrow, excavate and remove soil, dirt, and other materials including dredged material from the land; title to and the continuing right to grow, plant, replant, cut, fell, harvest and remove all timber, trees and other vegetation thereon; to remove and dispose of any and all buildings, and/or other obstructions therefrom; and for such other purposes as may be required in connection with said works within the limits of subject tract; provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines; subject to all interest in and to oil, gas and other minerals in, on and under the herein described property outstanding in third parties, including leases, assignments and mortgages thereof; reserving, however, to the landowner, his heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purpose authorized by Congress or abridging the rights and easement hereby acquired.

**3. SAMPLE DREDGED MATERIAL DISPOSAL EASEMENT:
NEW ORLEANS DISTRICT**

FROM: _____
TO: _____

STATE OF LOUISIANA
PARISH OF _____

The undersigned hereby grant(s) to the _____ Parish Council, and its assigns, a temporary easement and right-of-way in, on, over and across the hereinafter described land, for a period not to exceed _____, beginning with the date possession of the land is granted to the Lafourche _____, for use by the _____, and its assigns, as a dredged material disposal area, including the right to enter upon the land and deposit dredged material thereon, and the right to lay or place disposal pipelines, with full rights of ingress and egress on the land, and the right to perform any other work necessary and incident to the _____ Waterway, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highway, public utilities, railroads and pipelines.

The consideration for this easement is the increased value to adjacent lands of the undersigned, the added convenience in use of the improved waterway, and other good and valuable considerations.

The land in, on and to which this easement applies is described as follows:

[Insert legal description of property]

The undersigned hereby waive(s) and release(s) the _____ and its assigns from any and all claims for damages arising from the activity of the Council, its officers, contractors, agents, employees, representatives or assigns on said land in the reasonable exercise of this easement.

This easement includes the right of ingress and egress on adjacent lands of the owner(s) not described above, provided such ingress and egress is necessary and not otherwise conveniently available to the grantee and its assigns.

All tools, equipment, improvements or other properties placed upon the land by the council or its assigns during the exercise of this easement shall remain the property of the council or its assigns and may be removed by the council or its assigns at any time within a reasonable period after completion of the work or after the expiration of this easement.

WITNESS MY HAND AND SEAL this ____ day of _____ 19____.
WITNESSES:

NOTARY PUBLIC

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE April 1993		3. REPORT TYPE AND DATES COVERED Final report
4. TITLE AND SUBTITLE Legal and Institutional Constraints on Aquaculture in Dredged Material Containment Areas			5. FUNDING NUMBERS National Sea Grant Program No. NA90 AA-D-SG11	
6. AUTHOR(S) Robertshaw, Sylvia; Love, Donald; McLaughlin, Richard J.				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) University of Mississippi Law Center, Oxford, MS 38655 Louisiana State University, Paul M. Hebert Law Center, Baton Rouge, LA 70803			8. PERFORMING ORGANIZATION REPORT NUMBER Technical Report EL-93-7	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Corps of Engineers Washington, DC 20314-1000; U.S. Army Engineer Waterways Experiment Station Environmental Laboratory 3909 Halls Ferry Rd., Vicksburg, MS			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES Available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) High land and construction costs hinder development of pond-based aquaculture in the United States. A partnership with the U.S. Army Corps of Engineers may reduce these constraints. The dredged material containment areas (DMCAs) operated by the Corps are structurally similar to aquaculture ponds and typically are used only once every 3-10 years. With the Corps and navigational interests contributing to dike construction and land acquisition, the costs of aquaculture may be reduced while providing the Corps with the additional disposal areas needed to maintain our nation's waterways. The Containment Area Aquaculture Program (CAAP) was established to investigate the feasibility of DMCA aquaculture from biological, economic, engineering, and legal perspectives. The technical feasibility of DMCA was demonstrated in 42- and 47-ha DMCAs near Brownsville, TX. Pumps, filters, and drainage structures were added to these DMCAs to accommodate aquaculture operations and a 1.6-ha nursery pond was constructed. During a three-year period, four crops of penaeid shrimp were raised. (Continued)				
14. SUBJECT TERMS Aquaculture Legal Considerations Regulations			15. NUMBER OF PAGES 202	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	

13. (Concluded)

Production rates averaged 670 kg/ha of whole shrimp (range: 338 to 1143 kg/ha) with 51% survival (range: 23% to 74%). Total production for the four crops was 116,088 kg of whole shrimp (71,878 kg tails) and was sold for over \$475,000.

This report gives a general overview of the laws and regulations that may apply to the creation and operation of a containment area aquaculture facility (CAAF). The specific steps needed to ensure compliance with federal and state laws will ultimately depend on geographic location. Although a CAAF will have a slightly different design than a typical DMCA, the substantive permitting steps will be very similar. At the federal level, the principal laws that apply are Sections 404 and 401 of the Clean Water Act, the National Environmental Policy Act, and the Coastal Zone Management Act. State regulations and laws potentially applicable to a CAAF, including substantive standards, the permit process, and agencies involved, are reviewed on a state-by-state basis for Alabama, Florida, Louisiana, Maryland, South Carolina, and Texas. Information is given for eleven categories of state regulations: wetland protection, water quality, wild and scenic rivers, fish and game habitat, environmental impact, coastal zone management, National Pollution Discharge Elimination Systems (NPDES), land use and planning, public lands, floodplain protection, and levee construction.

The primary reason for identifying potential legal issues is for planning purposes. To the extent possible, participants in a CAAF should try to address anticipated areas of concern in the legal documents and agreements that set up a facility. The importance of site selection cannot be overemphasized. The legal implications of decisions about chemical suitability probably constitute the most important factor in the potential success of a CAAF. Corps personnel must be careful not to prematurely deem a site "suitable for aquaculture" before sufficient testing has taken place. Such care is necessary to avoid claims that the Corps misrepresented the potential benefits of participation in a CAAF. There may be contractual liability as well as negligence liability issues. The "joint venture" theory of liability is discussed (a category of vicarious responsibility, i.e., holding someone else liable for an act committed by another).

This report also provides a user guide for Corps Districts, local sponsors, landowners, and aquaculturists who are contemplating becoming involved in a CAAF. As examples, four likely situations in which a CAAF would be feasible are discussed: (1) where the underlying real estate is privately owned, (2) where the underlying real estate is owned by the state or the local sponsor, (3) where the underlying real estate is owned by the federal government and administered by the Corps, and (4) where the underlying real estate is owned by the federal government and administered by a federal agency other than the Corps. Included is a checklist of the issues that should be discussed during negotiations and/or included in the documents. Suggestions are given for the types of documents that should be generated to establish the legal relationships among the various parties to the operation.