Science for Solutions

NOAA COASTAL OCEAN PROGRAM
Decision Analysis Series No. 2

TECHNOLOGY AND SUCCESS IN RESTORATION, CREATION, AND ENHANCEMENT OF *SPARTINA ALTERNIFLORA* MARSHES IN THE UNITED STATES

Volume 2 -- Inventory and Human Resources Directory

Geoffrey A. Matthews
Thomas J. Minello

August 1994

QK495
.G74
M38
1994
V.2,C.2

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Coastal Ocean Office

The Decision Analysis Series has been established by NOAA's Coastal Ocean Program (COP) to present documents for coastal resource decision makers which contain analytical treatments of major issues or topics. The issues, topics, and principal investigators have been selected through an extensive peer review process. To learn more about the COP or the Decision Analysis Series, please write:

NOAA
Coastal Ocean Office
1315 East West Highway, Sta. 15140
Silver Spring, MD 20910

phone: 301-713-3338
fax: 301-713-4044

Science for Solutions

NOAA COASTAL OCEAN PROGRAM
Decision Analysis Series No. 2

TECHNOLOGY AND SUCCESS IN RESTORATION, CREATION, AND ENHANCEMENT OF *SPARTINA ALTERNIFLORA* MARSHES IN THE UNITED STATES

Volume 2 -- Inventory and Human Resources Directory

Geoffrey A. Matthews
Thomas J. Minello

NOAA National Marine Fisheries Service
Southeast Fisheries Science Center
Galveston Laboratory
4700 Avenue U
Galveston, TX 77551

August 1994

MAR 14 1997

Property of CSC Library

U.S. DEPARTMENT OF COMMERCE
Ronald H. Brown, Secretary
National Oceanic and Atmospheric Administration
D. James Baker, Under Secretary
Coastal Ocean Office
Donald Scavia, Director

US Department of Commerce
NOAA Coastal Services Center Library
2234 South Hobson Avenue
Charleston, SC 29405-2413

This publication should be cited as:

Matthews, Geoffrey A. and Thomas J. Minello. 1994. Technology and Success in Restoration, Creation, and Enhancement of *Spartina alterniflora* Marshes in the United States. Vol. 2 – Inventory and Human Resources Directory.. NOAA Coastal Ocean Program Decision Analysis Series No. 2. NOAA Coastal Ocean Office, Silver Spring, MD.

This publication does not constitute an endorsement of any commercial product or intend to be an opinion beyond scientific or other results obtained by the National Oceanic and Atmospheric Administration (NOAA). No reference shall be made to NOAA, or this publication furnished by NOAA, in any advertising or sales promotion which would indicate or imply that NOAA recommends or endorses any proprietary product mentioned herein, or which has as its purpose an interest to cause directly or indirectly the advertised product to be used or purchased because of this publication.

Note to Readers

The NOAA Coastal Ocean Program (COP) provides a focal point through which the agency, together with other organizations with responsibilities for the coastal environment and its resources, can make significant strides toward finding solutions to critical problems. By working together toward these solutions, we can ensure the sustainability of these coastal resources and allow for compatible economic development that will enhance the well-being of the Nation now and in future generations. The goals of the program parallel those of the NOAA Strategic Plan for 1995-2005.

A specific objective of COP is to provide the highest quality scientific information to coastal managers in time for critical decision making and in a format useful for these decisions. To help achieve this, COP inaugurated a program of developing documents that would synthesize information on issues that were of high priority to coastal managers. To develop such documents, a three-step process was used: 1) to compile a list of critical topics in the coastal ocean through a survey of coastal resource managers and to prioritze and select those suitable for the document series through the use of a panel of multidisciplinary technical experts; 2) to solicit proposals to do research on these topics and select principal investigators through a rigorous peer-review process; and 3) to develop peer-reviewed documents based on the winning proposals.

Seven topics and associated principal investigators were selected in the initial round. *Technology and Success in Restoration, Creation, and Enhancement of Spartina alterniflora Marshes in the United States* by Geoffrey A. Matthews and Thomas J. Minello of the NOAA National Marine Fisheries Service's Galveston Laboratory is the second document in this Decision Analysis Series to be published and is presented in two volumes. Information on Decision Analysis Series No. 1 is shown on the inside back cover. Other volumes will be published over the next two years on the following topics: seagrass restoration technology, coastal watershed restoration, restoring streams and anadromous fish habitat affected by logging, eutrophication and phytoplankton blooms, and management of cumulative coastal environmental impacts.

As with all of its products, COP is very interested in ascertaining the utility of the Decision Analysis Series particularly in regard to its application to the management decision process. Therefore, we encourage you to write, fax, call, or Internet us with your comments. Please be assured that we will appreciate these comments, either positive or negative, and that they will help us direct our future efforts. Our address and telephone and fax numbers are on the inside front cover. My Internet address is DSCAVIA@HQ.NOAA.GOV.

Donald Scavia
Director
NOAA Coastal Ocean Program

Foreword

Coastal wetlands are important habitats for many estuarine-dependent fishery species, and the productivity of these fisheries may well depend upon the health of wetland ecosystems. The low elevation wetlands on the Atlantic and Gulf of Mexico coasts of the United States are generally dominated by smooth cordgrass, *Spartina alterniflora*, and these salt marshes have been identified as valuable nursery habitats for many fishes and crustaceans. Coastal development, sea level rise, and land subsidence, however, have resulted in extensive losses of *S. alterniflora* habitat in the United States. Efforts to reduce the rate of wetland loss will likely require a continuation and expansion of programs to restore and create salt marshes in regions of deteriorating coastal wetlands. These restoration projects frequently involve establishment of marsh vegetation on graded-down uplands or on dredged material. Although many of the early efforts have failed, the technology for successfully establishing salt marsh vegetation by seeding and transplanting have now been developed for a variety of coastal conditions.

Salt marshes have long been built to reduce shoreline erosion and stabilize dredged material deposits. These projects have not inherently attempted to establish complete functional equivalence with natural marshes, and physically establishing the macrophytic vegetation has been the criteria used for determining success. When the goal of salt marsh creation becomes the replacement of a natural marsh, however, the entire suite of marsh functions must be considered. Replacing or creating vegetative cover is the first step in creating a functional salt marsh. Establishment of habitat functions such as providing a supportive food web, protection from predators, and reproductive sites for estuarine animals apparently requires more time than the establishment of macrophytes alone. Under some conditions, these habitat functions may never fully develop, and food webs of created salt marshes may never support fisheries organisms and other wildlife to the same extent as in natural marshes. The evidence for retarded functional development of created salt marshes has raised serious questions about the relative value of these habitats. Information on the establishment of salt marsh functions other than substrate stabilization is also more difficult to obtain and requires an understanding of how natural salt marsh systems function.

Our objectives in developing this database of created *Spartina alterniflora* marshes were: 1) to form a register of the marshes and estimate the number and

location of these marshes, 2) to determine how many of these marshes have been monitored for functional success and animal utilization, 3) to develop an inexpensive and easy-to-use data base and entry system to track future restoration/creation activities, 4) to promote via this database a greater awareness of the impacts of altering coastal wetlands and the need for full ecologically functional replacement.

Companion products from our Coastal Ocean Program project may also be of some value to users of this Inventory. These include a Directory of Human Resources in this volume and an Annotated Bibliography which appears in Volume 1. The information in these companion products was used extensively in creating this salt marsh inventory.

VOLUME 2

SECTION II -- INVENTORY OF RESTORED, CREATED, AND ENHANCED *SPARTINA ALTERNIFLORA* MARSHES IN THE UNITED STATES

SECTION III -- DIRECTORY OF HUMAN RESOURCES

SECTION II

AN INVENTORY OF RESTORED, CREATED, AND ENHANCED *SPARTINA ALTERNIFLORA* MARSHES IN THE UNITED STATES

Table of Contents

Section II -- Inventory

FOREWORD iii

DATABASE 1
- Data collection and limitations 1
- Database structure 2

PRIMARY MARSHES 5
- Connecticut 5
- Delaware 10
- Florida 17
- Maine 104
- Maryland 107
- Massachusetts 127
- New Jersey 128
- New York 145
- North Carolina 147
- South Carolina 148
- Texas 149
- Virginia 229

MARSHES WITH MINIMAL INFORMATION . 237
- Alabama 237
- Connecticut 238
- Delaware 238
- Florida 239
- Georgia 247
- Louisiana 248
- Maine 257
- Maryland 257
- Massachusetts 283
- Mississippi 283
- New Hampshire 283
- New Jersey 284
- New York 285
- North Carolina 286
- Rhode Island 288
- South Carolina 288

Database

Data collection and limitations

In the development of this inventory, we utilized four major sources of information on restored and created *Spartina alterniflora* marshes, including 1) contractors who build the marshes, 2) research personnel who study marshes, 3) state agencies that monitor wetlands and marsh mitigation, and 4) federal agencies that monitor marshes or marsh organisms. We contacted contractors throughout the United States for information about restored, enhanced, or created *Spartina alterniflora* marshes that they had a role in building. We also reviewed information on created marshes from publications, reports, conference presentations, and even assorted notes obtained from consultants, contractors, and other research personnel working in this field. State environmental and fisheries agencies were consulted for their records about man-made salt marshes. We also contacted the offices of the U.S. Army Corps of Engineers (COE), Soil Conservation Service (SCS), U.S. Fish and Wildlife Service, and National Marine Fisheries Service (NMFS) for information about man-made *Spartina alterniflora* marshes in their respective areas of the coast.

For the most part, the people we contacted in the field of restoration science were receptive toward our requests and provided the available information. Often, however, data on salt marsh construction projects were never originally recorded, were incomplete or in some inappropriate format, were not readily available with a reasonable search effort, or were not entered into electronic files. The permitting process of the COE and the permit review records of the National Marine Fisheries Service Southeast Regional offices provided information on numerous marsh creation projects. Some projects that were issued COE permits, however, were not located, and it is unclear whether these marshes were failures or had never been constructed. In addition, we obtained some information from design or initial work plans for projects, and these plans may not always have been identical to the characteristics of the marsh actually planted.

Information on created *Spartina alterniflora* marshes on the West Coast was not recorded. A few *Spartina alterniflora* marshes were planted in West Coast estuaries several decades ago, but this species is no longer used in restoration/creation projects. *Spartina alterniflora* is considered an invasive exotic species on the West

coast, where it has spread rapidly, often out competing the native species, *Spartina foliosa*.

This inventory is intended to be dynamic. Over time, we anticipate that users of the inventory will identify new marshes and provide additional information on included marshes. We would like to encourage this type of input, and we hope that users will help make the inventory a more valuable resource for everyone working in the field of salt marsh creation and restoration. Therefore, corrections and additions are solicited and can be sent to the authors at the address on the cover page.

Database structure

During the course of our one year investigation we identified 787 marshes that were either planned, created, restored, or enhanced along coastal bays and estuaries from Maine to Texas. Each marsh was assigned a unique identification number when the data were entered into the electronic data file. The records are sorted alphabetically first by state, second by county, and third by bay in which the marshes were located. The database was constructed using Microsoft's Excel software and is also available on diskette as an Excel file. Excel was chosen because it was available for both IBM (and compatibles) and Macintosh computers and is fairly easy to use. All 787 marshes are included in the electronic data file.

Printed output was generated from the Excel database file and includes all marshes, but marsh information was presented in two forms to save space. Primary Marshes were identified on the basis of the information content in the database; the exact location of these marshes is known (INFO RANK of 3, 4, 5 and RTE, see below). All information available in the database is listed for each Primary Marsh. For marshes with minimal information (INFO RANK of 1 and 2), only a brief description is given.

The database has 22 variables to identify and characterize each marsh. These variables are:

Variables	Specifications
1) **ID**	A unique reference number to identify the marsh; given when the data were entered into the inventory database.
2) **INFO RANK**	Each planted marsh was ranked from 1-5 based on the amount of available information. **1**=A COE permit was granted that required a marsh be created. It is unknown if the marsh was created. **2**=A marsh was planted. The age and general location are known, but the exact location of the planting is unknown. **3**=A marsh was planted and its specific location is known, but no assessments of its growth and functions were made. **4**=A marsh was planted and was evaluated as to attainment of a 70% vegetative cover within two years after planting. **5**=A marsh was planted, was successfully established, and was assessed for its utilization by animals. An **RTE** (restored tidal exchange) in this space indicates an area was opened to tidal exchange and a *Spartina alterniflora* marsh became established, though it was not planted.
3) **STATE**	State where the marsh is located.
4) **COUNTY**	County or parish where the marsh is located.
5) **BAY**	The body of water where the marsh is located; include bay, sub-bay, cove, river and creek when applicable.
6) **ORIGINATOR**	Who paid to have the marsh built. Includes name, address and telephone if available.
7) **COE NO**	U.S. Army Corps of Engineers permit number for a mitigation marsh.
8) **PERMIT DATE**	Month and year of the permit.
9) **LOCATION**	Directions to the actual site with identifying features of the marsh.

10) LAT	Degree, minutes, and seconds where the marsh is located.
11) LONG	Degree, minutes, and seconds where the marsh is located.
12) DATE PLANTED	The month and year when the marsh planting was completed.
13) ACRES	Area of the marsh.
14) HECTARES	Area of the marsh.
15) SOURCE PLANTING	Who supplied the information about the planting; includes name, address and telephone number when available, or a literature citation (intext style).
16) SOURCE ASSESS	Name, address and telephone number of the person when available; or a literature citation (intext style).
17) REFS	Literature citation(s) or person who knows about the marsh (address and telephone number if known).
18) OTHER SPP PLANTED	List species that were planted along with the *Spartina alterniflora*..
19) COVER	Visual estimation of the area of the marsh covered by *S. alterniflora,* and the month and year when the percentage was determined.
20) ANIMAL USE	Yes or no. If yes, include reference. and which animals or animal groups were studied.
21) COM1	Include any pertinent information about how this marsh was constructed, or how successful it was.
22) COM2	Additional information that would not fit in the first comments box, or that you want separated. Marsh name generally included here.

Primary Marshes

Marsh Inventory No.: 661 **Information Rank (1-5):** RTE **State:** CT

Date Planted: 1979

Area Planted (1acre = 0.4047 ha): 52.611 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: CT **County:** Fairfield **Latitude (N):** 41 07' **Longitude (W):** 73 15'

Bay and sub-bays: Long Island Sound; Pine Creek

Directions to the site: Exit I-95 and exit 20, take Post Rd. Go south on S. Pine Creek Rd. to Oldfield or Old Dam Rd, go east.

Source of planting information: Mr. Thomas J. Steinke, Conservation Commission - Town of Fairfield, Independence Hall, 725 Old Post Road, Fairfield, CT 06430, (203) 256-3071

Source of subsequent assessment information: John Trautman, Biol. Dept. Fairfield Univ. (203) 268-5103

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- No *Spartina alterniflora* planted, but the area was opened to more tidal exchange and *S. alterniflora* became established.
-

Marsh Inventory No.: 660 **Information Rank (1-5):** RTE **State:** CT

Date Planted: 1974

Area Planted (1acre = 0.4047 ha)**:** 5.666 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: CT **County: Latitude (N): Longitude (W):**

Bay and sub-bays: Ash Creek

Directions to the site:

Source of planting information: Mr. Thomas J. Steinke, Conservation Commission - Town of Fairfield, Independence Hall, 725 Old Post Road, Fairfield, CT 06430, (203) 256-3071

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Phragmites*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- No *Spartina alterniflora* planted, but the area was opened to more tidal exchange and *S. alterniflora* became established.
-

Marsh Inventory No.: 663 **Information Rank (1-5):** RTE **State:** CT

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 60.705 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: CT **County: Latitude (N): Longitude (W):**

Bay and sub-bays: Great Creek

Directions to the site: Milford, CT; in the state park.

Source of planting information: Mr. Thomas J. Steinke, Conservation Commission - Town of Fairfield, Independence Hall, 725 Old Post Road, Fairfield, CT 06430, (203) 256-3071

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- No *Spartina alterniflora* planted, but the area was opened to more tidal exchange and *S. alterniflora* became established.

Marsh Inventory No.: 662 **Information Rank (1-5):** RTE **State:** CT

Date Planted: 1982

Area Planted (1acre = 0.4047 ha)**:** 12.141 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: CT **County: Latitude (N): Longitude (W):**

Bay and sub-bays: Sasco Creek

Directions to the site:

Source of planting information: Mr. Thomas J. Steinke, Conservation Commission - Town of Fairfield, Independence Hall, 725 Old Post Road, Fairfield, CT 06430, (203) 256-3071

Source of subsequent assessment information:

References or reports:

Other species planted in addition to ***Spartina alterniflora*** **:**

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 659 **Information Rank (1-5):** RTE **State:** CT

Date Planted: 1973

Area Planted (1acre = 0.4047 ha)**:** 6.475 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: CT **County: Latitude (N): Longitude (W):**

Bay and sub-bays: Turney Creek

Directions to the site:

Source of planting information: Mr. Thomas J. Steinke, Conservation Commission - Town of Fairfield, Independence Hall, 725 Old Post Road, Fairfield, CT 06430, (203) 256-3071

Source of subsequent assessment information:

References or reports:

Other species planted in addition to ***Spartina alterniflora*** **:** *Phragmites*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- No *Spartina alterniflora* planted.
-

Marsh Inventory No.: 346 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 05/01/92

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: US EPA Region III

Location of the marsh.

State: DE **County:** Kent **Latitude (N):** 39 07' 15" **Longitude (W):** 75 29' 30"

Bay and sub-bays: Delaware Bay; St. Jones River

Directions to the site: Take Rt. 13 north. Turn right onto Delaware Rt.10 northbound. Turn right onto Old Lebanon Road, after 500 ft. take the dirt road that bears left to the entrance of the landfill. The site is along the Wildcat Landfill on the St. Jones River.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: tidal pond, shoreline. Built by Environmental Concern, Inc. Interagency Agreement # DW96934592-0. This was an EPA hazardous waste site clean-up project.
- Marsh name: Wildcat Landfill.

Marsh Inventory No.: 313 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 07/01/85

Area Planted (1acre = 0.4047 ha): 1.214 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: DE DOT, Office of Administration

Location of the marsh.

State: DE **County:** New Castle **Latitude (N):** 39 05' 50" **Longitude (W):** 75 27' 23"

Bay and sub-bays: Delaware Bay; St. Jones River

Directions to the site: Along each side of US Hwy 113 for about 1 km N of the bridge at Barkers Landing.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: rectangular, long. Built by Environmental Concern, Inc. FHWA Project # F-10005(11). DEDOT Contract # 82-109-04.
- This was a restoration after removal of a temporary access road along the Rt. 113 bridge at the St. Joans River. Marsh name: DE Route 113.

Marsh Inventory No.: 333 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 05/01/83

Area Planted (1acre = 0.4047 ha): 0.243 hectares

COE Permit No.: NAPOP-R-83-0093-C **Date of COE Permit:** 1983

Originator or Applicant for permit: William K. McMahon, Rd. 2, Box 237, Lewes, DE 19958

Location of the marsh.

State: DE **County:** Sussex **Latitude (N):** 38 41' 35" **Longitude (W):** 75 04' 15"

Bay and sub-bays: Altantic Ocean; Rehobeth Bay; Head of Bay Cove.

Directions to the site: Bay shore infront of wooden bulkhead on property due W of Bayard Ave. at New Orleans St., Dewey Beach, DE.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Dewey Beach.

Marsh Inventory No.: 314 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 04/01/87

Area Planted (1acre = 0.4047 ha): 0.526 hectares

COE Permit No.: NAPOP-R-DV84-081 **Date of COE Permit:** 1984

Originator or Applicant for permit: Jerry Adkins real estate, Selbyville, DE 19975 (302) 436-5981.

Location of the marsh.

State: DE **County:** Sussex **Latitude (N):** 38 27' 38" **Longitude (W):** 75 05' 00"

Bay and sub-bays: Assawoman Bay; Fenwick Sound, Roy Creek

Directions to the site: Fenwick Island off East Stoney Run.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. This was a restoration required in a consent order.
- Marsh name: Keenwick Sound.

Marsh Inventory No.: 328 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 06/01/89

Area Planted (1acre = 0.4047 ha): 1.052 hectares

COE Permit No.: NAPOR-85-1107-1 **Date of COE Permit:** 1985

Originator or Applicant for permit: Gray Farms Partnership

Location of the marsh.

State: DE **County:** Sussex **Latitude (N):** 38 28' 22" **Longitude (W):** 75 06' 30"

Bay and sub-bays: Assawoman Bay; Fenwick Sound, Roy Creek

Directions to the site: Adjacent to a tributary of Roy Creek on a tract of land formerly known as Gray Farm, along the north side of Rt. 54 immediately west of Treasure Beach Campground, near Bayville, Sussex County, DE.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: tidal pond, shoreline. Built by Environmental Concern, Inc. DE Wetlands Permit # 5P-0710/84 and WE-1609/85.
- Marsh name: Mallard Lakes.

Marsh Inventory No.: 338 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 05/01/89

Area Planted (1acre = 0.4047 ha): 0.121 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bay Colony Marina

Location of the marsh.

State: DE **County:** Sussex **Latitude (N):** 38 34' 58" **Longitude (W):** 75 09' 25"

Bay and sub-bays: Atlantic Ocean; Indian River Bay

Directions to the site: Along the sides of a small inlet and basin just 0.5 km SW of Grays Point on the S shore of Indian River Bay about 2 km N of Blackwater Village.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc.
- Marsh name: Bay Colony.

Marsh Inventory No.: 298 **Information Rank (1-5):** 3 **State:** DE

Date Planted: 06/01/81

Area Planted (1acre = 0.4047 ha): 2.792 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: US Army COE, Philadelphia District

Location of the marsh.

State: DE **County:** Sussex **Latitude (N):** 38 37' 35" **Longitude (W):** 75 05' 30"

Bay and sub-bays: Atlantic Ocean; Indian River Bay.

Directions to the site: On bay-side of an island that is 1 km SE of Bluff Point, where Rehoboth Bay narrows to connect with Indian River Bay.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. COE Contract # DACW61-81-C-0062.
- Marsh name: Indian River.

Marsh Inventory No.: 748 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 09/01/93

Area Planted (1acre = 0.4047 ha): 1.670 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 11' **Longitude (W):** 80 37'

Bay and sub-bays: Banana River

Directions to the site: Satellite Beach; 4 miles N of Eau Gallie Causeway, entry road from South Patrick Drive. Perimeter marsh along E, W and S sides of old spoil island.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Paspalum vaginatum* and *Distichlis spicata* were planted on 2-ft centers; mangroves were planted on 4-ft centers.

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? No

General comments about the marsh:

- Freshly planted in Sept-Dec 1993; appears to be doing well, no mortality as of Feb 1994. *Spartina alterniflora* clumps were planted on 2-ft centers.
- Marsh name: Lansing Island

Marsh Inventory No.: 749 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 05/01/93

Area Planted (1acre = 0.4047 ha): 5.260 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh,

State: FL **County:** Brevard **Latitude (N):** 28 8' 30" **Longitude (W):** 80 36' 30"

Bay and sub-bays: Banana River

Directions to the site: Melbourne; access by boat only, N of Eau Gallie Causeway; created wetlands consisting of excavated tidal creeks and tidal flats. Entire W side of island returned to wetland elevations.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Paspalum vaginatum*, *Sporobolus virginicus*, and *Batis maritima* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 85% cover, 95% survival; no die back seen after 6 mo. Dec-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? No

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers beginning in May and continuing through Dec 1993. Marsh appears to be doing well, no mortality as of Feb 1994.
- Marsh name: Samson Island

Marsh Inventory No.: 751 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 09/01/86

Area Planted (1acre = 0.4047 ha): 1.670 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: David McWilliams (407)777-4111 is the contact person

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 11' **Longitude (W):** 80 37'

Bay and sub-bays: Banana River

Directions to the site: Satellite Beach; 3.5 miles N of Eau Gallie Causeway, entry road off South Patrick Blvd. Perimeter marsh along E, W and S sides of old spoil island.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*, *Avicennia mangle*, and *Laguncularia racemosa* were planted on 5-ft centers; *Sporobolus virginicus* was planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover by *Spartina* and mangroves.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Some *Spartina* is being displaced by volunteer mangroves. After a slow start the grasses have filled in to almost complete coalesence.
- The mangroves have formed a 6-10' hedge along the entire shoreline. Marsh name: Windward Cove

Marsh Inventory No.: 783 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 08/01/87

Area Planted (1acre = 0.4047 ha): 0.490 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Jack Bennett (407) 783-3060 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 21' **Longitude (W):** 80 36' 30"

Bay and sub-bays: Banana River

Directions to the site: Cocoa Beach; A-1-A half mile S of State Rd. 520; narrow fringing site along W and S shoreline protected by coquina boulder revetment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Paspalum vaginatum* was planted on 2-ft centers; *Avicennia germinans* and *Laguncularia racemosa* were planted on 5-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% as of May-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Much of the *Spartina alterniflora* has been replaced by *Scirpus robustus* and mangroves. This is a replacement planting where mangroves had displaced the marsh, and then been killed by freezes.
- Marsh name: Rock Pointe. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Marsh Inventory No.: 786 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 08/01/90

Area Planted (1acre = 0.4047 ha): 0.648 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Arnold Mallard (407) 730-2404 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 32' **Longitude (W):** 80 36' 40"

Bay and sub-bays: Banana River

Directions to the site: Cape Canaveral; adjacent to Titan missle complex (restricted access); rectangular created wetland connected to the Banana River.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Bacopa carolinianum, Eleocharis cellulosa, Sesuvium portulacastrum, Batis maritima, Salicornia virginica, Sporobolus virginicus, Distichlis spicata,* ans *Spartina bakeri* were planted on 3-ft centers; *Laguncularia racemosa* on 5-ft centers.

Percent vegetative cover attained by the planted marsh: 60-70% cover as of Oct-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* occupies only the waterward edge; the majority of the site is covered by *Distichlis* and other high marsh species. Mangroves have survived. Growth is good and coverage should reach 90-100% by 1995.
- Marsh name: Canaveral AFS-Solid Motor Assembly Building. *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 773 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 08/01/84

Area Planted (1acre = 0.4047 ha): 0.138 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bill Moord (407) 783-0037 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 23' 25" **Longitude (W):** 80 36' 50"

Bay and sub-bays: Banana River

Directions to the site: Cape Canaveral; A-1-A; 1 mile S of State Rd. 528; narrow shelf along a canal bordered by wooden bulkhead.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 80-90% as of March-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Planted between Aug-84 and June-85. Most *Spartina* has been displaced by a dense mangrove hedge. Some *Paspalum* and *Distichlis* invasion on the shelf, and isolated heavy patches of *Typha* combine to cover 90% of the shelf with 100% cover.
- Marsh name: Treasure Island Club *S. alterniflora* clumps were planted 2'on center (=o.c.)

Marsh Inventory No.: 186 **Information Rank (1-5):** 5 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha)**:** 0.040 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mariner's Square

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 21' 50" ? **Longitude (W):** 80 40' 50" ?

Bay and sub-bays: Banana River

Directions to the site: Mariner's Square; Cocoa Beach

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 49%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- No birds; a mouse; only a few killifish. Very small fringe marsh lacks habitat complexity needed to support fish; should not have been in the study because it was so small.

-

Marsh Inventory No.: 250 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.400 hectares

COE Permit No.: None **Date of COE Permit:**

Originator or Applicant for permit: Costa del Sol Condominiums

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 22' 15" **Longitude (W):** 80 36' 18"

Bay and sub-bays: Banana River; Banana River Lagoon

Directions to the site: Banana River Lagoon, Cocoa Beach

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991; T. H. Roberts, 1991)

References or reports: (Crewz & Lewis, 1991; T. H. Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 30% (Crews & Lewis); 67% (Roberts); 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes, by Roberts. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- *Spartina alterniflora* limited by poor flushing; bad topography. Area is receiving much freshwater inflow and southern cattail, *Typha domingensis*, is invading. Mixed failure. Roberts found a few birds, a rat, signs of raccoons, and very many killifish.

-

Marsh Inventory No.: 251 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.120 hectares

COE Permit No.: None **Date of COE Permit:**

Originator or Applicant for permit: Fountain Cove Condominiums

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 20' 47" **Longitude (W):** 80 36' 32"

Bay and sub-bays: Banana River; Banana River Lagoon

Directions to the site: Fountain Cove, Banana River Lagoon, Cocoa Beach

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991; T. H. Roberts, 1991)

References or reports: (Crewz & Lewis, 1991; T. H. Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 34% (Crewz & Lewis), 51% (Roberts); 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- *Spartina alterniflora* limited by poor flushing and topography. Deemed a failure by Crewz and Lewis. Roberts found no birds or mammals, but very many killifish in the marsh.

Marsh Inventory No.: 785 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 06/01/79

Area Planted (1acre = 0.4047 ha): 0.554 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bob Lynds (407) 723-2095 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 22' 20" **Longitude (W):** 80 42' 10"

Bay and sub-bays: Banana River; Newfound Harbor

Directions to the site: Merritt Island; State Rd. 3, 4 miles N of State Rd. 520; fringing intertidal shoreline along the Indian River and boat basin.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*, *Paspalum vaginatum* and *Distichlis spicata* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 90-100% coverby combined species as of March-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. *S. alterniflora* is being replaced by high marsh grasses as the elevation has built up behind the coquina boulder revetment.
- Marsh name: Egret's Cove.

Marsh Inventory No.: 775 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 02/01/89

Area Planted (1acre = 0.4047 ha): 1.570 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Ron Taylor (407) 783-1320 is the contact person.

<u>Location of the marsh.</u>

State: FL **County:** Brevard **Latitude (N):** 28 21' 30" **Longitude (W):** 80 41' 05"

Bay and sub-bays: Banana River; Newfound Harbor

Directions to the site: Merritt Island; State Rd 520; behind and S of Merritt Square Mall; large cove connected by wide inlet to Newfound Harbor.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Juncus roemerianus* was planted on 3-ft centers; *Rhizophora mangle* was also planted.

Percent vegetative cover attained by the planted marsh: 90-100% cover as of Aug-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The large tidal flats are completely grown in with *Spartina*, *Juncus* and other high marsh species. Volunteer mangroves (mostly white) are taking over in some areas. There is a sparse area in the NW corner or the planted shelf.
- Marsh name: Harbor Woods *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 761 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 03/01/85

Area Planted (1acre = 0.4047 ha): 1.137 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: William Lambert (407) 452-7946 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 24' 15" **Longitude (W):** 80 41' 55"

Bay and sub-bays: Banana River; Newfound Harbor; Sykes Creek

Directions to the site: Merritt Island; Hwy 528 at S.R. 3 on Merritt Island; enclosed pond connected to Newfound Harbor via culverts.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata* was planted on 3-ft centers.

Percent vegetative cover attained by the planted marsh: Much of the *Spartina* has been replaced by *Eleocharis* and *Scirpus robustus*, but the marsh as a whole has achieved 85-100% cover, as of May-92.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Freshwater species have invaded. *Typha* has taken over a large area. There are periodic heavy freshwater inflows.
- Marsh name: Lambert Seafoods, Inc. *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 767 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 12/01/89

Area Planted (1acre = 0.4047 ha)**:** 1.267 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Reese Kessler (407) 696-4222 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 26' 00" **Longitude (W):** 80 41' 50"

Bay and sub-bays: Banana River; Newfound Harbor; Sykes Creek

Directions to the site: Merritt Island; State Rd. 3, 3 miles N of Hwy 528; created wetlands, mostly high marsh adjacent to tidal ditch connected to Sykes Creek.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata*, *Salicornia virginica*, and *Batis maritima* were planted on 2-ft centers; *Avicennia germinans* and *Spartina bakeri.*

Percent vegetative cover attained by the planted marsh: 100% by high marsh species, and by fring *S. alterniflora* as of Oct-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Growing well.
- Marsh name: Savannahs

Marsh Inventory No.: 195 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1986

Area Planted (1acre = 0.4047 ha)**:** 0.010 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Canaveral Bay

Directions to the site: Canaveral Bay; Cocoa Beach

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 73%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- No birds; no rats; raccoon tracks; many small killifish.
-

Marsh Inventory No.: 772 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 01/01/88

Area Planted (1acre = 0.4047 ha): 0.271 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Stan Rosenbaum (904) 446-0346 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N): Longitude (W):**

Bay and sub-bays: ICW

Directions to the site: Flagler Beach; A-1-A 3 miles N of Hwy 100; created intertidal shelf along ICW protected by coquina rock revetment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus*, *Distichlis spicata*, *Juncus roemerianus* and *Paspalum vaginatum* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover by *Spartina* and highmarsh species.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Erosion due to boat wakes is severe in this region, and is why the rock break water was built to protect the planting and shoreline. The planted intertidal community is healthy and has generally coalesced to complete ground coverage.
- The *Juncus* marsh planted adjacent to an existing natural needlerush marsh has also achieved 100% aerial coverage and is indistinguishable from the natural marsh. Marsh name: Ocean Marina.

Marsh Inventory No.: 757 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 04/01/90

Area Planted (1acre = 0.4047 ha): 1.012 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Bill Sargent (904) 329-4500 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N): Longitude (W):**

Bay and sub-bays: Indian River

Directions to the site: Several dredged material deposition islands and peninsulas in the Indian River, 7 sites.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Avicennia germinans* was planted on 4-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover in 20% of the planted area; 25% of the area was lost to erosion; remaining 55% are coalescing and have reached about 70% cover as of June-93.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Some areas were subject to severe erosion and were washed out. No protective devices were used to protect the plantings.
- Project name: S.W.I.M. in Brevard and Indian River counties.

Marsh Inventory No.: 762 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 02/01/90

Area Planted (1acre = 0.4047 ha)**:** 1.728 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Mark Hesse (407) 452-7631 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 26' 30" **Longitude (W):** 80 43' 25"

Bay and sub-bays: Indian River

Directions to the site: Merritt Island; State Road 3, 6 miles N of Hwy 528; protected cove and 3 sites on the Indian River.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata* and *Paspalum vaginatum* wre planted on 3-ft centers; *Avicennia germinans* was planted from 1-gal containers on10-ft centers.

Percent vegetative cover attained by the planted marsh: 80-100% cover attained in most *Spartina* areas as of May-92

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The grasses are healthy in all of the planted areas. The retention area and the Big Lake shoreline are experiencing some nuisance species invasion. The mangroves were all killed by freezes, but some mangroves are growing in the *Spartina*.
- Marsh name: Indian Bay *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 776 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 05/01/86

Area Planted (1acre = 0.4047 ha)**:** 0.465 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Ed Poe (407) 267-1841 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 37' **Longitude (W):** 80 48' 10"

Bay and sub-bays: Indian River

Directions to the site: Titusville; State Rd. 406 at Indian River; shoreline marsh created behind a protective coquina rock revetment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata*, *Sporobolus virginicus*, *Paspalum vaginatum* were planted on 2-ft centers; *Laguncularia racemosa.*

Percent vegetative cover attained by the planted marsh: 95% cover by the combined species as of Sept-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The *Spartina* has diminished in favor of the other high marsh grass species. Most of the mangroves were killed by freezes. Potential erosion by wave action was averted by a coquina boulder break water.
- Marsh name: Harbor Town. *S. alterniflora* clumps were planted on 2-ft centers.

Marsh Inventory No.: 780 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 09/01/82

Area Planted (1acre = 0.4047 ha)**:** 0.255 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Steve Peffer (407) 453-9517 is the contact person.

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 04' 40" **Longitude (W):** 80 35' 40"

Bay and sub-bays: Indian River

Directions to the site: Melbourne; U.S. Hwy 192 at U.S. 1; small pocket marsh created behind coquina breakwater.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata* and *Paspalum vaginatum* were planted on 2-ft cneters; *Rhizophora mangle* and *Laguncularia racemosa.*

Percent vegetative cover attained by the planted marsh: 100% as of Sept-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina* is being replaced by volunteer mangroves. Most planted mangroves died in subsequent freezes. Elevations have favored a transition to high marsh dominated by *Distichlis* and *Paspalum.*
- Marsh name: Front Street Park. *S. alterniflora* clumps were planted on 2-ft centers.

Marsh Inventory No.: 221 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 0.120 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Harbor Isles

Location of the marsh.

State: FL **County:** Brevard **Latitude (N):** 28 21' 50" ? **Longitude (W):** 80 40' 50" ?

Bay and sub-bays: Newfound Harbor, Banana River;

Directions to the site: Harbor Isles; Cocoa Beach

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 79%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Marsh was successful. No birds; no rats; raccoon tracks; many small killifish.
-

Marsh Inventory No.: 750 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 07/01/90

Area Planted (1acre = 0.4047 ha)**:** 3.950 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Paul Douglas (305) 254-2106 is the contact person

<u>Location of the marsh.</u>

State: FL **County:** Dade **Latitude (N):** 25 44' 00?" **Longitude (W):** 80 13' 00?"

Bay and sub-bays: Biscayne Bay; Deering Bay; flushing channel

Directions to the site: Miami; Old Cutler Road at Chapman Field; fulshing channel connecting bay to Biscayne Bay.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 2-ft centers; *Eleocharis cellulosa, Sagittaria lancifolia, Scirpus validus, Rhizophora mangle.*

Percent vegetative cover attained by the planted marsh: After replanting: 70-100% aerial coverage.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Water levels and salinities have fluctuated wildly at the site. 25,000 plants have died. Remedial action was to replant with *Spartina alterniflora* and *Sporobolus virginicus*. The *Spartina* is beginning to trap mangrove seeds.
- Marsh name: Deering Bay *S. alterniflora* clumps were planted on 2-ft centers.

Marsh Inventory No.: 774 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 06/01/87

Area Planted (1acre = 0.4047 ha): 0.567 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Jack Tallon (904) 829-6727 is the contact person.

Location of the marsh.

State: FL **County:** Duval **Latitude (N):** 30 17' 00?" **Longitude (W):** 81 25' 00?"

Bay and sub-bays: Pablo Creek

Directions to the site: Jacksonville; St. John's Bluff Rd.; 1 mile N of Butler Blvd.; created extension to natural tidal marsh.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Juncus roemerianus*

Percent vegetative cover attained by the planted marsh: 100% cover as of Apr-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Blended into the adjacent natural marhses; are indistinguishable.
- Marsh name: Coastal Point

Marsh Inventory No.: 763 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 10/01/84

Area Planted (1acre = 0.4047 ha)**:** 0.417 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Mike Antonopoulos (904) 353-8471 is the contact person.

Location of the marsh.

State: FL **County:** Duval **Latitude (N):** 30 33' 00?" **Longitude (W):** 81 36' 30"

Bay and sub-bays: St. John's River

Directions to the site: Jacksonville; N end of University Blvd.; semi-enclosed cove; connected to the St. John's River by shallow inlets.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover where elevation was high enough. May-92

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- High water levels due to poorly constructed flushing connection were corrected; healthy saltmarsh community with areas of open water was established with open pools in the deeper areas.
- Marsh name: Sandy Shores *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 771 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 04/01/85

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bruce Taylor (904) 731-7040 is the contact person.

Location of the marsh.

State: FL **County:** Duval **Latitude (N):** 30 33' 00?" **Longitude (W):** 81 31' 40?"

Bay and sub-bays: St. John's River

Directions to the site: Jacksonville; end of Ft. Caroline Rd.; wide planted area along the St. John's River protected by granite rock revetment, at St. John's Landing.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 100% cover as of April-93.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Large tidal amplitudes and currents at this location. A granite break water surrounds the planted area, and acted as protection from wave erosion. The marsh reached coalescence within 3 months of planting, and has matured into a dynamic ecosystem.
- Marsh name: St. John's Landing *S. alterniflora* clumps were planted on 3-ft centers.

Marsh Inventory No.: 787 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 10/01/88

Area Planted (1acre = 0.4047 ha): 3.966 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Steve Duval (904) 642-8507 is the contact person.

Location of the marsh.

State: FL **County:** Duval **Latitude (N):** 30 31' 00?" **Longitude (W):** 81 34' 00?"

Bay and sub-bays: St. John's River

Directions to the site: Jacksonville; Hwy. 9A over St. John's River; wide marsh at S abutment and central island.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata* and *Sporobolus virginicus* were planted on 3-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% cover as of June-93.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 3-ft centers. Both areas have matured into dense healthy saltmarsh communities.
- Marsh name: Dames Point Bridge - South Abutment and Nichols Creek.

Marsh Inventory No.: 241 **Information Rank (1-5):** 5 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha)**:** 0.200 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: St. John's Landing

Location of the marsh.

State: FL **County:** Duval **Latitude (N): Longitude (W):**

Bay and sub-bays: St. John's River

Directions to the site: St. John's Landing; Jacksonville

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 63%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Birds, mammals, and epibenthic snails.

General comments about the marsh:

- Few birds; a mouse;
-

Marsh Inventory No.: 782 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 05/01/87

Area Planted (1acre = 0.4047 ha): 0.352 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Pete Peterson (904) 264-2011 is the contact person.

Location of the marsh.

State: FL **County:** Duval **Latitude (N):** 30 24' 30" **Longitude (W):** 81 40' 00?"

Bay and sub-bays: St. John's River; Trout River

Directions to the site: Jacksonville; Hecksher Dr. W of I-95; created extension of natural marsh connected to the Trout River by an excavated tidal creek.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Juncus roemerianus* was planted on 3-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% cover as of June-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 3-ft centers. Saltmarsh created next to a natural *Spartina-Juncus* marsh was very successful.
- Marsh name: River Crossing.

Marsh Inventory No.: 373 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1976

Area Planted (1acre = 0.4047 ha)**:** hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 48' 28" **Longitude (W):** 82 25' 00"

Bay and sub-bays: Tampa Bay

Directions to the site: North side of Fishhook Island

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Fishhook Island.
-

Marsh Inventory No.: 374 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1991

Area Planted (1acre = 0.4047 ha)**:** hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 44' 33" **Longitude (W):** 82 28' 15"

Bay and sub-bays: Tampa Bay

Directions to the site: Pelican Cove, Simmons Park

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Simmons Park.
-

Marsh Inventory No.: 376 **Information Rank (1-5):** 3 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Tampa Electric ?

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 38' 40" **Longitude (W):** 82 33' 25"

Bay and sub-bays: Tampa Bay

Directions to the site: Ft. Lonely

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Tampa Electric Shoreline.
-

Marsh Inventory No.: 263 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 1.214 hectares

COE Permit No.: 83D-2158 **Date of COE Permit:** 1983

Originator or Applicant for permit: Harbour Island

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 56' 08" **Longitude (W):** 82 26' 52"

Bay and sub-bays: Tampa Bay area; Sparkman Channel

Directions to the site: Seddon Island; along Sparkman Channel; E-side of Harbor Island, Site A.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 8%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing, but ship wakes and flotsam debris appears to have damaged patches of the growth. Mixed success.
-

Marsh Inventory No.: 264 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 0.400 hectares

COE Permit No.: 83D-2158 **Date of COE Permit:** 1983

Originator or Applicant for permit: Harbour Island

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 56' 08" **Longitude (W):** 82 26' 52"

Bay and sub-bays: Tampa Bay area; Sparkman Channel

Directions to the site: Seddon Island; along Sparkman Channel; E-side of Harbor Island, Site B.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991); T. H. Roberts, 1991)

References or reports: (Crewz & Lewis, 1991); T. H. Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 27% (Crewz & Lewis), 60% (Roberts); 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- *Spartina alterniflora* was growing, but uneven elevations created pooling that drowned some plants. This area was behind a berm from Site A, thus semi-protected from ship wakes. Deemed a mixed success by Crewz and Lewis.
- Roberts found a few birds, raccoon and rabbit tracks, and many killifish.

Marsh Inventory No.: 375 **Information Rank (1-5):** 4 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 41'15" **Longitude (W):** 82 31' 15"

Bay and sub-bays: Tampa Bay; Cockroach Channel

Directions to the site: At end of Cockroach Bay Road

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Cockroach Bay Boat Ramp.
-

Marsh Inventory No.: 368 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1989

Area Planted (1acre = 0.4047 ha): 1.740 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 53' 10" **Longitude (W):** 82 24' 15"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: Off Tamiami Trail, south of Port Sutton.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Dr. Brandt Henningsen, SW Florida Water Management District, Surface Water Improvement and Management Program, 7601 Highway 301 N, Tampa, FL 33637, (813) 985-7481 ext. 2202

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Birds and fish.

General comments about the marsh:

- Some sampling has been done by SWIM. Comments that the marsh is coalescing nicely and more animals are using the area.
- Marsh name: Delaney Creek.

Marsh Inventory No.: 367 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Tampa Port Authority

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 53' 50" **Longitude (W):** 82 24' 45"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: Off US Bus.45(= Rd. 41), south of Port Sutton.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Tampa Port Authority
-

Marsh Inventory No.: 647 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1993

Area Planted (1acre = 0.4047 ha)**:** 4.897 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: SWIM and City of Tampa

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 50' 00" **Longitude (W):** 82 28' 15"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: At the end of Interbay Peninsula, on the MacDill AFB, in the SE corner.

Source of planting information: Dr. Brandt Henningsen, SW Florida Water Management District, Surface Water Improvement and Management Program, 7601 Highway 301 N, Tampa, FL 33637, (813) 985-7481 ext. 2202

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Will be completed in Dec '93 or spring '94.
- Marsh name: MacDill AFB, No.2 - N of Gadsden Point.

Marsh Inventory No.: 677 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 12/01/93

Area Planted (1acre = 0.4047 ha)**:** 7.123 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: U.S. Air Force and SWIM

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 49' 25" **Longitude (W):** 82 23' 30"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: MacDill Air Force Base; Gadsden Point, Tampa

Source of planting information: Dr. Brandt Henningsen, SW Florida Water Management District, Surface Water Improvement and Management Program, 7601 Highway 301 N, Tampa, FL 33637, (813) 985-7481 ext. 2202

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-
-

Marsh Inventory No.: 371 **Information Rank (1-5):** 3 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha)**:** hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 50' 56" **Longitude (W):** 82 24' 30"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: North side of Bird Island

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Marsh name: Bird Island.
-

Marsh Inventory No.: 617 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1979

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 52' 24" **Longitude (W):** 82 25' 45"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: Dredged material Island 2D

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Dr. Brandt Henningsen, SWIM, (813) 985-7481 ext. 2202

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Furnished *Spartina alterniflora* transplant material for another project. This marsh's recovery was evaluated (Courtney 1991). The marsh filled in the 1-m wide harvested zones within a growing season.
- Henningsen said this marsh was coalescing nicely; successful.

Marsh Inventory No.: 679 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 1.214 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 51' 20" **Longitude (W):** 82 32' 50"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: A little N of the end of Interbay Peninsula and west of MacDill AFB.

Source of planting information: Dr. Brandt Henningsen, SW Florida Water Management District, Surface Water Improvement and Management Program, 7601 Highway 301 N, Tampa, FL 33637, (813) 985-7481 ext. 2202

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Will be finished in 1993.
- Marsh name: Picnic Island.

Marsh Inventory No.: 370 **Information Rank (1-5):** 4 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha)**:** hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 52' 00" **Longitude (W):** 82 24' 13"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: West shoreline of East Tampa.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports: (Crewz & Lewis, 1991; Henningsen, 1993)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986 and 1993

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Marsh is doing well (filling in).
- Marsh name: Gypsum Stack.

Marsh Inventory No.: 365 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1983?

Area Planted (1acre = 0.4047 ha): 2.800 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 49' 35" **Longitude (W):** 82 29' 05"

Bay and sub-bays: Tampa Bay; Hillsborough Bay.

Directions to the site: At the end of Interbay Peninsula, on the MacDill AFB, a little W of the SE corner.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 60%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Few birds; a rat; raccoon tracks; many killifish;
- Marsh name: MacDill AFB, No.1

Marsh Inventory No.: 266 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1979

Area Planted (1acre = 0.4047 ha): 1.700 hectares

COE Permit No.: None **Date of COE Permit:**

Originator or Applicant for permit: Sunken Island

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 48' 25" **Longitude (W):** 82 26' 01"

Bay and sub-bays: Tampa Bay; Hillsborough Bay; Alafia River Mouth.

Directions to the site: Northwest end of Sunken Island

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 26%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing well at low elevations; black and white mangrove had invaded as expected, and was doing very well amongst the *S. alterniflora* at higher elevations. Successful.
- *S. alterniflora* colonizes an area but then loses dominance as mangroves invade and displace the cordgrass.

Marsh Inventory No.: 670 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1978

Area Planted (1acre = 0.4047 ha)**:** 0.405 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 51' 49" **Longitude (W):** 82 23' 40"

Bay and sub-bays: Tampa Bay; Hillsborough Bay; Archie Creek

Directions to the site: Archie Creek between 45 and 78 th St.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports: (Crewz & Lewis, 1991; Henningsen, 1993)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986; 1993

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Marsh name: One-acre Marsh

Marsh Inventory No.: 369 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1988

Area Planted (1acre = 0.4047 ha)**:** 0.405 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 51' 49" **Longitude (W):** 82 23' 40"

Bay and sub-bays: Tampa Bay; Hillsborough Bay; Archie Creek

Directions to the site: Archie Creek between 45 and 78 th St.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports: (Crewz & Lewis, 1991; Henningsen, 1993)

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 1986; 1993

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Marsh name: One-acre Marsh

Marsh Inventory No.: 262 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1978

Area Planted (1acre = 0.4047 ha): 2.500 hectares

COE Permit No.: 76-074 **Date of COE Permit:** 1976

Originator or Applicant for permit: The Gardinier, Inc.

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 51' 49" **Longitude (W):** 82 23' 40"

Bay and sub-bays: Tampa Bay; Hillsborough Bay; Archie Creek.

Directions to the site: East Tampa, at The Gardinier, Inc. property on Archie Creek off the Alafia River

Source of planting information: Crewz and Lewis, and Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Crewz & Lewis, 1991; Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 84%, 1986 (Crewz & Lewis); 72%, 1987 (Roberts)

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes, (Roberts, 1991). Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Roberts found many birds, several rats and mice, and many killifish. Crewz and Lewis also surveyed this marsh and deemed it successful, however, fine silt drainage from this area appeared to be negatively impacting a natural marsh downstream.
-

Marsh Inventory No.: 366 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1992

Area Planted (1acre = 0.4047 ha)**:** 1.214 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: City of Tampa

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 57' 05" **Longitude (W):** 82 24' 50"

Bay and sub-bays: Tampa Bay; Hillsborough Bay; McKay Bay

Directions to the site: Northernmost branch of McKay Bay, south of Rd. 618.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Dr. Brandt Henningsen, SWIM, (813) 985-7481 est. 2202

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : *Spartina patens* and *Paspalum distichum.*

Percent vegetative cover attained by the planted marsh: 1986 and 1993.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries studies with monthly sampling since Mar'92

General comments about the marsh:

- Marsh doing well, and being used by birds, reptiles and fish.
- Marsh name: McKay Bay

Marsh Inventory No.: 255 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 0.142 hectares

COE Permit No.: 84W-0514 **Date of COE Permit:** 07/03/84

Originator or Applicant for permit: Wilson Company

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 57' 52" **Longitude (W):** 82 33' 08"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Fish Creek off 589-Bayport C

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 2%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- Planted *Spartina alterniflora* was dying; substrate was too low, and there was too much wave impact. Failure.
-

Marsh Inventory No.: 254 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: 84W-0514 **Date of COE Permit:** 07/03/84

Originator or Applicant for permit: Wilson Company

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 57' 52" **Longitude (W):** 82 33' 08"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Fish Creek off 589-Bayport B

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 45%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing well, good topography, but there was no room for expansion with sealevel rize. Successful.
-

Marsh Inventory No.: 256 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 0.202 hectares

COE Permit No.: 84W-0514 **Date of COE Permit:** 07/03/84

Originator or Applicant for permit: Wilson Company

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 58' 52" **Longitude (W):** 82 33' 08"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Fish Creek off 589-Bayport D

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 1%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing poorly; site's substrate was too low and had poor tidal flushing. Failure.
-

Marsh Inventory No.: 53 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 0.202 hectares

COE Permit No.: 84W-0514 **Date of COE Permit:** 07/03/84

Originator or Applicant for permit: Wilson Company

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 57' 52" **Longitude (W):** 82 33' 08"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Fish Creek off 589-Bayport A

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 16%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing, but humans were trampling it. Mixed success.
-

Marsh Inventory No.: 372 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.100 hectares

COE Permit No.: 82(?)-0048 **Date of COE Permit:** 06/04/05

Originator or Applicant for permit: Gandy Bridge Boat Ramp

Location of the marsh.

State: FL **County:** Hillsborough **Latitude (N):** 27 53' 25" **Longitude (W):** 82 32' 05"

Bay and sub-bays: Tampa Bay; Old Tampa Bay.

Directions to the site: Under the east end of Gandy Bridge off the Interbay Pennisula, Tampa.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991; Roberts, 1991)

References or reports: (Crewz & Lewis, 1991; Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 25% 1986 (Crewz & Lewis); 50% 1987 (Roberts)

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- This area had too low of elevations in its interior for cordgrass establishment, and was deemed a failure by Crewz and Lewis (1991) in their survey made in the spring of 1986.
- No birds, a rat, signs of rabbits, and many killifish were found by Roberts (1991).

Marsh Inventory No.: 253 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: None **Date of COE Permit:**

Originator or Applicant for permit: Seagrove

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 37' 10" **Longitude (W):** 80 21' 20"

Bay and sub-bays: Indian River

Directions to the site: Indian River Lagoon

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 37%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* and mangrove well established; good flushing and topography. Successful.
-

Marsh Inventory No.: 752 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 07/01/85

Area Planted (1acre = 0.4047 ha): 0.640 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Andreas Gotzfried (305) 867-2000 is the contact person

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 34' 00?" **Longitude (W):** 80 19' 50"

Bay and sub-bays: Indian River

Directions to the site: Vero Beach; Hwy. A-1-A 5 miles S of State Rd 60; a tidal creek-loop system connected through a fringing mangrove swamp to the Indian River.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 100% March-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 3-ft centers. Thick band of *Spartina* along edge. *Spartina* inside has largely (90%) been replaced by mangroves. The area also has *Batis*, *Salicornia*, *Sesuvium*, and *Sueda*.
- Marsh name: Sea Grove

Marsh Inventory No.: 753 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 04/01/86

Area Planted (1acre = 0.4047 ha): 0.250 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Henry Muller or Steve Moler (407) 231-4223 are the contact people.

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 51' 05" **Longitude (W):** 80 29' 30"

Bay and sub-bays: Indian River

Directions to the site: Sebastian; US 1 at S end of city limits; created on a peninsula between harbor and Indian River.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Paspalum vaginatum*

Percent vegetative cover attained by the planted marsh: 100% July-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 3-ft centers. Saltmarsh grasses were planted as an initial stabilizer community and as a nursery for mangrove establishment. *Spartina* has been mostly replaced by mangroves in the interior.
- Marsh name: River Run Condo

Marsh Inventory No.: 778 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 10/01/81

Area Planted (1acre = 0.4047 ha): 1.404 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bob Lynds is the contact person.

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 28 04' 40" **Longitude (W):** 80 36' 10"

Bay and sub-bays: Indian River

Directions to the site: Melbourne; Hwy 192 at the Indian River; fringing shoreline with coquina rock revetment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens* and *Distichlis spicata* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% cover as of Sept-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Coquina boulder break water was installed at the toe zone to prevent erosion. Mangroves are beginning to invade the marsh, especially in a 1 acre marsh on the N side of the point (about 50% mangrove as of Sept-93).
- Marsh name: Melbourne Harbor *S. alterniflora* clumps were planted on 2-ft centers.

Marsh Inventory No.: 779 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 03/01/90

Area Planted (1acre = 0.4047 ha): 0.210 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: George Fleming (407) 783-6153 is the contact person.

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 36' 00?" **Longitude (W):** 80 20' 00?"

Bay and sub-bays: Indian River

Directions to the site: Vero Beach; A-1-A 5 miles S of State Rd. 60; fringing marsh along shoreline.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 80-90% cover as of Jun-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. The *Spartina* marsh is being invaded by mangroves. The marsh was established for erosion control and intertidal habitat.
- Marsh name: Sand Pointe

Marsh Inventory No.: 765 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 07/01/88

Area Planted (1acre = 0.4047 ha): 28.410 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Ron Andrews (407) 778-0503 is the contact person.

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 37' 30?" **Longitude (W):** 80 22' 45"

Bay and sub-bays: Indian River

Directions to the site: Vero Beach; U.S.1 N of Vero Beach and between 45th and 51st streets; rehabilitated tidal marsh in an old mosquito impoundment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina bakeri, Iris virginica, Pontederia cordata, Sagitaria lancifolia, Distichlis spicata, Sporobolus virginicus, Spartina patens, Sesuvium portulacastrum; Juncus roemerianus, Batis maritima, Salicornia virginica* were planted on1.5-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% cover by marsh plants, as of Nov-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The estuarine and freshwater marshes have reached nearly 100% ground cover throughout the project. Additional species have invaded from adjacent areas. Mangrove invasion in some areas.
- Marsh name: Grand Harbor. *S. alterniflora* clumps were planted on 1.5-ft centers.

Marsh Inventory No.: 766 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 03/01/89

Area Planted (1acre = 0.4047 ha): 2.975 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Reese Kessler (407) 699-4222 is the contact person.

<u>Location of the marsh.</u>

State: FL **County:** Indian River **Latitude (N):** 27 34' 00?" **Longitude (W):** 80 21' 40"

Bay and sub-bays: Indian River

Directions to the site: Vero Beach; U.S.1 S of Vero Beach, 1 mile S of Oslo Rd.; enclosed created tidal wetland, tidal flats.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Avicennia germinans*, *Scirpus validus*, *Sagittaria lancifolia*, *Pontederia cordata*; *Batis maritima* and *Salicornia virginica* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% by *S. alterniflora*; 100% cover by FW planting.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Mangroves are beginning to dominate some areas of the *Spartina* marsh. Freshwater plantings have covered their areas and are spreading further.
- Marsh name: Grove Isle.

Marsh Inventory No.: 618 **Information Rank (1-5):** 5 **State:** FL

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.450 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Sea Grove West

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 38' 00" ? **Longitude (W):** 80 22' 30" ?

Bay and sub-bays: Indian River;

Directions to the site: Sea Grove West; Vero Beach

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 40%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Modest marsh establishment. No birds; a couple of rats; raccoon tracks; few killifish.
-

Marsh Inventory No.: 261 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 05/01/76

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: Yes, but not known **Date of COE Permit:** 1976

Originator or Applicant for permit: Private land developer

Location of the marsh.

State: FL **County:** Indian River **Latitude (N):** 27 40' 57" **Longitude (W):** 80 22' 12"

Bay and sub-bays: Indian River; McCullers Cove

Directions to the site: NE corner of McCullers Cove, about 5 km N of Riomar which is E of Vero Beach. At the SW tip of the residential development bulkhead.

Source of planting information: A. Banner, 1977

Source of subsequent assessment information: (Banner, 1977)

References or reports: (Banner, 1977)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle, Laguncularia racemosa, Avicennia nitida*

Percent vegetative cover attained by the planted marsh: 90%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? A general sampling of fish, shellfish, and benthos was made.

General comments about the marsh:

- *Spartina alterniflora* and mangrove well established; good flushing and topography. Successful.
- Many organisms typical of the estuary were found in the restored area, fewer benthic organisms were found in the thick *Spartina* marsh than away from it.

Marsh Inventory No.: 756 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 04/01/82

Area Planted (1acre = 0.4047 ha): 39.050 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Bob Snyder (407) 746-7290 is the contact person.

Location of the marsh.

State: FL **County:** Martin **Latitude (N):** 26 55' 00?" **Longitude (W):** 80 04' 20"

Bay and sub-bays: Loxahatchee River

Directions to the site: Jupiter; Alternate A-1-A, 1 mile S of S.R. 706; interconnecting system of canals and tidal marsh shelves, connected by 4 inlets.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Batis maritima, Sporobolus virginicus, Distichlis spicata, Juncus roemerianus, Avicennia germinans* and *Rhizophora mangle*. The grasses were palnted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover in 90 acres by mangroves or saltmarsh species.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Most of the *Spartina* has been replaced (displaced) by volunteer mangroves. Cordgrass fring dominates the waterward edges.
- Marsh name: Admirals Cove

Marsh Inventory No.: 257 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1981

Area Planted (1acre = 0.4047 ha): 3.500 hectares

COE Permit No.: 80M-0276 **Date of COE Permit:** 1980

Originator or Applicant for permit: Florida Keys Aqueduct Authority

Location of the marsh.

State: FL **County:** Monroe **Latitude (N):** 25 06' 39" **Longitude (W):** 80 24' 52"

Bay and sub-bays: Key Largo

Directions to the site: Parallel to Highway A1A for several miles on Key Largo.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991); A. Mager

Other species planted in addition to *Spartina alterniflora* : *Avicennia germinans*

Percent vegetative cover attained by the planted marsh: 12% - cordgrass; 8% - mangroves, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing poorly; site's substrate was too low and had poor tidal flushing. The mangroves' roots could not penetrate very far in the rocky substrate. Failure.

-

Marsh Inventory No.: 764 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 12/01/79

Area Planted (1acre = 0.4047 ha): 5.463 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Don Shakelford (407) 627-5110 is the contact person.

Location of the marsh.

State: FL **County:** Palm Beach **Latitude (N):** 26 53' 30" **Longitude (W):** 80 05' 00?"

Bay and sub-bays: ICW

Directions to the site: Palm Beach Gardens; Donald Ross Rd., W of ICW; loop system of created tidal canals with narrow tidal beaches.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*, *Sporobolus virginicus*, *Distichlis spicata*, and *Paspalum vaginatum* were planted on 2-ft centers; *Avicennia germinans*, *Rhizophora mangle*, and *Laguncularia racemosa*.

Percent vegetative cover attained by the planted marsh: 80-100% *Spartina* cover; thinner areas of mangrove cover, as of May-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Planted over a long time: Dec-79 thru May-90. Most of the intertidal shelves are successfully vegetated, although some areas are sparse; heavy invasion by mangrove volunteers.
- Marsh name: Frenchman's Creek.

Marsh Inventory No.: 755 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 11/01/82

Area Planted (1acre = 0.4047 ha): 0.500 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Don Shackelford (305) 627-5110 is the contact person.

Location of the marsh.

State: FL **County:** Palm Beach **Latitude (N):** 26 53' 00?" **Longitude (W):** 80 05' 05?"

Bay and sub-bays: ICW

Directions to the site: Palm Beach Gardens; tidal canal connencted to the Intracoastal via culverts; just N of Donald Ross Rd. on Cypress Creek RD; fringing marsh along steep bank.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Juncus roemerianus*, *Avicennia germinans*, *Laguncularia racemosa* and *Rhizophora mangle* were planted on 2-ft centers. *Rhizophora* was in 1-gal containers.

Percent vegetative cover attained by the planted marsh: 100% cover, but is all mangrove. As of Jan-92

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Most of the grasses and rushes have been displaced by the mangroves. The mangroves have formed a 10-15' tall dense hedge.
- Marsh name: Cypress Creek

Marsh Inventory No.: 754 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 06/01/83

Area Planted (1acre = 0.4047 ha): 0.100 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Robert Snyder (305) 746-7290 is the contact person.

Location of the marsh.

State: FL **County:** Palm Beach **Latitude (N):** 26 56' 00?" **Longitude (W):** 80 04' 20?"

Bay and sub-bays: ICW

Directions to the site: Jupiter; S side of Jupiter Inlet on a high energy shoreline.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 1.5'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle* was planted on 3-ft centers.

Percent vegetative cover attained by the planted marsh: 70% cover by *Spartina*; mangroves about 100% cover as of Aug-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The mangroves and *Spartina* have grown and spread, holding erosion in check and covering the shoreline. There was partial protection of the planting site by a rock revetment.
- Marsh name: Harpoon Louie's

Marsh Inventory No.: 357 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 0.003 hectares

COE Permit No.: **Date of COE Permit:** 1990

Originator or Applicant for permit: Lakeside Palms Development

Location of the marsh.

State: FL **County:** Palm Beach **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Lake Worth

Directions to the site: I 95 to 6 th Ave South. East to South Palm Way or to lakeside. Go South. Lakeside Palms is on the east 8-10 blocks away.

Source of planting information: Caroline Hanes, Florida Dept. of Environmental Regulation, SE District Office, 1900 S. Congress Ave., Suite A, West Palm Beach, FL 33406, (407) 433-2650.

Source of subsequent assessment information: Caroline Hanes, Florida Dept. of Environmental Regulation, SE District Office, 1900 S. Congress Ave., Suite A, West Palm Beach, FL 33406, (407) 433-2650.

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *Spartina* well setablished on 5/92. Status reports availabel. Mitigation is considered successful as of 5/92. File # 501750906. 2 Sites, 150 sq. ft. and 225 sq. ft. planted.
-

Marsh Inventory No.: 356 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: **Date of COE Permit:** 1989

Originator or Applicant for permit: Russell Wilson

Location of the marsh.

State: FL **County:** Palm Beach **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Loxatchee River Cove

Directions to the site: South of Jupiter inlet, east of Loxatchee River. Take I 95 to Indian Town Road. Go East to A1A, north to Saturn St., east on Saturn to end of the road. Located Between some townhouses and a house at the north end of Saturn St.

Source of planting information: Caroline Hanes, Florida Dept. of Environmental Regulation, SE District Office, 1900 S. Congress Ave., Suite A, West Palm Beach, FL 33406, (407) 433-2650.

Source of subsequent assessment information: Caroline Hanes, Florida Dept. of Environmental Regulation, SE District Office, 1900 S. Congress Ave., Suite A, West Palm Beach, FL 33406, (407) 433-2650.

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 75%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- As of 10/91 *Spartina* had grown to 4'. No status reports have been submitted, but the site has been monitered. File # 501426206. 400 sq. ft. planted.
-

Marsh Inventory No.: 379 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1987

Area Planted (1acre = 0.4047 ha): 0.004? hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 42' 00" **Longitude (W):** 82 39' 00"

Bay and sub-bays: Tampa Bay; Main Channel

Directions to the site: South of Pinellas Point Drive, between Maxima Point and Point Pinellas.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Pinellas Point.
-

Marsh Inventory No.: 377 **Information Rank (1-5):** 3 **State:** FL

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 57' 30" **Longitude (W):** 82 42' 40"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Bayview, south of the Courtney Campbell Parkway

Source of planting information:

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh name: Bayview.
-

Marsh Inventory No.: 259 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 2.500 hectares

COE Permit No.: 83T-0476 **Date of COE Permit:** 1983

Originator or Applicant for permit: Feather Sound

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 54' 15" **Longitude (W):** 82 39' 35"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Feather Sound Site B; On the west side of Big Island; St. Petersburg

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 11%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing at the higher elevation; drainage creek blocked flushing, drowning the lower *S. alterniflora* was replanted after the Crewz & Lewis survey. Mixed failure.
-

Marsh Inventory No.: 249 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 0.400 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 54' 20" **Longitude (W):** 82 39' 45"

Bay and sub-bays: Tampa Bay; Old Tampa Bay

Directions to the site: Feather Cove;

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Robin Lewis, (813) 889-9684

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : *Rhizophora mangle*

Percent vegetative cover attained by the planted marsh: 13% - cordgrass, 2% - mangroves; 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- Too much freshwater and nutrients in the area allowed souther cat-tail to become extablished and to crowd out the cordgrass and stunt the red mangroves. Failure.
-

Marsh Inventory No.: 258 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.6-Lewis; 0.53-Roberts hectares

COE Permit No.: 83T-0476 **Date of COE Permit:** 1983

Originator or Applicant for permit: Feather Sound

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 54' 15" **Longitude (W):** 82 39' 35"

Bay and sub-bays: Tampa Bay; Old Tampa Bay;

Directions to the site: Feather Sound Site A; On the west side of Big Island; St. Petersburg

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Robin Lewis, (813) 889-9684 ; (Roberts, 1991)

References or reports: Crewz and Lewis, 1991; (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 87% (Crews & Lewis); 55% (Roberts); 1986.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes, by Roberts. Birds, mammals, and epibenthic snails.

General comments about the marsh:

- Few birds; many rats; raccoon tracks. Crewz and Lewis found the marsh and mangroves to be growing well enough to consider this planting a success. Marsh may convert to black mangrove forest later.

-

Marsh Inventory No.: 265 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: 82C-1099 **Date of COE Permit:** 1982

Originator or Applicant for permit: Las Fontanas

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 54' 50" **Longitude (W):** 82 42' 00"

Bay and sub-bays: Tampa Bay; Old Tampa Bay; Cross Bayou Canal.

Directions to the site: East of 686 where the road turns south at High Point

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: (Crewz & Lewis, 1991)

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 91%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing where Brazilian pepper had been removed; some colonization by red mangrove had started. Successful.

-

Marsh Inventory No.: 260 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 1984

Area Planted (1acre = 0.4047 ha)**:** 0.202 hectares

COE Permit No.: 82D-0339 **Date of COE Permit:** 1984

Originator or Applicant for permit: FM 92 Radio Tower

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 28 00' 54" **Longitude (W):** 82 41' 04"

Bay and sub-bays: Tampa Bay; Old Tampa Bay; Safety Harbor

Directions to the site: Radio tower site east of 590, north of Phillipe Point.

Source of planting information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684

Source of subsequent assessment information: Robin Lewis, (813) 889-9684

References or reports: (Crewz & Lewis, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 34%, 1986

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *Spartina alterniflora* was growing at lower and higher elevation areas; black mangrove was starting to colonize the higher area. Mixed success.
-

Marsh Inventory No.: 378 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 4.047 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: SWIM and City of St. Petersburg

Location of the marsh.

State: FL **County:** Pinellas **Latitude (N):** 27 49' 10" **Longitude (W):** 82 37' 07"

Bay and sub-bays: Tampa Bay; Placido Bayou

Directions to the site: W of Riveria Bay, N of the Mangrove Bay golf course, S of Gandy Blvd., and adjacent and S of the E end of 78th Ave NE

Source of planting information: Dr. Brandt Henningsen, SW Florida Water Management District, Surface Water Improvement and Management Program, 7601 Highway 301 N, Tampa, FL 33637, (813) 985-7481 ext. 2202

Source of subsequent assessment information: Dr. Brandt Henningsen, SWIM, (813) 985-7481 ext. 2202

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fish, invertebrates and birds.

General comments about the marsh:

- This was a successful restoration and creation project. Many fisheries organisms have been caught in monitoring sampling. Bird sitings confirm bird utilization of the marsh.
- Marsh name: Mangrove Bay.

Marsh Inventory No.: 619 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): 0.610 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Thunder Bay

Location of the marsh.

State: FL **County:** Pinellas ? **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Tampa Bay; Thunder Bay

Directions to the site: Thunder Bay; St. Petersburg

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 52%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Marsh was successful. Few birds; a rat; many killifish.
-

Marsh Inventory No.: 760 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 01/01/83

Area Planted (1acre = 0.4047 ha)**:** 0.631 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Randall Gentry (904) 824-0888 is the contact person.

Location of the marsh.

State: FL **County:** St. Johns **Latitude (N):** 29 54' 00?" **Longitude (W):** 81 18' 30?"

Bay and sub-bays: St. Augustine Inlet

Directions to the site: St. Augustine; N side of St. Augustine Inlet; cove and fringing marsh.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata* and *Juncus roemerianus* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover by *Spartina* and high marsh. as of may-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Used a coquina rock revetment which subsided after awhile, but not before the marsh became established. Revetment placed at MLW broke the waves that were causing severe shoreline erosion.
- Marsh name: Porpoise Point

Marsh Inventory No.: 758 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 02/01/88

Area Planted (1acre = 0.4047 ha): 0.560 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: David Lavine (407) 452-2580 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 11' 35" **Longitude (W):** 81 00' 00?"

Bay and sub-bays: Halifax River

Directions to the site: Daytona Beach; Palmetto Ave N of Hwy 400; border of Daytona Beach and South Daytona; perimeter marsh along canal.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata, Sporobolus virginicus, Sesuvium portulacastrum, Avicennia germinans.*

Percent vegetative cover attained by the planted marsh: 100% cover by *Spartina* and high marsh species, as of Oct-93.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Mangroves died during subsequent freezes, but black mangrove seedlings are now re-establishing in the *Spartina*.
- Marsh name: Post Cove

Marsh Inventory No.: 759 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 04/01/88

Area Planted (1acre = 0.4047 ha): 8.721 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Steve Tonjes (904) 736-5445 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 00' 00" **Longitude (W):** 80 54' 00?"

Bay and sub-bays: Halifax River

Directions to the site: New Smyrna Beach; several sites in SE Volusia county; 7 sites mostly spoil islands that had been denuded by frost damage to mangrove forests.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 3'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 3-ft centers; *Avicennia germinans* seedlings were palnted on10-ft centers.

Percent vegetative cover attained by the planted marsh: 85-100% cover achieved by all planted areas, as of Feb-1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- Planting extended from April-Dec in 1988-90. Most of the mangroves died in freezes, but natural colonization has more than replaced them. Some *Spartina* areas are being displaced by mangroves volunteer seedlings.
- Marsh name: Lytle Ave. Bridge

Marsh Inventory No.: 777 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 06/01/78

Area Planted (1acre = 0.4047 ha): 0.061 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mrs. Coleman (904) 252-7246 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 08' 30" **Longitude (W):** 80 58' 00"

Bay and sub-bays: Halifax River

Directions to the site: Daytona Beach; Peninsula Drive 4 miles S of State Rd. 400; fringing shoreline marsh.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on center (=o.c.)

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens* and *Paspalum vaginatum* were planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 100% cover as of July-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina* has filled in completely and has spread 25' to the west. The marsh has protected the land from erosion.
- Marsh name: Henry Coleman

Marsh Inventory No.: 784 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 03/01/91

Area Planted (1acre = 0.4047 ha): 0.287 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Jeanne Tolley (904) 258-3117 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 13' 00?" **Longitude (W):** 81 01' 20"

Bay and sub-bays: Halifax River

Directions to the site: Daytona Beach; South Beach Street half mile S of U.S. Hwy 92; fringing intertidal shoreline along outer perimeter of boat harbor.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc. Port Orange, FL (904) 767-6232. *S. alterniflora* clumps were planted 2'on centers.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 2-ft centers; *Spartina bakeri.*

Percent vegetative cover attained by the planted marsh: 50-75% as of Oct-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- The high marsh and *Spartina alterniflora* are growing, but coverage is only 50-75%. There is no breakwater and the substrate is rocky which make complete coverage by the marsh difficult. Some replanting of *S. alterniflora* was needed.
- *S. alterniflora* clumps were planted 2'on centers. Marsh name: Halifax Harbor

Marsh Inventory No.: 621 **Information Rank (1-5):** 5 **State:** FL

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 0.280 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 08' 45" ? **Longitude (W):** 80 58' 55" ?

Bay and sub-bays: Halifax River

Directions to the site: Bouchelle Island; Port Orange

Source of planting information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505

Source of subsequent assessment information: (Roberts, 1991)

References or reports: (Roberts, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 74%, 1987

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries species, birds, mammals, and epibenthic snails.

General comments about the marsh:

- Marsh was successful. No birds; a few rats; several typically estuarine fish .
-

Marsh Inventory No.: 769 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 11/01/86

Area Planted (1acre = 0.4047 ha): 0.251 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Paul Kosmas (904) 427-6892 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 01' 00" **Longitude (W):** 80 54' 00"

Bay and sub-bays: ICW (Indian River North)

Directions to the site: New Smyrna Beach; State Rd. 44 (North Causeway); fringing marsh along ICW (Indian River North) and high marsh in protected cove.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* and *Distichlis spicata* wre planted on 2-ft centers.

Percent vegetative cover attained by the planted marsh: 95-100% cover by *Spartina* and high marsh, as of April-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. Dense saltmarsh established to replace freeze killed mangroves.
- Marsh name: Marina Bay.

Marsh Inventory No.: 768 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 03/01/83

Area Planted (1acre = 0.4047 ha): 0.328 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Alice Williamson (904) 756-0171 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 12' 00?" **Longitude (W):** 81 00' 00"

Bay and sub-bays: Indian River North

Directions to the site: Daytona Beach Shores; S. Peninsula Dr., 4 miles N of Dunlawton Ave.; created intertidal shoreline behind coquina rock revetment.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 1-ft centers.

Percent vegetative cover attained by the planted marsh: 100% by each species

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 1-ft centers. The revetment has allowed the plants from the planted area to expand down to the MLW line.
- Marsh name: C.B. Williamson

Marsh Inventory No.: 770 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 07/01/89

Area Planted (1acre = 0.4047 ha): 0.109 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: David Hopple (904) 253-5204 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 01' 40" **Longitude (W):** 80 55' 00?"

Bay and sub-bays: Indian River North

Directions to the site: New Smyrna Beach; N end of Atlantic Ave (A-1-A), narrow planting area between two coquina rock revetments.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Sporobolus virginicus* was planted on 1.5-ft centers.

Percent vegetative cover attained by the planted marsh: 90-100% as of Sept-93

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 1.5-ft centers. Shoreline stabilization project and native grass stormwater retention area.
- Marsh name: Spy Glass

Marsh Inventory No.: 781 **Information Rank (1-5):** 4 **State:** FL

Date Planted: 12/01/85

Area Planted (1acre = 0.4047 ha): 1.599 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Harriet hickox (904) 427-1239 is the contact person.

Location of the marsh.

State: FL **County:** Volusia **Latitude (N):** 29 04' 00?" **Longitude (W):** 80 58' 00?"

Bay and sub-bays: Indian River; Callalosa Creek

Directions to the site: New Smyrna Beach; State Rd. 44 between Indian River North and Callalosa Creek; fringing marsh completely surrounding N, E, and S sides of dredged material deposition island.

Source of planting information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

Source of subsequent assessment information: Mr. Steve Beeman, Ecoshores, Inc., Shoreline Associates, 3881 South Nova Road, Port Orange, FL 32127, (904) 767-6232.

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Distichlis spicata*, *Spartina patens*, *Paspalum vaginatum*, *Sporobolus virginicus*, *Batis maritima* and *Salicornia virginica* were planted on 2-ft centers; *Avicennia germinans*.

Percent vegetative cover attained by the planted marsh: 85-100% cover as of Nov-93.

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Not assessed.

General comments about the marsh:

- *Spartina alterniflora* clumps were planted on 2-ft centers. The construction of the sloping wood-slat breakwater has allowed the creation of a vegetated intertidal shoreline where severe wave erosion had existed.
- Marsh name: Bouchelle Island.

Marsh Inventory No.: 299 **Information Rank (1-5):** 3 **State:** ME

Date Planted: 1979

Area Planted (1acre = 0.4047 ha): 1.376 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Portland Water District

Location of the marsh.

State: ME **County:** Cumberland **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Atlantic Ocean; Fore River

Directions to the site: From stations 1+75 to station 22+45 north and south of Congress St., Portland, ME.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was10 pure live seed per sq. ft. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Fore River.

Marsh Inventory No.: 292 **Information Rank (1-5):** 3 **State:** ME

Date Planted: 05/01/78

Area Planted (1acre = 0.4047 ha): 1.619 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Portland Water District

Location of the marsh.

State: ME **County:** Cumberland **Latitude (N):** 43 40' 20?" **Longitude (W):** 70 15' 40?"

Bay and sub-bays: Casco Bay; Back Cove

Directions to the site: Between Vannah and George Sts., Portland, ME, on Back Cove.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: cove shoreline (linear). ME DEP Permit # 03-2153-05170. Bare spots noted in marsh at end of first growing season. Built by Environmental Concern, Inc.
- Marsh name: Back Cove

Marsh Inventory No.: 296 **Information Rank (1-5):** 3 **State:** ME

Date Planted: 1978

Area Planted (1acre = 0.4047 ha): 0.417 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Wells Sanitary District, P.O. Box 425, Wells ME 04090

Location of the marsh.

State: ME **County:** York **Latitude (N): Longitude (W):**

Bay and sub-bays: Altantic Ocean; Wells Harbor

Directions to the site: Contact the Wells Sanitary District (207) 646-5906 for specific directions.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Wells Sanitary District.

Marsh Inventory No.: 308 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 04/01/82

Area Planted (1acre = 0.4047 ha): 0.809 hectares

COE Permit No.: NABOP-FN-80-0085-2 **Date of COE Permit:**

Originator or Applicant for permit: Locke Insulators Inc.

Location of the marsh.

State: MD **County:** Baltimore City **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Chesapeake Bay; Patapsco River

Directions to the site: Between Potee and Hanover Sts., south of Reedbird Ave., Baltimore MD.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. .The site was destroyed by a suspected herbicide dumping.
- Marsh name: Locke Insulator

Marsh Inventory No.: 304 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 06/01/82

Area Planted (1acre = 0.4047 ha)**:** 0.372 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: MD State Highway Administration

Location of the marsh.

State: MD **County:** Baltimore City **Latitude (N): Longitude (W):**

Bay and sub-bays: Chesapeake Bay; Patapsco River

Directions to the site: Patapsco River at 6386 York Rd, Baltimore, MD.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : 5,363 *Scirpus americanus* were also planted on1.5-ft centers.

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 1.5-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. Application # NABOP-F80-013202. Permit # BC 246-42-815.
- Marsh name: City Garage Baltimore.

Marsh Inventory No.: 330 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/87

Area Planted (1acre = 0.4047 ha): 3.035 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: MD State Highway Administration

Location of the marsh.

State: MD **County:** Baltimore City **Latitude (N):** 39 12' 50" **Longitude (W):** 76 32' 15"

Bay and sub-bays: Chesapeake Bay; Patapsco River

Directions to the site: Southwestern shoulder of the Francis Scott Key Bridge at Hawkins Point.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: linear. Built by Environmental Concern, Inc. Federal Assistance Program # 1-95-4 (45) 31. MDSHA# BC-246-131-815.
- Marsh name: Hawkins Point.

Marsh Inventory No.: 329 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 09/01/88

Area Planted (1acre = 0.4047 ha): 0.971 hectares

COE Permit No.: NACOP-FW(Helfrich, G.W.)80-0244-2 **Date of COE Permit:**

Originator or Applicant for permit: George Helfrich, 1320 N. Monroe, Baltimore, MD 21217.

Location of the marsh.

State: MD **County:** Baltimore City **Latitude (N):** 39 15' 20" **Longitude (W):** 76 37' 40"

Bay and sub-bays: Chesapeake Bay; Patapsco River, Middle Branch

Directions to the site: Take the Baltimore-Washington Parkway east to the Waterview Ave. exit. Take Waterview Ave. east. The site is at the bottom slope of a landfill. Park at old landfill entrance and walk north , entrance is on the left.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc. . Garbage has floated into the marsh, covering some of it (March, 1993).
- Marsh name: Tower Marina

Marsh Inventory No.: 316 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 04/01/87

Area Planted (1acre = 0.4047 ha): 3.035 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Baltimore RESCO

Location of the marsh.

State: MD **County:** Baltimore City **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Chesapeake Bay; Patapsco River; Middle Branch.

Directions to the site: Adjacent to I-95, E of Annapolis Rd, and W of Swann Park, Baltimore MD.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: 2 sites: oval. Built by Environmental Concern, Inc.
- Marsh name: Rust International.

Marsh Inventory No.: 283 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/87

Area Planted (1acre = 0.4047 ha): 0.809 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Baltimore District Army Corps of Engineers

Location of the marsh.

State: MD **County:** Dorchester **Latitude (N):** 38 30' 10" **Longitude (W):** 76 17' 07"

Bay and sub-bays: Chesapeake Bay; Little Choptank River; Slaughter Creek.

Directions to the site: Cove facing Travers Cove on the S side of Hooper Point on Taylors Island and at the mouth of Slaughter Creek.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: Environmental Effects of Dredging Vol. D-88-6, Dec. 1988 WES, Vicksburg, MS.

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Marsh shape: semi-circle. Built by Environmental Concern, Inc. Contract # DACW 31-86-M-0339. This is a beneficial use of dredge spoil project.
- Marsh name: Slaughter Creek.

Marsh Inventory No.: 281 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/82

Area Planted (1acre = 0.4047 ha): 6.475 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Baltimore District Army Corps of Engineers.

Location of the marsh.

State: MD **County:** Dorchester **Latitude (N):** 38 20' 21" **Longitude (W):** 76 15' 30"

Bay and sub-bays: Chesapeake Bay; Tar Bay.

Directions to the site: In Tar Bay just 1 km off the NE tip of Barren Island.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Earhart & Garbisch,1983)

References or reports: (Earhart & Garbisch,1983)

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*

Percent vegetative cover attained by the planted marsh: Estimated to be >50% as of 1983

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Marsh shape: irregular. Built by Environmental Concern, Inc. This was a beneficial use of dredged material project.
- Marsh name: Barren Island #1.

Marsh Inventory No.: 315 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 07/01/83

Area Planted (1acre = 0.4047 ha): 6.475 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Baltimore District Army Corps of Engineers.

Location of the marsh.

State: MD **County:** Dorchester **Latitude (N):** 38 20' 20" **Longitude (W):** 76 15' 31"

Bay and sub-bays: Chesapeake Bay; Tar Bay.

Directions to the site: Northeast side of Barren Island, facing Tar Bay.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Marsh shape: irregular. Built by Environmental Concern, Inc. Contract # DACW31-81-C-0073. This was a beneficial use of dredge spoil project.
- Marsh name: Barren Island #2.

Marsh Inventory No.: 317 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 1985

Area Planted (1acre = 0.4047 ha): 0.931 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: US Army COE, Baltimore District

Location of the marsh.

State: MD **County:** Northumberland **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Chesapeake Bay; Little Wicomico River

Directions to the site: Rt. 652 at Smith Point at the mouth of the Little Wicomico River.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. COE Contract # DACW31-85-C-0015. This is a dredge spoil planting project.
- Marsh name: Little Wicomico Planting.

Marsh Inventory No.: 324 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/87

Area Planted (1acre = 0.4047 ha): 0.769 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Dutton and Garfield Inc., P.O. Box 746, Manchester, NH 03105.

Location of the marsh.

State: MD **County:** Queen Annes **Latitude (N):** 38 58' 25" **Longitude (W):** 76 15' 00"

Bay and sub-bays: Chesapeake Bay; Eastern Bay; Prospect Bay; Kent Narrows

Directions to the site: In the SE corner of Egg Harbor just W of Kent Narrows Rd. and N of US Hwy. 50.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : 0.8 acres of *Typha angustifolia* and 0.8 acres of *Scirpus americanus.*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Eastern Shore Outlet Center.

Marsh Inventory No.: 322 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 06/01/86

Area Planted (1acre = 0.4047 ha): 0.607 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Ellwood Thompson

Location of the marsh.

State: MD **County:** Queen Annes **Latitude (N):** 38 57' 12" **Longitude (W):** 76 13' 45"

Bay and sub-bays: Chesapeake Bay; Eastern Bay; Prospect Bay; Marshy Creek

Directions to the site: Cove on S margin of Marshy Creek just 4 km WSW of Grasonville.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Marsh shape: half-moon. Built by Environmental Concern, Inc.
- Marsh name: Oyster Cove.

Marsh Inventory No.: 289 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 04/01/76

Area Planted (1acre = 0.4047 ha): 0.018 hectares

COE Permit No.: NABOP-F/4 (Corinthiam Yacht Club) 73-30 **Date of COE Permit:**

Originator or Applicant for permit: Corinthian Yacht Club, Ridge, MD. 20680

Location of the marsh.

State: MD **County:** St. Mary's **Latitude (N):** 38 07' 05" **Longitude (W):** 76 23' 48"

Bay and sub-bays: Chesapeake Bay; Smith Creek; Jutland Creek; Deep Cove

Directions to the site: At the eastern corner of the mouth of Deep Cove as it enters Jutland Creek, about i km NE of Wynne, St. Mary's County, MD. Planted behind a bulkhead.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 1-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc.
- Marsh name: Corinthian Yacht Club.

Marsh Inventory No.: 327 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 06/01/88

Area Planted (1acre = 0.4047 ha): 0.344 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: MD State Highway Administration.

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 35' 45" **Longitude (W):** 76 01' 00?"

Bay and sub-bays: Chesapeake Bay; Choptank River, Bolingbroke Creek

Directions to the site: W shore of Bolingbroke Creek about 0.5 km N of where it opens into the Choptank River, at Highlys Beach.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc.
- Marsh name: Choptank River Bridge.

Marsh Inventory No.: 341 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/91

Area Planted (1acre = 0.4047 ha): 0.016 hectares

COE Permit No.: CENAB-OP-RS(BALDWIN,WH) 89-1221-4 **Date of COE Permit:**

Originator or Applicant for permit: William Baldwin

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 51' 08" **Longitude (W):** 76 15' 55"

Bay and sub-bays: Chesapeake Bay; Harris Creek, Dogwood Harbor

Directions to the site: Between Dogwood Harbor Rd and South Absontown Rd, at Dogwood Harbor on Tilghman Island, MD.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline, rectangular. Built by Environmental Concern, Inc.
- Marsh name: Blue Haven.

Marsh Inventory No.: 320 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 04/01/86

Area Planted (1acre = 0.4047 ha)**:** 0.607 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Walter Johnston Seedling

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 47' 02" **Longitude (W):** 76 10' 50"

Bay and sub-bays: Chesapeake Bay; Miles River

Directions to the site: On Marengo Farm Rd. at Hunting Creek.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. This was a MD State Tidelands violation and settlement approved by the Baltimore District COE.
- Marsh name: Johnston. MD State Wetlands License # 81-WL-0111(R). Notice of violation #'s 85WV051 and 85WV052. Waterfowl damage happened after planting.

Marsh Inventory No.: 325 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/73

Area Planted (1acre = 0.4047 ha)**:** 0.809 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: US Army COE, Fort Belvoir, VA

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 51' 20" **Longitude (W):** 76 15' 55"

Bay and sub-bays: Chesapeake Bay; San Domingo Creek

Directions to the site: 9 km NNW of St. Michaels, on the NW facing shore about 1.5 km SW of Tilghman Point,

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Garbisch, Woller, & McCallum, 1975)

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Hambleton Island Breach. COE Contract # DACW72-73-C-0009.

Marsh Inventory No.: 282 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/73

Area Planted (1acre = 0.4047 ha)**:** 0.809 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: US Army COE, Fort Belvoir, VA

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 45' 15" **Longitude (W):** 76 13' 55"

Bay and sub-bays: Chesapeake Bay; San Domingo Creek

Directions to the site: 3.5 km S of St. Michaels in the mouth of San Domingo Creek at the breach in Hambleton Island.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Garbisch, Woller, & McCallum, 1975)

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Hambleton Island Breach. COE Contract # DACW72-73-C-0009.

Marsh Inventory No.: 626 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/73

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit:

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 41' 10" **Longitude (W):** 76 11' 40"

Bay and sub-bays: Chesapeake Bay; Tred Avon River

Directions to the site: Directly W across the Tred Avon River from Oxford, MD.; on Ferry Neck peninsula.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc.
- Marsh name: Bachelor Point No.1.

Marsh Inventory No.: 343 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 05/01/87

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: NABOP-RS-(Bachelor's Point) 86-0741-1 **Date of COE Permit:**

Originator or Applicant for permit: Bachelor Point Harbor Marina

Location of the marsh.

State: MD **County:** Talbot **Latitude (N):** 38 40' 32" **Longitude (W):** 76 10' 35"

Bay and sub-bays: Chesapeake Bay; Tred Avon River

Directions to the site: Directly S from Oxford, MD., on the Tred Avon River shore at the Bachelor Point Harbor.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc.
- Marsh name: Bachelor Point No.2.

Marsh Inventory No.: 318 **Information Rank (1-5):** 3 **State:** MD

Date Planted: 1985

Area Planted (1acre = 0.4047 ha): 2.926 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Merritt Commercial Saving and Loan Association.

Location of the marsh.

State: MD **County:** Worcester **Latitude (N): Longitude (W):**

Bay and sub-bays: Assawoman Bay

Directions to the site: Between North and South Heron Drives, Ocean City, MD.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was10 pure live seed per sq. ft. Marsh shape: oval. Built by Environmental Concern, Inc.
- Marsh name: Heron Harbor. MD Tidal Division Case # 82-WL-0255 (R). Some seeding failure occurred and peat potted plants were later installed.

Marsh Inventory No.: 303 **Information Rank (1-5):** 3 **State:** MA

Date Planted: 05/01/81

Area Planted (1acre = 0.4047 ha): 1.093 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Massachusetts Metropolitan District Commission

Location of the marsh.

State: MA **County:** Suffolk **Latitude (N):** 42 23' 35" **Longitude (W):** 70 59' 35"

Bay and sub-bays: Massachusetts Bay; Boston Harbor; President Roads; Winthrop Bay; Belle Isle Inlet.

Directions to the site: Belle Isle marsh reservation park, East Boston MA. Rt. 60 in Boston, just past Suffolk Downs Race track, left at traffic light. At next major intersection take left on Bennington St. Go about 1 mile. Site entrance on right across from the track.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: fringe on shoreline of a canal. Built by Environmental Concern, Inc. Initial planting problems occurred due to high salinity and rubble substrate.
- Marsh name: Belle Isle Marsh, MA.

Marsh Inventory No.: 305 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1981

Area Planted (1acre = 0.4047 ha)**:** 0.405 hectares

COE Permit No.: NAPOP-R-N80-17 **Date of COE Permit:**

Originator or Applicant for permit: Scarborough Corp., P.O. Box 387, Marlton, NJ 08053.

Location of the marsh.

State: NJ **County:** Atlantic **Latitude (N):** 39 25' 10" **Longitude (W):** 74 30' 00?"

Bay and sub-bays: Absecon Creek

Directions to the site: Just south (approx. 150') of Cortez Ave. and the intersection of Lisbon Ave., Absecon City, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. patens* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Scarborough.

Marsh Inventory No.: 332 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/81

Area Planted (1acre = 0.4047 ha): 0.081 hectares

COE Permit No.: NAPOP-R-78-12226-3 **Date of COE Permit:** 1978

Originator or Applicant for permit: Harrah's Resorts.

Location of the marsh.

State: NJ **County:** Atlantic **Latitude (N):** 39 22?' **Longitude (W):** 74 25?'

Bay and sub-bays: Absecon Inlet

Directions to the site: The marina at Harrah's Resort, Atlantic City, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc.
- Marsh name: Harrah's Marina.

Marsh Inventory No.: 342 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/83

Area Planted (1acre = 0.4047 ha)**:** 0.073 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Scarboro-DiSabatino Construction, Suite 25, Barclay Pavilion, Rt. 70, Cherry Hill, NJ.

Location of the marsh.

State: NJ **County:** Atlantic **Latitude (N):** 39 19' 02" **Longitude (W):** 74 36' 50"

Bay and sub-bays: Gt. Egg Harbor Inlet Ship Channel; Bass Harbor.

Directions to the site: In the Somers Point Yacht Harbor.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: oval. Built by Environmental Concern, Inc.
- Marsh name: Somers Point Yacht Harbor.

Marsh Inventory No.: 340 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: CENAB-OP-R-80-03968-12 **Date of COE Permit:**

Originator or Applicant for permit: Shapiro Ripps, Trump Tower, 725 5 th Ave., NY, NY 10022.

Location of the marsh.

State: NJ **County:** Atlantic **Latitude (N):** **Longitude (W):**

Bay and sub-bays:

Directions to the site: Lot 103, Block A-59, Holgate, NJ. At the end of Rosemma Ave., in Holgate, in back of the lot at the center of the Cul-de-sac.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. Marsh name: Shapiro Ripps. This was a restoration project required for illegal fill activity.
-

Marsh Inventory No.: 319 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): 30.353 hectares

COE Permit No.: 12746 **Date of COE Permit:**

Originator or Applicant for permit: Hartz Mountain Development

Location of the marsh.

State: NJ **County:** Bergen **Latitude (N):** 40 48' 03" **Longitude (W):** 74 33' 05"

Bay and sub-bays: Newark Bay; Hackensack River; Cromakill Creek.

Directions to the site: Secaucus, east side of the eastern spur of the NJ Toll Road.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seed per sq. ft. Built by Environmental Concern, Inc. Vegetation establishment has been problematic in some areas.
- Marsh name: Hartz Mountain Industries Eastern Brackish Marsh. Don Smith, Hackensack Meadowland Development Commission (201) 460-1700 can give a tour of the site.

Marsh Inventory No.: 311 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 06/01/83

Area Planted (1acre = 0.4047 ha): 1.174 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: NJ Turnpike Authority

Location of the marsh.

State: NJ **County:** Bergen **Latitude (N):** 40 50' 05" **Longitude (W):** 74 33' 00"

Bay and sub-bays: Newark Bay; Hackensack River

Directions to the site: Immediately south of the Vince Lombardi service area at the junction of the eastern and western spurs of the NJ Turnpike, south of exit 18E.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Built by Environmental Concern, Inc. NJ Turnpike Authority Contract # 780. Originally, the planting failed due to deconsolidated sediments which would not support plant overwintering.
- Goose and Muskrat predation was also a problem. The site is now a mixture of mudflat, Eleocharis flat, and Cordgrass. Marsh shape-basin. Marsh name: NJ Turnpike Authority.

Marsh Inventory No.: 331 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1989

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: 14622 **Date of COE Permit:**

Originator or Applicant for permit: Hackensack Meadowlands Development Commission.

Location of the marsh.

State: NJ **County:** Bergen **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Newark Bay; Mill Creek, Hackensack River

Directions to the site: At the end of Valley Brook Ave., Lyndhurst, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc. Application # 87-0596-JI. Goose damage was a problem at this site.
- Don Smith, Hackensack Meadowland Development Commission (201) 460-1700 can give a tour of the site. Marsh name: Hackensack Meadowlands Development Commission 440 Shoreline.

Marsh Inventory No.: 684 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 3.642 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Hackensack Meadowlands Development Commission.

Location of the marsh.

State: NJ **County:** Bergen **Latitude (N):** 40 48' 50" **Longitude (W):** 74 08' 03"

Bay and sub-bays: Newark Bay; Mill Creek, Hackensack River

Directions to the site: Lyndhurst, NJ, next to the NJ Turnpike and bordered by Berry's Creek on the N and a branch of Mary Ann's Creek to the S.

Source of planting information: Dr. Michael P. Bontje, B. Laing Associates, Environmental Science, 225 Main Street, Northport, NY 11768, (516) 261-7170

Source of subsequent assessment information: (Bontje, 1991)

References or reports: (Bontje, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- *S. alterniflora* was planted on 3-ft centers using 3-4 stem peat pot. Marsh borders two tidal creek channels. Built by Environmental Concern, Inc.
- Appeared to be growing, but was too early to tell. Bird population had already increased, so people were optimistic about the future success of the project.

Marsh Inventory No.: 306 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 04/01/81

Area Planted (1acre = 0.4047 ha): 1.619 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: US Army COE, New York District.

Location of the marsh.

State: NJ **County:** Essex **Latitude (N):** 40 38' 00?" **Longitude (W):** 74 15' 00?"

Bay and sub-bays: Newark Bay; Elizabeth River

Directions to the site: The Elizabeth River at the Joint Meeting sewage treatment plant, South First St., Elizabeth, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. COE Contract # DACW-78-C-0050
- Marsh name: Elizabeth Marsh.

Marsh Inventory No.: 323 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 1985

Area Planted (1acre = 0.4047 ha)**:** 30.353 hectares

COE Permit No.: 12746 **Date of COE Permit:**

Originator or Applicant for permit: Hartz Mountain Development

Location of the marsh.

State: NJ **County:** Hudson **Latitude (N):** 40 48' 03" **Longitude (W):** 74 33' 08"

Bay and sub-bays: Newark Bay; Hackensack River; Mill Creek.

Directions to the site: Secaucus, west side of the eastern spur of the NJ Toll Road.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Bontje, 1988)

References or reports: (Bontje, 1988)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fish, birds and mammals were assessed (Bontje, 1988).

General comments about the marsh:

- Planting density of *S. alterniflora* was 10 pure live seeds per sq. ft. Built by Environmental Concern, Inc. Fairly well established cordgrass population. Animal damage is prevalent in some areas.
- Marsh name: Hartz Mountain Western Brackish Marsh. Don Smith, Hackensack Meadowland Development Commission (201) 460-1700 can give a tour of the site.

Marsh Inventory No.: 344 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/89

Area Planted (1acre = 0.4047 ha): 0.243 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Dresdner, Robin and Associates

Location of the marsh.

State: NJ **County:** Hudson **Latitude (N):** 40 41' 50" **Longitude (W):** 74 03' 30"

Bay and sub-bays: Upper New York Bay; Hudson River.

Directions to the site: Along the south and east facing shoreline at the Water's Edge renovation area a few blocks N of the Morris Canal Basin, Jersey City.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environmental Concern, Inc.
- Marsh name: Newport.

Marsh Inventory No.: 301 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 04/01/78

Area Planted (1acre = 0.4047 ha): 0.890 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: William R. Cesare or James C. DeCesare

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 41' 16" **Longitude (W):** 74 09' 00"

Bay and sub-bays: Barnegat Bay (S of inlet)

Directions to the site: Point of land immediately east of Lagoon Drive West, Harvey Cedars NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. NJ Federal District Court Action # 77-1176.
- Marsh name: Long Beach NJ.

Marsh Inventory No.: 334 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 08/01/86

Area Planted (1acre = 0.4047 ha): 0.243 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: West Bay Point Inc.

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 51' 27" **Longitude (W):** 74 08' 05"

Bay and sub-bays: Barnegat Bay N of Barnegat Bay Inlet; Laurel Harbor

Directions to the site: Along the shoreline of Laurel Harbor Subdivision, Lacey Township, Ocean County, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: horseshoe. Built by Environmental Concern, Inc. NJ CAFRA Permit # 85-0716-5.
- Marsh name: Laurel Harbor.

Marsh Inventory No.: 337 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/89

Area Planted (1acre = 0.4047 ha): 0.130 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Michael Reed Construction Co.

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 44' 20" **Longitude (W):** 74 07' 05"

Bay and sub-bays: Barnegat Bay S of Barnegat Inlet

Directions to the site: Block T-166, Lots 6 and 7 on the bay shore just S of Holly Lagoons housing development, Long Beach Township, Ocean County, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc. US District Court (NJ) Action # 87-552(GEB).
- Marsh name: Michael Reed.

Marsh Inventory No.: 295 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/78

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Ocean County Sewerage Authority

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 39' 16 **Longitude (W):** 74 11' 00"

Bay and sub-bays: Barnegat Bay; Manahawkin Bay

Directions to the site: Along sewer line on Bonnett Island and along access road at Ship Bottom shore, near where Rt. 72 crosses Manahawkin Bay to Ship Bottom, on Long Beach Island, NJ.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: linear. Built by Environmental Concern, Inc. EPA sewage treatment grant, project # C-34-371-01. Contract #'s SI-2,SI-3,SI-6.
- High salinity at sights required replanting in October of 1978. Marsh name: Ocean County Sewage Authority.

Marsh Inventory No.: 294 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/78

Area Planted (1acre = 0.4047 ha): 1.619 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Ocean County Sewerage Authority

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 39' 33" **Longitude (W):** 74 11' 45"

Bay and sub-bays: Barnegat Bay; Manahawkin Bay

Directions to the site: Along the footing of the NJ Rt. 72 causeway on Cedar Bonnett Island in Manahawkin Bay just W of Ship Bottom, NJ. Work was done on northern edge of Rt. 72.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: linear. Built by Environmental Concern, Inc. EPA sewage treatment grant, project # C-34-371-01. Contract #'s SI-2,SI-3,SI-6.
- High salinity at sights required replanting in October of 1978. Marsh name: Ocean County Sewage Authority.

Marsh Inventory No.: 293 **Information Rank (1-5):** 3 **State:** NJ

Date Planted: 05/01/78

Area Planted (1acre = 0.4047 ha)**:** 0.809 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Ocean County Sewerage Authority

Location of the marsh.

State: NJ **County:** Ocean **Latitude (N):** 39 40' 10" **Longitude (W):** 74 12' 58"

Bay and sub-bays: Barnegat Bay; Manahawkin Bay

Directions to the site: Along the base of the causeway where Rt. 72 begins to cross Manahawkin Bay over to Ship Bottom, NJ. Work was done on northern edge of Rt. 72.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: linear. Built by Environmental Concern, Inc. EPA sewage treatment grant, project # C-34-371-01. Contract #'s SI-2,SI-3,SI-6.
- High salinity at sights required replanting in October of 1978. Marsh name: Ocean County Sewage Authority.

Marsh Inventory No.: 335 **Information Rank (1-5):** 3 **State:** NY

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: NY City DEP

Location of the marsh.

State: NY **County:** Richmond **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Great Kills Harbor

Directions to the site: South of Tennyson Drive, east of Robinson Ave., west of Glovar Ave., Staten Island, NY.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: oval. Built by Environmental Concern, Inc. New York City Environmental Conservation Order on Consent R2 0155-85-11.
- Marsh name: Staten Island, NY.

Marsh Inventory No.: 339 **Information Rank (1-5):** 3 **State:** NY

Date Planted: 06/01/89

Area Planted (1acre = 0.4047 ha): 0.073 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Northport Marina Associates

Location of the marsh.

State: NY **County:** Suffolk **Latitude (N):** 40 53' 30" **Longitude (W):** 73 21' 26"

Bay and sub-bays: Long Island Sound; Huntington Bay; Northport Bay; Northport Harbor.

Directions to the site: Shore immediately N of the Admirals Yacht Club and Marina and about 25 m S of the Scudder Park boat launch ramp.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: oval. Built by Environmental Concern, Inc. NY DEC # 10-86-0780.
- Marsh name: Northport Admirals Yacht Club and Marina.

Marsh Inventory No.: 627 **Information Rank (1-5):** 4 **State:** NC

Date Planted: 1973

Area Planted (1acre = 0.4047 ha): hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: C.S. Benner, research

Location of the marsh.

State: NC **County:** **Latitude (N):** 36 10' 45" **Longitude (W):** 75 45' 30"

Bay and sub-bays: Albermarle Sound; Currituck Sound

Directions to the site: On the Currituck Sound shore of the barrier island, at the COE CERC Field Research Facility, Duck, NC.

Source of planting information: (C.S. Benner et al, 1982)

Source of subsequent assessment information: (Benner et al, 1982)

References or reports: (Benner et al, 1982)

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*, *Spartina cynosuroides*, *Juncus roemerianus*, *Fimbristylis spadicea*, *Phragmites australis*, *A. breviligulata*, *Panicum amarulum*, and *Typha latifolia*.

Percent vegetative cover attained by the planted marsh: >70%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? no

General comments about the marsh:

- Several profile surveys have been made of the planted area, one in 1978, 1979, 1980 and 1981. The vegetation continued to expand each year, but the unvegetated control area remained bare during this same period.

-

Marsh Inventory No.: 307 **Information Rank (1-5):** 3 **State:** SC

Date Planted: 1981

Area Planted (1acre = 0.4047 ha)**:** 3.238 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: City of North Charleston

Location of the marsh.

State: SC **County:** Dorchester **Latitude (N): Longitude (W):**

Bay and sub-bays: Cooper River

Directions to the site: Basin #1, east of Spruill Ave. and north of Token St. Basin #2, east of Chicora Ave., and north of Quitman St. and Baxter St., west of Spruill Ave. Basin #3, west of Chicora Ave., south of Orvid St., North Charleston, SC.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planting density of *S. alterniflora* was10 pure live seed per sq. ft. Marsh shape: 3 oval basins. Built by Environmental Concern, Inc. This was HUD project Chicora Retention Basin, Project # B-80-MC-45-0005-28.
- Marsh name: City of North Charleston, SC.

Marsh Inventory No.: 664 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 0.121 hectares

COE Permit No.: 15105/1 **Date of COE Permit:** 1983

Originator or Applicant for permit: Dorchester Exploration, Inc.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 27 56' 00" **Longitude (W):** 97 02' 32"

Bay and sub-bays: Aransas Bay

Directions to the site: ST. 260, about 6 mi S. of Rockport; on the SW corner of Mud Island.

Source of planting information: Mr. Gary Galbraith, Espey, Huston & Ass, Inc., (512) 327-6840

Source of subsequent assessment information: Gary Galbraith

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 50%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted by Espey Huston. Evaluated in 1987, lots of erosion, wave energy to high. Western 400' of 871' X 50' planted has failed.
-

Marsh Inventory No.: 179 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: 18172 **Date of COE Permit:** 11/03/87

Originator or Applicant for permit: City of Rockport

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 01' 56" **Longitude (W):** 97 02' 55"

Bay and sub-bays: Aransas Bay

Directions to the site: Along the W shore of Little Bay at Rockport, TX

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 686 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1988

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Kontiki Condos

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 06' 05" **Longitude (W):** 97 01' 47"

Bay and sub-bays: Aransas Bay

Directions to the site: In a bayou just SW of Live Oak Pt, on Aransas Bay 0.5 mi S of the base of the causeway.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: >70%, 1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Very successful (>70% cover).
-

Marsh Inventory No.: 239 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 0.101 hectares

COE Permit No.: 13679 **Date of COE Permit:**

Originator or Applicant for permit: Bishop Ship-building Corp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 27 54' 47" **Longitude (W):** 97 07' 50"

Bay and sub-bays: Aransas Bay; Redfish Bay

Directions to the site: N end of the harbor along the NE side; in Aransas Pass

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-
-

Marsh Inventory No.: 177 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE ?

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 27 52' 10" **Longitude (W):** 97 05' 55"

Bay and sub-bays: Aransas Bay; Redfish Bay

Directions to the site: Stedman Island, SW side.

Source of planting information:

Source of subsequent assessment information: Dr. Thomas Minello, National Marine Fisheries Service, 4700 Ave. U, Galveston, TX 77551, (409) 766-3506

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: >70%, 1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Aquatic organisms.

General comments about the marsh:

- The marsh is well established. It was sampled for fish, shellfish, and benthic invertebrates, as well as macro-organic matter
-

Marsh Inventory No.: 236 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.061 hectares

COE Permit No.: 11405 **Date of COE Permit:**

Originator or Applicant for permit: Mitchell Energy Exp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 10' 45" **Longitude (W):** 96 57' 45"

Bay and sub-bays: Aransas Bay; St. Charles Bay

Directions to the site: State tracts (ST.) 69 and 387, near Rockport

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

Marsh Inventory No.: 685 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1988

Area Planted (1acre = 0.4047 ha): 0.101 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Northpoint Marina

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 03' 00" **Longitude (W):** 97 13' 45"

Bay and sub-bays: Copano Bay

Directions to the site: In Port Bay on N side on small peninsula between Italian Bend and Rattlesnake Point.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport. TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Partial Success (>10% cover).
-

Marsh Inventory No.: 690 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: SCS - Bayside, TX

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 05' 45" **Longitude (W):** 97 12' 20"

Bay and sub-bays: Copano Bay

Directions to the site: Along the NW shore of Copano Bay at Bayside

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Partial Success (>10% cover). 600 sq. ft.
-

Marsh Inventory No.: 689 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.121 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: SCS - Bayside, TX

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 05' 30" **Longitude (W):** 97 12' 30"

Bay and sub-bays: Copano Bay

Directions to the site: Along the NW shore of Copano Bay at Bayside

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: >70%, 1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful.
-

Marsh Inventory No.: 688 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.121 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: SCS - Bayside, TX

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 05' 15" **Longitude (W):** 97 12' 45"

Bay and sub-bays: Copano Bay

Directions to the site: Along the NW shore of Copano Bay at Bayside

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: >70%, 1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Very successful.
-

Marsh Inventory No.: 687 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.008 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: SCS - Bayside, TX

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 05' 05" **Longitude (W):** 97 12' 55"

Bay and sub-bays: Copano Bay

Directions to the site: Along the NW shore of Copano Bay at Bayside

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: >70%, 1992

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful, 1,000 sq. ft.
-

Marsh Inventory No.: 248 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): 0.304 hectares

COE Permit No.: 17075 **Date of COE Permit:**

Originator or Applicant for permit: Wilmar Development Corp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 01' 45" **Longitude (W):** 97 07' 52"

Bay and sub-bays: Copano Bay; Port Bay

Directions to the site: Cape Valero Subdiv., about 5 mi W. of Rockport

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).
-

Marsh Inventory No.: 692 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.364 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mitchell Energy Exp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 10' 10" **Longitude (W):** 96 52' 20"

Bay and sub-bays: Mesquite Bay

Directions to the site: Mesquite Bay side of spoil banks, S of ANWR.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport. TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).
-

Marsh Inventory No.: 691 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 3.035 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mitchell Energy Exp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 09' 56" **Longitude (W):** 96 52' 18"

Bay and sub-bays: Mesquite Bay

Directions to the site: S. side of the Aransas National Wildlife Refuge.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).
-

Marsh Inventory No.: 692 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.364 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mitchell Energy Exp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 10' 10" **Longitude (W):** 96 52' 20"

Bay and sub-bays: Mesquite Bay

Directions to the site: Mesquite Bay side of spoil banks, S of ANWR.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).

Marsh Inventory No.: 691 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 3.035 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Mitchell Energy Exp.

Location of the marsh.

State: TX **County:** Aransas **Latitude (N):** 28 09' 56" **Longitude (W):** 96 52' 18"

Bay and sub-bays: Mesquite Bay

Directions to the site: S. side of the Aransas National Wildlife Refuge.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).
-

Marsh Inventory No.: 715 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha)**:** 0.809 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Brazoria **Latitude (N):** 29 10' 28" **Longitude (W):** 95 05' 33"

Bay and sub-bays: Galveston Bay; West Bay.

Directions to the site: Along the NW shore of West Bay infront of the SE corner of Halls Lake.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: <10

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Too steep a slope and short a planting area; too deep to put in a breakwater so the 4-5 mi fetch in the prevailing wind direction was too much. The planting washed out within a few months. Failure.
-

Marsh Inventory No.: 705 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 06/01/83

Area Planted (1acre = 0.4047 ha): 6.071 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Brazoria **Latitude (N):** 29 10' 42" **Longitude (W):** 95 06' 55"

Bay and sub-bays: Galveston Bay; West Bay; Chocolate Bay.

Directions to the site: Along the SE shore of Chocolate Bay at Alligator Point.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. Thomas Minello, National Marine Fisheries Service, 4700 Ave. U, Galveston, TX 77551, (409) 766-3506

References or reports: (Espey, Huston & Assoc., Inc., 1988)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries and benthic organisms.

General comments about the marsh:

- Fairly well protected, only subject to N wind waves.
-

Marsh Inventory No.: 698 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 07/01/92

Area Planted (1acre = 0.4047 ha): 0.008 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Seadrift

Location of the marsh.

State: TX **County:** Calhoun **Latitude (N):** 28 24' 30" **Longitude (W):** 96 42' 30"

Bay and sub-bays: San Antonio Bay

Directions to the site: Along the N shore (facing S) just to the E of the boat docks and fish houses.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 680 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1989

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Harlingen St. Bank

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** 26 06' 48" **Longitude (W):** 97 10' 25"

Bay and sub-bays: Laguna Madre

Directions to the site: 3 mi N of new causeway on the laguna side of Padre Island.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 15

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Partial Success (>10% cover). 900 sq. ft.
-

Marsh Inventory No.: 681 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1990

Area Planted (1acre = 0.4047 ha)**:** 0.040 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: NCNB, Texas

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** 26 04' 40" **Longitude (W):** 97 10' 03"

Bay and sub-bays: Laguna Madre

Directions to the site: South of the old Queen Isabella Causeway.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 15

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Partial Success (>10% cover). 2,000 sq. ft.
-

Marsh Inventory No.: 246 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: 16564 **Date of COE Permit:**

Originator or Applicant for permit: J.M. Inhofe

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** (26 04' 30") **Longitude (W):** (97 10' 00")

Bay and sub-bays: Laguna Madre; Lower Laguna Madre

Directions to the site: W. end of Capricorn St., S. Padre Isl.

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 244 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: 15883 **Date of COE Permit:**

Originator or Applicant for permit: Settlement II (Laguna del Sol)

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** (26 04' 30") **Longitude (W):** (97 10' 00")

Bay and sub-bays: Laguna Madre; Lower Laguna Madre

Directions to the site: Laguna del Sol Condo's, W end of Venus and Jupiter Sts.,S. Padre Isl.

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-
-

Marsh Inventory No.: 243 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: 15832 **Date of COE Permit:**

Originator or Applicant for permit: Settlement II (Laguna del Sol)

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** (26 04' 30") **Longitude (W):** (97 10' 00")

Bay and sub-bays: Laguna Madre; Lower Laguna Madre

Directions to the site: N. end of Laguna Circle North, S. Padre Isl.

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 242 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.012 hectares

COE Permit No.: 15341 **Date of COE Permit:**

Originator or Applicant for permit: Starrett Construction Co.

Location of the marsh.

State: TX **County:** Cameron **Latitude (N):** (26 04' 30") **Longitude (W):** (97 10' 00")

Bay and sub-bays: Laguna Madre; Lower Laguna Madre

Directions to the site: W. end of Constellation Dr., S. Padre Isl.

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-
-

Marsh Inventory No.: 269 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1987

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Jackson Ranch

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 34' 10" **Longitude (W):** 94 40' 00"

Bay and sub-bays: Galveston Bay

Directions to the site: Lake Steveson, southwest corner. Lone Oak Bayou worked into Lake Stevenson.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 5% *S. alterniflora* shoot survival 5 years later; 60% shoots with seed. California bulrush (*Scirpus californica*) is out competing *S. alterniflora* Failure (0-15%).
- Seidensticker's Plot#3

Marsh Inventory No.: 717 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1970

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Private owner

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 31' 20" **Longitude (W):** 94 45' 55"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: S facing shore of Smith Point.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 714 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1973

Area Planted (1acre = 0.4047 ha)**:** 0.405 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: U.S. FWS Anahuac National Wildlife Refuge; J. Webb; COE

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 33' 45" **Longitude (W):** 94 29' 15"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: Anahuac Refuge, along the SE shore of the refuge just 0.25 mi W of mouth of Oyster Bayou

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

- This was Webb's dissertation study area. Many of the plantings were washed out.

Marsh Inventory No.: 196 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1978

Area Planted (1acre = 0.4047 ha): 0.005 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: U.S. FWS Anahuac National Wildlife Refuge; Boyscouts

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 34' 05" **Longitude (W):** 94 32' 00"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: Anahuac Refuge, West Refuge Road until it hits the bay; planting is on the bay side of the road.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Boyscouts did the transplanting.
-

Marsh Inventory No.: 268 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1958

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Brown Foundation

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 33' 25" **Longitude (W):** 94 36' 50"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: West windmill 1957-58; on N side of East Bay.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 85% *S. alterniflora* shoot survival several years later; spread from 1,300 to 1,800 ft width. Hurricane Carla wiped out a good portion of it. Good development.
-

Marsh Inventory No.: 273 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1986

Area Planted (1acre = 0.4047 ha): hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: U.S. FWS Anahuac National Wildlife Refuge

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 34' 05" **Longitude (W):** 94 32' 00"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: Just southeast of plot 7.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 80% shoot survival 13 months later. Good success.
- Seidensticker's Plot#6

Marsh Inventory No.: 272 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1986

Area Planted (1acre = 0.4047 ha)**:** 0.010 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: U.S. FWS Anahuac National Wildlife Refuge

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 34' 05" **Longitude (W):** 94 32' 00"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: Anahuac Refuge, West Refuge Road until it hits the bay; planting is on the bay side of the road.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 90% shoot survival 12 months later. Small area planted behind a rock pyramid wavebreak. Excellent (85-100%).
- Seidensticker's Plot#7

Marsh Inventory No.: 267 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1987

Area Planted (1acre = 0.4047 ha): 0.330 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Brown Foundation

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 32' 30" **Longitude (W):** 94 40' 30"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: On the north shore of East Bay, even with the east end of Lake Surprize

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 70% *S. alterniflora* shoot survival 5 yrs later; slight blight attack; moderate cattle grazing. Good (65-85%). 1,200 ft of plastic snow fence used as wave dampening device.
- Seidensticker's Plot#1

Marsh Inventory No.: 270 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1988

Area Planted (1acre = 0.4047 ha): 0.324 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Brown Foundation

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 33' 25" **Longitude (W):** 94 36' 50"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: West windmill on N side of East Bay; seawall addition in 1988 just to west of original planting.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 85% *S. alterniflora* shoot survival 4 years later; spread and joined with the marsh that was planted in 1958. Good development.
- Seidensticker's Plot#2

Marsh Inventory No.: 271 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1989, 1990

Area Planted (1acre = 0.4047 ha): 0.600 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Brown Foundation

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** 29 34' 40" **Longitude (W):** 94 36' 40"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: Lake Robinson, southwest side along a levee.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 80% shoot survival 2 years later, but cattle have severely damaged the planted area. Stand looks very healthy. Erosion is severe on levee bank where plants are not established. Established areas not spreading due to cattle grazing.
- Seidensticker's Plot#5

Marsh Inventory No.: 633 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 08/01/92

Area Planted (1acre = 0.4047 ha): 0.029 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. Dist.

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: On a dredged material deposition island along the west side of the Anahuac River Channel at marker 17.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* : Giant cutgrass (Zinzaniopsis miliacea)

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- This plot is in the area of Trinity Delta destroyed by nutria last winter. A vinyl coated chain link fence was erected to keep nutria out; achieved 100% shoot survival one month later.
- Seidensticker's Plot#18

Marsh Inventory No.: 276 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 07/01/91

Area Planted (1acre = 0.4047 ha): 0.010 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: On a dredged material deposition island along the west side of the Anahuac River, at Fish Pass.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Nutria completely ate this area. Failure
- Seidensticker's Plot#9

Marsh Inventory No.: 275 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 07/01/91

Area Planted (1acre = 0.4047 ha): 0.050 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: On a dredged material deposition island along the west side of the Anahuac River Channel at marker 17.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Nutria and possibly grass carp ate this area completely by the winter. Failure.
- Seidensticker's Plot#10

Marsh Inventory No.: 274 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 07/01/93

Area Planted (1acre = 0.4047 ha): 0.050 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Various Private

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: Along the east shoreline of the old Anahuac Barge channel halfway between Round Point and Ash Point.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 70% shoot survival. 3 years later; free of damage and pests. Good.
- Seidensticker's Plot#8

Marsh Inventory No.: 280 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 08/01/90

Area Planted (1acre = 0.4047 ha): 0.109 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: Along the shore of a dredged material deposition island at marker 9 on the Anahuac River Channel, adjacent to plot 13.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 100% shoot survival. 2 weeks later; plants look good. Plastic snow fence used for protection against waves and nutria. Excellent.
- Seidensticker's Plot#14

Marsh Inventory No.: 279 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 08/01/90

Area Planted (1acre = 0.4047 ha): 0.010 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: Along the shore of a dredged material deposition island at marker 9 on the Anahuac River Channel.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- 100% shoot survival. 2 weeks later; fishermen had cut the temporary barrier fence, but no noticeable damage and lots of aquatic life in the plot now. A plastic snow fence was used to dampen waves, and to keep nutria out. Excellent.
- Seidensticker's Plot#13

Marsh Inventory No.: 278 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 08/01/90

Area Planted (1acre = 0.4047 ha): 0.017 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: Next to the public boat ramp at Ft. Anahuac.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Bulkheaded off by accident and destroyed.
- Seidensticker's Plot#12

Marsh Inventory No.: 277 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 08/01/90

Area Planted (1acre = 0.4047 ha): 0.109 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Chambers-Liberty Nav. District

Location of the marsh.

State: TX **County:** Chambers **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Galveston Bay; Trinity Bay

Directions to the site: Along the north shore at the outlet of Long Island Bayou.

Source of planting information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Mr. Eddie Seidensticker, U.S. Soil Conservation Service, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Completely eaten by nutria. Failure
- Seidensticker's Plot#11

Marsh Inventory No.: 709 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1983

Area Planted (1acre = 0.4047 ha): 2.833 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 20" 51.5" **Longitude (W):** 94 49' 26.8"

Bay and sub-bays: Galveston Bay

Directions to the site: Southern portion of little Pelican Island (the portion N of the GIWW)

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so. which animals were surveyed, and when?

General comments about the marsh:

- This marsh was smothered by dredged material when a dike broke.
- Marsh name: L. Pelican Island.

Marsh Inventory No.: 711 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 22' 00" **Longitude (W):** 94 53' 00"

Bay and sub-bays: Galveston Bay

Directions to the site: Along the SE facing shoreline of Snake Island; just a 0.25 mi W of Texas City Channel and harbor.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 697 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 2.024 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: COE / NMFS

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 21' 00" **Longitude (W):** 94 49' 35"

Bay and sub-bays: Galveston Bay

Directions to the site: Pelican Spit, along the S shore of the thin westward projection of the NW spit; first portion of two.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 696 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 1.214 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: COE / NMFS

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 21' 00" **Longitude (W):** 94 49' 36"

Bay and sub-bays: Galveston Bay

Directions to the site: Pelican Spit, along the S shore of the thin westward projection of the NW spit; second portion of two.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 708 **Information Rank (1-5):** 5 **State:** TX

Date Planted: 04/01/87

Area Planted (1acre = 0.4047 ha): 2.618 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 20' 47.3" **Longitude (W):** 94 49' 50.0"

Bay and sub-bays: Galveston Bay

Directions to the site: Pelican Spit, the extension N of the NW corner of Pelican Island

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. G. Galbraith, Espey-Huston & Associates, Inc.

References or reports: Tom Minello, (409) 766-3606

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 75

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries and benthic organisms.

General comments about the marsh:

- Sprigs were planted on 1-m centers. Excellent survival and growth. Later studied for fisheries organisms. Also, trenched to study edge effects for fish and shellfish.
- Marsh name: Pelican Spit.

Marsh Inventory No.: 642 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha)**:** 0.004 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 33' **Longitude (W):** 95 02'

Bay and sub-bays: Galveston Bay; Clear Lake

Directions to the site: Clear lake Shores-Jabot Bayou

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 0%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Eaten by nutria, complete failure.
-

Marsh Inventory No.: 713 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1977

Area Planted (1acre = 0.4047 ha): 1.214 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 25' 10" **Longitude (W):** 94 43' 57"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: On the N shore of Bolivar Peninsula, about 5 mi E of the Houston Ship Channel

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports: Webb, 1977; Allen et al., 1978.

Other species planted in addition to *Spartina alterniflora* : *Spartina patens*

Percent vegetative cover attained by the planted marsh: 50

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Transplanted *S. alterniflora* was tried at different elevations and under different fertilizer treatments; half the plots were protected behind a sandbag breakwater. This was part of a 7.3 ha study of marsh and upland habitat development.
-

Marsh Inventory No.: 710 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1984

Area Planted (1acre = 0.4047 ha): 0.202 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 24' 43" **Longitude (W):** 94 44' 37"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: On the N shore of Bolivar Peninsula, about 4 mi E of the Houston Ship Channel

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports: Allen and Webb, 1993

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 50

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Two breakwaters were used, a floating tire and a fixed tire. Both worked well to start and 50% cover was obtained. But when the fixed tire breakwater broke, its cordgrass was destroyed in about 5 yrs. The floating tire marsh expanded beyond 100%.
-

Marsh Inventory No.: 712 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1985

Area Planted (1acre = 0.4047 ha): 0.121 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 24' 48" **Longitude (W):** 94 44' 24"

Bay and sub-bays: Galveston Bay; East Bay

Directions to the site: On the N shore of Bolivar Peninsula, about 4 mi E of the Houston Ship Channel

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports: Allen et al., 1986

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 50

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Transplants were protected for awhile by a breakwater made of tires.
-

Marsh Inventory No.: 226 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 1.214 hectares

COE Permit No.: 17072 **Date of COE Permit:** 03/13/85

Originator or Applicant for permit: R. G. Parker

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 21' 00" **Longitude (W):** 94 53' 40"

Bay and sub-bays: Galveston Bay; Swan Lake.

Directions to the site: Along N half of E margin of Swan Lake;

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

Marsh Inventory No.: 636 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 12' 30" **Longitude (W):** 94 57' 30"

Bay and sub-bays: Galveston Bay; West Bay

Directions to the site: Along the SW shore of Lake Como on Galveston Island near Pirates housing development on the bay side.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5 m centers.
-

Marsh Inventory No.: 706 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.016 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE ?

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 13' 50" **Longitude (W):** 95 01' 30"

Bay and sub-bays: Galveston Bay; West Bay.

Directions to the site: Along the N shore of West Bay just S of Carancahua Lake.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Fringe marsh subject to 2 mi fetch across the bay, but somewhat protected by the Carancahua Reef in the bay.
-

Marsh Inventory No.: 718 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 04/01/93

Area Planted (1acre = 0.4047 ha): 12.546 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: City of Hitchcock ?

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 20' 30" **Longitude (W):** 94 58' 20"

Bay and sub-bays: Galveston Bay; West Bay; Highland Bayou

Directions to the site: About 3 miles up the bayou, in the city of Hitchcock

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

Marsh Inventory No.: 719 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 17' 00" **Longitude (W):** 94 54' 18"

Bay and sub-bays: Galveston Bay; West Bay; North Deer Island

Directions to the site: Along the E side of North Deer island; transplants were planted through slits in erosion control coconut fibre mats.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Fringe marsh subject to barge traffic in the GIWW that was only 0.2 mi away.
-

Marsh Inventory No.: 695 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.299 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE ?

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 16' 40" **Longitude (W):** 94 51' 00"

Bay and sub-bays: Galveston Bay; West Bay; Offats Bayou; Lake Madelaine channel.

Directions to the site: Along the W side of the channel, protected by a floating tire wave breaking device.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. Thomas Minello, National Marine Fisheries Service, 4700 Ave. U, Galveston, TX 77551, (409) 766-3506

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries and benthic organisms.

General comments about the marsh:

- Fringe marsh subject to pleasure boats' low wake waves.
-

Marsh Inventory No.: 707 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1984

Area Planted (1acre = 0.4047 ha)**:** 0.324 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Moody Foundation

Location of the marsh.

State: TX **County:** Galveston **Latitude (N):** 29 16' 25.5" **Longitude (W):** 94 50' 57.3"

Bay and sub-bays: Galveston Bay; West Bay; Offatts Bayou; Palm Beach.

Directions to the site: Shoreline along Offatts Bayou infront of Palm Beach.

Source of planting information:

Source of subsequent assessment information: Dr. Geoffrey Matthews, National Marine Fisheries Service, 4700 Ave. U, Galveston, TX 77551, (409) 766-3532

References or reports:

Other species planted in addition to ***Spartina alterniflora*** **:** none

Percent vegetative cover attained by the planted marsh: 50%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Marsh is becoming established at Palm Beach.
-

Marsh Inventory No.: 722 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 0.405 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: TX DOT ?

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 33' 25" **Longitude (W):** 95 01' 20"

Bay and sub-bays: Galveston Bay

Directions to the site: Just NE of the Clear Lake channel causeway, in a tidal pond.

Source of planting information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

Source of subsequent assessment information: Dr. James W. Webb, Texas A&M Univ. at Galveston, P.O. Box 1675, Galveston, TX 77553, (409)740-4542

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 70

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- This marsh has its good and bad years, depending on circulation of water to the pond.
-

Marsh Inventory No.: 634 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 40' **Longitude (W):** 94 59'

Bay and sub-bays: Galveston Bay

Directions to the site: Morgan's Point in front of Mansion

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80-0%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Stand was doing very well until this springs extended high tides that completely killed the *Spartina*. They replanted in July 1993 and are doing more in August 1993.
-

Marsh Inventory No.: 721 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1993

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 38' **Longitude (W):** 95 01'

Bay and sub-bays: Galveston Bay

Directions to the site: Little Cedar Bayou-South bank of bayou about 0.7 km up into the bayou.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers.
-

Marsh Inventory No.: 635 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 38' **Longitude (W):** 95 01'

Bay and sub-bays: Galveston Bay

Directions to the site: Little Cedar Bayou-South bank of bayou about 0.5 km up into the bayou.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 75-90%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers.
-

Marsh Inventory No.: 720 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha)**:** 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 38' **Longitude (W):** 95 01'

Bay and sub-bays: Galveston Bay

Directions to the site: Little Cedar Bayou-South bank of bayou about 0.5 km up into the bayou.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 75-90%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers.
-

Marsh Inventory No.: 637 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 55" **Longitude (W):** 95 05'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River Railroad Island

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80% cover in 40% of the marsh

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers. Predations by grass carp and swamp rabbits.
-

Marsh Inventory No.: 724 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 55" **Longitude (W):** 95 05'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River Railroad Island, northeast margin of the island.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80% cover in 40% of the marsh

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers. Predations by grass carp and swamp rabbits.
-

Marsh Inventory No.: 638 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1991

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 29" **Longitude (W):** 95 04'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River-Little Island, Phase 1

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 95%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:
- Planted on 0.5-m centers.
-

Marsh Inventory No.: 639 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha)**:** 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 29" **Longitude (W):** 95 04'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River-Little Island, Phase 2: added on to the west.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to ***Spartina alterniflora*** **:**

Percent vegetative cover attained by the planted marsh: 65%

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 214 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 55" **Longitude (W):** 95 05'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River Railroad Island, expanded to south.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80% cover in 40% of the marsh

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers. Predations by grass carp and swamp rabbits.
-

Marsh Inventory No.: 723 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1993

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: GBF - SCS

Location of the marsh.

State: TX **County:** Harris **Latitude (N):** 29 48' 55" **Longitude (W):** 95 05'

Bay and sub-bays: Galveston Bay; San Jacinto River, White Lake

Directions to the site: San Jacinto River Railroad Island, expanded to south and northwest.

Source of planting information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

Source of subsequent assessment information: Ms. Linda Shead, Galveston Bay Foundation, 17324-A Hwy. 3, Webster, TX 77598, (713) 332-3381

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 80% cover in 40% of the marsh

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Planted on 0.5-m centers. Predations by grass carp and swamp rabbits.
-

Marsh Inventory No.: 694 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 1.012 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Transco

Location of the marsh.

State: TX **County:** Matagorda **Latitude (N):** 28 24' 30" **Longitude (W):** 96 22' 00"

Bay and sub-bays: Matagorda Bay

Directions to the site: Along the N shore of Decros Point at the S tip of Matagorda Peninsula, beginning about 2 km NE of Pass Cavallo.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 20

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Partial Success (>10% cover). Wide open to the N, fetch greater than 10 km.
-

Marsh Inventory No.: 716 **Information Rank (1-5):** 5 **State:** TX

Date Planted: 07/01/84

Area Planted (1acre = 0.4047 ha)**:** 8.000 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit:

Location of the marsh.

State: TX **County:** Matagorda **Latitude (N):** 28 39' 00" **Longitude (W):** 96 03' 00"

Bay and sub-bays: Matagorda Bay; East Matagorda Bay

Directions to the site: Along the S-facing shoreline of a dredged material island on the NE margin of the bay.

Source of planting information: Dr. Thomas Minello, National Marine Fisheries Service, 4700 Ave. U, Galveston, TX 77551, (409) 766-3506

Source of subsequent assessment information: (Minello & Zimmerman, 1992)

References or reports: (Minello & Zimmerman, 1992)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Fisheries and benthic organisms.

General comments about the marsh:

-

-

Marsh Inventory No.: 245 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: 16075 **Date of COE Permit:**

Originator or Applicant for permit: Latitude 27, Inc. (Island Moorings Subdiv.)

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Corpus Christi Bay

Directions to the site: W. side of Mustang Isl., S. of Port Aransas

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to ***Spartina alterniflora*** **:**

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 240 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.004 hectares

COE Permit No.: 14454(02) **Date of COE Permit:**

Originator or Applicant for permit: Mustang Beach Devel. Corp. (Sunny Castor)

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** 27 49' 53" **Longitude (W):** 97 06' 40"

Bay and sub-bays: Corpus Christi Bay

Directions to the site: W. side of Mustang Isl, S. of Port Aransas; 400 ft SW from the canal to a mud flat.

Source of planting information: Mr. Lloyd Mullins, Texas General Land Office, 111 W. Wilson, 2nd floor Naylor Bldg., Aransas Pass, TX 78336, (512) 758-7228

Source of subsequent assessment information: Ms. Lynda Kahn, Texas General Land Office, 111 W. Wilson, 2nd floor Naylor Bldg., Aransas Pass, TX 78336, (512) 758-7228

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 100

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Impossible to distinguish from the natural marsh.
-

Marsh Inventory No.: 238 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.008 hectares

COE Permit No.: 13625 **Date of COE Permit:**

Originator or Applicant for permit: R.E. Jenkins

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Corpus Christi Bay

Directions to the site: Port Aransas Municipal Boat Harbor

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 191 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.154 hectares

COE Permit No.: 18175 **Date of COE Permit:** 10/26/87

Originator or Applicant for permit: TX State Aquarium Association

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** 27 51' 00" **Longitude (W):** 97 21' 20"

Bay and sub-bays: Corpus Christi Bay

Directions to the site:

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 665 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1981

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: 14454(06) **Date of COE Permit:**

Originator or Applicant for permit: Mustang Beach Ltd.

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** 27 48' 10" **Longitude (W):** 97 05' 45"

Bay and sub-bays: Corpus Christi Bay; Elizabeth Cove

Directions to the site: Mustang Island, Mustang Beach, Tx. 400 sq. ft. from end of canal sw to a mud flat.

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 683 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1990

Area Planted (1acre = 0.4047 ha): 12.141 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: COE

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** 27 52' 00" **Longitude (W):** 97 27' 10"

Bay and sub-bays: Corpus Christi Bay; Nueces Bay

Directions to the site: West end of Nueces Bay.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 2

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Failure (<5% cover). Scrape-down operation removed too much substrate so the area elevation was too low to support *Spartina*. Now Ruppia is growing, and a plover is using the area, probably no corrective measures will be done.

-

Marsh Inventory No.: 682 **Information Rank (1-5):** 3 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: Charlie Craveas

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** 27 38' 15" **Longitude (W):** 97 14' 46"

Bay and sub-bays: Laguna Madre

Directions to the site: S shoreline of the John F. Kennedy Causeway, 0.2 mi W of the GIWW bridge

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 2

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Failure (<10% cover).
-

Marsh Inventory No.: 247 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha)**:** 0.004 hectares

COE Permit No.: 16889 **Date of COE Permit:**

Originator or Applicant for permit: G. Goodman

Location of the marsh.

State: TX **County:** Nueces **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Laguna Madre; Upper Laguna Madre

Directions to the site: Under and S. of the JFK Causeway bridge over the GIWW

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

-

-

Marsh Inventory No.: 693 **Information Rank (1-5):** 4 **State:** TX

Date Planted: 1992

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: none **Date of COE Permit:**

Originator or Applicant for permit: Refugio County

Location of the marsh.

State: TX **County:** Refugio **Latitude (N):** 28 23' 30" **Longitude (W):** 96 50' 20"

Bay and sub-bays: San Antonio Bay

Directions to the site: Bayfront at Austwell, TX; NW of boat docks.

Source of planting information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

Source of subsequent assessment information: Mr. Charles E. Belaire, Belaire Consulting, Inc., P.O. Box 741, Rockport, TX 78382, (512) 729-2948

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh: 75

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- Very successful (>70% cover).
-

Marsh Inventory No.: 237 **Information Rank (1-5):** 3 **State:** TX

Date Planted:

Area Planted (1acre = 0.4047 ha): 0.040 hectares

COE Permit No.: 12825 **Date of COE Permit:**

Originator or Applicant for permit: Ingelside Offshore Services

Location of the marsh.

State: TX **County:** San Patricio **Latitude (N):** **Longitude (W):**

Bay and sub-bays: Corpus Christi Bay

Directions to the site: Jewel Fulton Canal, at Ingleside

Source of planting information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

Marsh Inventory No.: 725 **Information Rank (1-5):** 5 **State:** VA

Date Planted: 10/01/84

Area Planted (1acre = 0.4047 ha): 2.833 hectares

COE Permit No.: ? **Date of COE Permit:** 1984

Originator or Applicant for permit: Navy

<u>Location of the marsh.</u>

State: VA **County:** **Latitude (N):** 36 57' 45" **Longitude (W):** 76 16' 12"

Bay and sub-bays: Chesapeake Bay; Hampton Roads; Willoughby Bay

Directions to the site: Just WNW of the City of Norfolk's Visitor Center.

Source of planting information: Mr. Carvel Blair, Norfolk Wetlands Board

Source of subsequent assessment information: Mr. Carvel Blair, Norfolk Wetlands Board

References or reports: (Blair, 1991)

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh: 64% as of 1989

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when? Yes. Feigenbaum & Swift (1989) studied fish and invertebrates; Blair (1989) studied the birds.

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular; innudation channels form an H with the cross-bar leading to the culverts that connect to the bay.
- Non-quantitative monitoring showed presence of benthic invertebrates, fish and birds. Animal appeared to be as abundant in the created marsh as in the nearby natural marsh.

Marsh Inventory No.: 287 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 04/01/75

Area Planted (1acre = 0.4047 ha)**:** 2.833 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Norfolk District, Army COE

Location of the marsh.

State: VA **County:** Accomack **Latitude (N):** 37 28' 40" **Longitude (W):** 75 44' 30"

Bay and sub-bays: Atlantic Ocean; Quinby Inlet; North Inlet; Cunjer Channel; Sloop Channel.

Directions to the site: On the W shore of an island located at Bouy 171 of Sloop Channel, and about 9 km SE of Willis Wharf.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Garbisch, Woller and McCallum, 1976)

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. COE Contract # DACW65-74-C-0062. These were dredge disposal sites.
- Marsh name: Sloop Channel

Marsh Inventory No.: 286 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 04/01/75

Area Planted (1acre = 0.4047 ha)**:** 1.214 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Norfolk District, Army COE

Location of the marsh.

State: VA **County:** Accomack **Latitude (N):** 37 39' 20" **Longitude (W):** 75 38' 06"

Bay and sub-bays: Atlantic Ocean; Wachapreague Inlet; Burtons Bay.

Directions to the site: On the SW-facing shore at the N end of Burtons Bay, about 9 km NE of Wachapreague.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information: (Garbisch, Woller and McCallum, 1976)

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: irregular. Built by Environmental Concern, Inc. COE Contract # DACW65-74-C-0062. These were dredge disposal sites.
- Marsh name: Burtons Bay

Marsh Inventory No.: 336 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 06/01/87

Area Planted (1acre = 0.4047 ha): 0.283 hectares

COE Permit No.: Date of COE Permit:

Originator or Applicant for permit: Virginia DOT

Location of the marsh.

State: VA **County:** Accomack **Latitude (N):** 37 56' 00?" **Longitude (W):** 75 37' 00?"

Bay and sub-bays: Chesapeake Bay; Pocomoke Sound: Powell Bay; Holdens Creek

Directions to the site: Scrape-down area where old Rte. 702 crossed creek near and E of intersection of 702 and 701, north of Jenkins Bridge.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* :

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: linear. Built by Environmental Concern, Inc.
- Marsh name: Lance Eller Inc.

Marsh Inventory No.: 326 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 07/01/87

Area Planted (1acre = 0.4047 ha): 0.890 hectares

COE Permit No.: **Date of COE Permit:**

Originator or Applicant for permit: City of Hampton, VA

Location of the marsh.

State: VA **County:** City of Hampton **Latitude (N):** 37 03' 45" **Longitude (W):** 76 17' 05"

Bay and sub-bays: Chesapeake Bay; Horseshoe Shoal; Long Creek

Directions to the site: E-side of Long Creek, east of Salt Ponds Rd. and about 8 km NE of Hampton, VA.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Built by Environmental Concern, Inc. Permit # 2 SD OX2 1 002355.
- Marsh name: Hampton, VA.

Marsh Inventory No.: 345 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 06/01/84

Area Planted (1acre = 0.4047 ha): 0.648 hectares

COE Permit No.: 84-0166-12 **Date of COE Permit:** 1984

Originator or Applicant for permit: Vidco of Virginia

Location of the marsh.

State: VA **County:** Isle of Wight **Latitude (N):** 36 48' 45" **Longitude (W):** 76 17' 20"

Bay and sub-bays: Chesapeake Bay; Hampton Roads; Elizabeth River; Bell's Mill Creek

Directions to the site: Residential development mitigation area on Bell's Mill Creek and Cedar Road (Rte. 168?), Chesapeake, VA.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : *Spartina cynosuroides*, *Spartina patens*

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: rectangular. Built by Environmental Concern, Inc.
- Marsh name: Vidco. Permit # 84-0166-12.

Marsh Inventory No.: 312 **Information Rank (1-5):** 3 **State:** VA

Date Planted: 07/01/84

Area Planted (1acre = 0.4047 ha): 1.295 hectares

COE Permit No.: NADOP-P79-0316-06 **Date of COE Permit:**

Originator or Applicant for permit: Town of Tangier, VA.

Location of the marsh.

State: VA **County:** James City **Latitude (N):** 37 12' 50" **Longitude (W):** 76 43' 30"

Bay and sub-bays: Chesapeake Bay; James River; The Thorofare.

Directions to the site: Jamestown National Historic Site shoreline, along the N 1.5 miles of shoreline on The Thorofare, between College Creek and Mill Creek.

Source of planting information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Source of subsequent assessment information:

References or reports:

Other species planted in addition to *Spartina alterniflora* : none

Percent vegetative cover attained by the planted marsh:

Was there an assessment made of animal utilization of the marsh? If so, which animals were surveyed, and when?

General comments about the marsh:

- *S. alterniflora* was planted on 2-ft centers. Marsh shape: shoreline. Built by Environ. Concern Inc. EPA Project # C-510527-03.
- Marsh name: Tangier Island Sewer.

Marshes with Minimal Information

Marsh Inventory No.: 1 **COE Permit No.:** AL84-00128-L **Size (ha):** 0.003
State: AL **County:** Baldwin **Bay :** Cotton Bayou
Source of information:
Comments: .

Marsh Inventory No.: 4 **COE Permit No.:** AL90-00065-B **Size (ha):** 0.004
State: AL **County:** Baldwin **Bay :** Perdido Bay
Source of information:
Comments: .

Marsh Inventory No.: 3 **COE Permit No.:** AL84-00109-A **Size (ha):** 0.020
State: AL **County:** Baldwin **Bay :** Perdido Bay; Arnica Bay
Source of information:
Comments: .

Marsh Inventory No.: 658 **COE Permit No.:** AL87-01424-U **Size (ha):** 18.070
State: AL **County:** Mobile **Bay :** Mississippi Sound, West Fowl River Bay
Source of information: Dr. Barry A. Vittor, Barry A. Vittor and Ass., Inc., Environmental Research & Consulting, 8060 Cottage Hill Road, Mobile, AL 36695, (205) 633-6100
Comments: Marsh shape: protected canal system. Planting density of *S. alterniflora* : 4 stems per sq. m. 5 site evaluations were performed from 1988-1989.. Marsh name: West Fowl River Marsh.

Marsh Inventory No.: 2 **COE Permit No.:** AL84-00039-L-AF **Size (ha):** 0.008
State: AL **County:** Mobile **Bay :** Mississippi Sound; Bayou Coden
Source of information:
Comments: .

Marsh Inventory No.: 184 **COE Permit No.:** **Size (ha):** 0.350
State: AL **County:** **Bay :** Mississippi Sound; Portersville Bay
Source of information: (Allen, Shirley and Webb, 1982) (Allen, Shirley & Webb, 1982)
Comments: This was a test of new design breakwaters. The floating tire breakwater successfully withstood the wave energy, but caused sediment acretion and smothered the sprigs planted in June 1985. *S. alterniflora* was planted again in Aug '85. . Survival of the 1985 planting was about 30-40% behind the breakwaters as of Nov '85.
Marsh Inventory No.: 673 **COE Permit No.:** **Size (ha):** 1.550
State: AL **County:** **Bay :** Mobile Bay
Source of information: (Allen and Webb, 1982) (Allen & Webb, 1982)
Comments: This was a test of new design breakwaters. The floating tire breakwater successfully withstood the wave energy and protected the *S. alterniflora* planting..

Marsh Inventory No.: 655 **COE Permit No.: Size (ha):** 0.081
State: CT **County: Bay :** Mianus River
Source of information: Mr. Matthew J. Popp or Ms. Judith A. Slayback, Environmental Design Associates, P.C., P.O. Box 247, 78 Danbury Road, Wilton, CT 06897, (203) 762-8020
Comments: Some problems with predation by Canadian geese. Initially the new plants showed vigorous growth..

Marsh Inventory No.: 656 **COE Permit No.: Size (ha):** 0.040
State: CT **County: Bay :**
Source of information: Mr. Matthew J. Popp or Ms. Judith A. Slayback, Environmental Design Associates, P.C., P.O. Box 247, 78 Danbury Road, Wilton, CT 06897, (203) 762-8020
Comments: .

Marsh Inventory No.: 405 **COE Permit No.: Size (ha):** 0.081
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Beachgrass planting.

Marsh Inventory No.: 310 **COE Permit No.: Size (ha):**
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: .

Marsh Inventory No.: 482 **COE Permit No.: Size (ha):** 0.162
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Shore planting.

Marsh Inventory No.: 510 **COE Permit No.: Size (ha):** 0.040
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Y. Usuki.

Marsh Inventory No.: 509 **COE Permit No.: Size (ha):** 0.040
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: N. Bunting/Vines Creek.

Marsh Inventory No.: 541 **COE Permit No.: Size (ha):** 0.567
State: DE **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc. . Marsh name: Hudson.

Marsh Inventory No.: 558 **COE Permit No.:** **Size (ha):** 0.121
State: DE **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Phil Short.

Marsh Inventory No.: 595 **COE Permit No.:** **Size (ha):** 0.040
State: DE **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: RV Park.

Marsh Inventory No.: 5 **COE Permit No.:** 84W-5163 **Size (ha):** 0.057
State: FL **County:** **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 39 **COE Permit No.:** 85IPX-20324 **Size (ha):** 0.769
State: FL **County:** Bay **Bay :** St. Andrew Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 38 **COE Permit No.:** 82R-1605 **Size (ha):** 0.202
State: FL **County:** Bay **Bay :** St. Andrew Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 12 **COE Permit No.:** 87IPX-20545 **Size (ha):** 0.405
State: FL **County:** Brevard **Bay :** Banana River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 11 **COE Permit No.:** 86-77-083 **Size (ha):** 0.890
State: FL **County:** Brevard **Bay :** Banana River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 24 **COE Permit No.:** 87IPD-21185 **Size (ha):** 2.173
State: FL **County:** Brevard **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 22 **COE Permit No.:** 84F-4096 **Size (ha):** 0.049
State: FL **County:** Brevard **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 21 **COE Permit No.:** 84X-4629 **Size (ha):** 0.002
State: FL **County:** Brevard **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 20 **COE Permit No.:** 84M-2530 **Size (ha):** 0.012
State: FL **County:** Brevard **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 252 **COE Permit No.:** SAI-44 **Size (ha):** 0.202
State: FL **County:** Brevard **Bay :** Indian River, Indian River Lagoon
Source of information: Dr. Robin Lewis, III., Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL 33622-0005, (813) 889-9684 (Crewz & Lewis, 1991)
Comments: *Spartina alterniflora* growing well, but fringe was covered by fill. Mixed success. .

Marsh Inventory No.: 15 **COE Permit No.:** 84D-5195 **Size (ha):** 1.044
State: FL **County:** Camden **Bay :** Cumberland Sound; Amelia River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 14 **COE Permit No.:** 84J-0062 **Size (ha):** 1.340
State: FL **County:** Camden **Bay :** Cumberland Sound; Amelia River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 18 **COE Permit No.:** 85-47005 **Size (ha):** 0.004
State: FL **County:** Dixie **Bay :** Horseshoe Cove
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 6 **COE Permit No.:** 85IPX-21013 **Size (ha):** 0.028
State: FL **County:** Duval **Bay :** AIWW; Smith Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 31 **COE Permit No.:** 88IPK-20374 **Size (ha):** 0.012
State: FL **County:** Duval **Bay :** Nassau Sound; Nassau River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 362 **COE Permit No.:** **Size (ha):** 3.764
State: FL **County:** Duval **Bay :** St. John's River; Nichols Creek
Source of information: Ms. Lisa Adams, Florida Dept. of Environmental Regulation, NE District Office, 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7577, (904) 448-4300.
Comments: Very successful, monitoring complete and reports in file. File # 161219709..

Marsh Inventory No.: 48 **COE Permit No.:** 89IPH-90034 **Size (ha):** 0.809
State: FL **County:** Duval **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 47 **COE Permit No.:** 88-87-026 **Size (ha):** 0.085
State: FL **County:** Duval **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 46 **COE Permit No.:** 86IPP-21097 **Size (ha):** 0.077
State: FL **County:** Duval **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 45 **COE Permit No.:** 87IPP-20004 **Size (ha):** 0.001
State: FL **County:** Duval **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 44 **COE Permit No.:** 86IPP-20625 **Size (ha):** 2.428
State: FL **County:** Duval **Bay :** St. Johns River

Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 42 **COE Permit No.:** 84T-2871 **Size (ha):** 0.007
State: FL **County:** Duval **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 49 **COE Permit No.:** 90IPH-02068 **Size (ha):** 0.223
State: FL **County:** Duval **Bay :** St. Johns River; AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 43 **COE Permit No.:** 85IPX-20475 **Size (ha):** 0.004
State: FL **County:** Duval **Bay :** St. Johns River; Mill Cove
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 41 **COE Permit No.:** 83C-1603 **Size (ha):** 0.056
State: FL **County:** Duval **Bay :** St. Johns River; Pablo Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 40 **COE Permit No.:** 83X-2396 **Size (ha):** 0.038
State: FL **County:** Duval **Bay :** St. Johns River; Pablo Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 616 **COE Permit No.:** **Size (ha):** 0.280
State: FL **County:** Escampia **Bay :**
Source of information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 (Roberts, 1991)
Comments: Many birds; several rats and mice; many killifish..

Marsh Inventory No.: 9 **COE Permit No.:** 87-67-002 **Size (ha):** 0.008
State: FL **County:** Franklin **Bay :** Apalachicola Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 10 **COE Permit No.:** 89IPZ-20173 **Size (ha):** 0.040
State: FL **County:** Franklin **Bay :** Apalachicola Bay; East Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 54 **COE Permit No.:** 86IPE-20122 **Size (ha):** 0.130
State: FL **County:** Hillsborough **Bay :** Tampa Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 13 **COE Permit No.:** 85IPE-20730 **Size (ha):** 0.073
State: FL **County:** Lee **Bay :** Caloosahatchee River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 55 **COE Permit No.:** 86IPE-20495 **Size (ha):** 0.057
State: FL **County:** Manatee **Bay :** Tampa Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 51 **COE Permit No.:** 81C-1699 **Size (ha):** 0.017
State: FL **County:** Manatee **Bay :** Tampa Bay; Manatee River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 7 **COE Permit No.:** 88IPJ-20334 **Size (ha):** 0.008
State: FL **County:** Martin **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 363 **COE Permit No.:** **Size (ha):** 2.428
State: FL **County:** Nassau **Bay :** ICW and Walker Creek
Source of information: Ms. Lisa Adams, Florida Dept. of Environmental Regulation, NE District Office, 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7577, (904) 448-4300.
Comments: Very successful, no monitoring required in permit, no reports in file. File # 450804829..

Marsh Inventory No.: 30 **COE Permit No.:** 85IPF-20609 **Size (ha):** 1.044
State: FL **County:** Nassau **Bay :** Nassau Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .
Marsh Inventory No.: 32 **COE Permit No.:** 89IPV-90847 **Size (ha):** 2.226
State: FL **County:** Nassau **Bay :** Nassau Sound; Nassau River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 57 **COE Permit No.:** 86IPE-20613 **Size (ha):** 0.020
State: FL **County:** Pinellas **Bay :** Tampa Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 56 **COE Permit No.:** 86IPT-20286 **Size (ha):** 0.012
State: FL **County:** Pinellas **Bay :** Tampa Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 37 **COE Permit No.:** 89-67-008 **Size (ha):** 0.093
State: FL **County:** Santa Rosa **Bay :** Santa Rosa Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 36 **COE Permit No.:** 84D-3163 **Size (ha):** 0.081
State: FL **County:** Santa Rosa **Bay :** Santa Rosa Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 620 **COE Permit No.:** **Size (ha):** 0.490
State: FL **County:** St. Johns **Bay :**
Source of information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 (Roberts, 1991)
Comments: Marsh was fairly well established. Few birds; several rats; many killifish..
Marsh Inventory No.: 8 **COE Permit No.:** 90IPH-03073 **Size (ha):** 0.575
State: FL **County:** St. Johns **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 29 **COE Permit No.:** J199100788 **Size (ha):** 1.202
State: FL **County:** St. Johns **Bay :** Matanzas River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 28 **COE Permit No.:** J199004572 **Size (ha):** 1.032
State: FL **County:** St. Johns **Bay :** Matanzas River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 27 **COE Permit No.:** 88IPX-20182 **Size (ha):** 0.214
State: FL **County:** St. Johns **Bay :** Matanzas River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 26 **COE Permit No.:** 85IPK-20997 **Size (ha):** 0.166
State: FL **County:** St. Johns **Bay :** Matanzas River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 25 **COE Permit No.:** 84E-0916 **Size (ha):** 0.332
State: FL **County:** St. Johns **Bay :** Matanzas River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 35 **COE Permit No.:** 84W-2418 **Size (ha):** 0.081
State: FL **County:** St. Johns **Bay :** San Sebastian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 34 **COE Permit No.:** 84W-5172 **Size (ha):** 0.060
State: FL **County:** St. Johns **Bay :** San Sebastian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 33 **COE Permit No.:** 84W-0524 **Size (ha):** 0.169
State: FL **County:** St. Johns **Bay :** San Sebastian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 50 **COE Permit No.:** J199100155 **Size (ha):** 0.040
State: FL **County:** St. Johns **Bay :** St. Johns River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 59 **COE Permit No.:** 88IPX-20575 **Size (ha):** 0.567
State: FL **County:** St. Johns **Bay :** Tolomato River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 58 **COE Permit No.:** 87IPL-21114 **Size (ha):** 0.008
State: FL **County:** St. Johns **Bay :** Tolomato River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 16 **COE Permit No.:** 86IPL-21086 **Size (ha):** 0.174
State: FL **County:** Volusia **Bay :** Halifax River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 622 **COE Permit No.:** **Size (ha):** 0.040
State: FL **County:** Volusia **Bay :** Halifax River
Source of information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 (Roberts, 1991)
Comments: No birds; no mammal signs or catches; few killifish. Small fringe marsh lacks habitat complexity needed to support fish..

Marsh Inventory No.: 23 **COE Permit No.:** 87IPK-20697 **Size (ha):** 7.285
State: FL **County:** Volusia **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 17 **COE Permit No.:** 85IPW-90007 **Size (ha):** 0.057
State: FL **County:** Walton **Bay :** Hogtown Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 625 **COE Permit No.:** **Size (ha):** 0.020
State: FL **County:** **Bay :**
Source of information: Mr.Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 Roberts,1991

Comments: No birds; no mammal signs; few fish. Small fringe marsh lacks habitat complexity needed to support fish..

Marsh Inventory No.: 19 **COE Permit No.:** 82E-0666 **Size (ha):** 0.364
State: FL **County:** **Bay :** Indian River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 623 **COE Permit No.:** **Size (ha):** 0.490
State: FL **County:** **Bay :** Tampa Bay
Source of information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 (Roberts, 1991)
Comments: Many birds; no rats; signs of rabbits and raccoons; many killifish..

Marsh Inventory No.: 624 **COE Permit No.:** **Size (ha):** 0.280
State: FL **County:** **Bay :** Tampa Bay;
Source of information: Dr. Tom Roberts, Tennessee Tech University, Cookeville, TN 38505 (Roberts, 1991)
Comments: Few birds; no rats; signs of rabbits; very many killifish..

Marsh Inventory No.: 52 **COE Permit No.:** 82U-1047 **Size (ha):** 0.911
State: FL **County:** **Bay :** Tampa Bay; Old Tampa Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 364 **COE Permit No.:** **Size (ha):** 0.405
State: FL **County:** **Bay :**
Source of information: Ms. Lisa Adams, Florida Dept. of Environmental Regulation, NE District Office, 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7577, (904) 448-4300.
Comments: Successful. Monitoring complete, reports available but need time to locate. File # 551270462..

Marsh Inventory No.: 360 **COE Permit No.:** **Size (ha):**
State: FL **County:** **Bay :**
Source of information: Ms. Lucy Blair, Florida Dept. of Environmental Regulation, S District Office, 2295 Victoria Ave., Suite, Fort Myers, FL 33901, (813) 332-6975.
Comments: 2 areas were planted. Reports are required semiannally for the life of the permit. File # 361392379..

Marsh Inventory No.: 359 **COE Permit No.:** **Size (ha):** 0.728
State: FL **County:** **Bay :**
Source of information: Ms. Lucy Blair, Florida Dept. of Environmental Regulation, S District Office, 2295 Victoria Ave., Suite, Fort Myers, FL 33901, (813) 332-6975.
Comments: Monitoring reports to be submitted semiannually for 3 years. File # 89-0795..

Marsh Inventory No.: 361 **COE Permit No.:** **Size (ha):**
State: FL **County:** **Bay :**

Source of information: Ms. Lucy Blair, Florida Dept. of Environmental Regulation, S District Office, 2295 Victoria Ave., Suite, Fort Myers, FL 33901, (813) 332-6975.
Comments: Reports to be submitted annually, but none have been received. File # 361552385..

Marsh Inventory No.: 358 **COE Permit No.:** **Size (ha):**
State: FL **County:** **Bay :**
Source of information: Ms. Lucy Blair, Florida Dept. of Environmental Regulation, S District Office, 2295 Victoria Ave., Suite, Fort Myers, FL 33901, (813) 332-6975.
Comments: 2 of 4 mitigation areas planted with *S. alterniflora* in Aug 1991. 2 reports were submitted in 1992 and the latest report was submitted in March 1993. Semiannual reports are required for the life of the permit. File # 111793975..

Marsh Inventory No.: 69 **COE Permit No.:** 7189 **Size (ha):** 0.299
State: GA **County:** Chatham **Bay :** Wassaw Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 68 **COE Permit No.:** 7075 **Size (ha):** 0.016
State: GA **County:** Chatham **Bay :** Wassaw Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 67 **COE Permit No.:** 6852 **Size (ha):** 1.659
State: GA **County:** Chatham **Bay :** Wassaw Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 66 **COE Permit No.:** 5922 **Size (ha):** 1.412
State: GA **County:** Chatham **Bay :** Wassaw Sound: Wilmington River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 63 **COE Permit No.:** 6614 **Size (ha):** 18.899
State: GA **County:** Glynn **Bay :** St. Andrew Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 65 **COE Permit No.:** 6879 **Size (ha):** 0.036
State: GA **County:** Glynn **Bay :** St. Simons Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Comments: .

Marsh Inventory No.: 60 **COE Permit No.:** 6790 **Size (ha):** 0.081
State: GA **County:** McIntosh **Bay :** Sapello Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 61 **COE Permit No.:** 074 OYN 004576 **Size (ha):** 0.044
State: GA **County:** **Bay :** St. Andrew Sound; Little Satilla River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 62 **COE Permit No.:** 4585 **Size (ha):** 1.562
State: GA **County:** **Bay :** St. Andrew Sound; Satilla River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 64 **COE Permit No.:** 074 OYN 004420 **Size (ha):** 0.971
State: GA **County:** **Bay :** St. Simons Sound; Brunswick River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 646 **COE Permit No.:** **Size (ha):**
State: LA **County:** Cameron **Bay :** Black Lake
Source of information: Mr. Ronald Marcantel, U.S. Soil Conservation Service, Lake Charles Field Office, 1400 Highway 14, Lake Charles, LA 71302, (318) 436-1483
Comments: Site was evaluated in 1988 and 1989..

Marsh Inventory No.: 96 **COE Permit No.:** **Size (ha):** 0.567
State: LA **County:** Cameron **Bay :** Calcasieu Lake
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # OYSTER BAYOU-8.

Marsh Inventory No.: 97 **COE Permit No.:** **Size (ha):** 3.399
State: LA **County:** Cameron **Bay :** Calcasieu Lake; Calcasieu River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LTCS-35.

Marsh Inventory No.: 124 **COE Permit No.:** **Size (ha):** 0.648
State: LA **County:** Cameron **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CAMERON-815.

Marsh Inventory No.: 116 **COE Permit No.:** **Size (ha):** 284.909
State: LA **County:** Cameron **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CREOLE CANAL-2.

Marsh Inventory No.: 700 **COE Permit No.:** **Size (ha):** 0.364
State: LA **County:** Iberia **Bay :** Vermillion Bay; Weeks Bay
Source of information: Mr. Brad Broussard, U.S. Soil Conservation Service, New Iberia Field Office, 300 Iberia Street, New Iberia, LA 70560 (318) 369-6623
Comments: Marsh name: Weeks Bay..

Marsh Inventory No.: 703 **COE Permit No.:** **Size (ha):** 0.283
State: LA **County:** Iberia **Bay :** Vermillion Bay; Weeks Bay
Source of information: Mr. Brad Broussard, U.S. Soil Conservation Service, New Iberia Field Office, 300 Iberia Street, New Iberia, LA 70560 (318) 369-6623
Comments: Marsh name: Bayou Carlin..

Marsh Inventory No.: 702 **COE Permit No.:** **Size (ha):** 0.049
State: LA **County:** Iberia **Bay :** Vermillion Bay; Weeks Bay
Source of information: Mr. Brad Broussard, U.S. Soil Conservation Service, New Iberia Field Office, 300 Iberia Street, New Iberia, LA 70560 (318) 369-6623
Comments: Marsh name: Bayou Petite Anse-Avery Island. Single stems of *Spartina alterniflora* were planted 0.3 m apart, using an offset of 0.15 m between rows..

Marsh Inventory No.: 701 **COE Permit No.:** **Size (ha):** 0.049
State: LA **County:** Iberia **Bay :** Vermillion Bay; Weeks Bay
Source of information: Mr. Brad Broussard, U.S. Soil Conservation Service, New Iberia Field Office, 300 Iberia Street, New Iberia, LA 70560 (318) 369-6623
Comments: Marsh name: Bayou Petite Anse-ICW..

Marsh Inventory No.: 83 **COE Permit No.:** **Size (ha):** 0.405
State: LA **County:** Jefferson **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CAMINADA BAY-50/1.

Marsh Inventory No.: 80 **COE Permit No.:** **Size (ha):** 1.214
State: LA **County:** Jefferson **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BLIND BAY-31.

Marsh Inventory No.: 78 **COE Permit No.:** **Size (ha):** 1.619
State: LA **County:** Jefferson **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU DUPONT-49.

Marsh Inventory No.: 76 **COE Permit No.: Size (ha):** 1.862
State: LA **County:** Jefferson **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU RIGAUD-57.

Marsh Inventory No.: 101 **COE Permit No.: Size (ha):** 0.486
State: LA **County:** Jefferson **Bay :** Gulf of Mexico; Caminada Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CAMINADA BAY-52/1.

Marsh Inventory No.: 130 **COE Permit No.: Size (ha):** 0.093
State: LA **County:** Jefferson **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # JEFFERSON-84.

Marsh Inventory No.: 87 **COE Permit No.: Size (ha):** 849.870
State: LA **County:** Lafourche **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-480/4.

Marsh Inventory No.: 82 **COE Permit No.: Size (ha):** 0.809
State: LA **County:** Lafourche **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-655.

Marsh Inventory No.: 85 **COE Permit No.: Size (ha):** 1.700
State: LA **County:** Lafourche **Bay :** Barataria Bay; Bayou Lafourche
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU LAFOURCHE-1072.

Marsh Inventory No.: 77 **COE Permit No.: Size (ha):** 1424.544
State: LA **County:** Lafourche **Bay :** Barataria Bay; Caminada Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-517.

Marsh Inventory No.: 100 **COE Permit No.: Size (ha):** 10.118
State: LA **County:** Lafourche **Bay :** Gulf of Mexico
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # FLOTATION CANAL-1.

Marsh Inventory No.: 110 **COE Permit No.: Size (ha):** 2.979
State: LA **County:** Lafourche **Bay :** Terrebonne Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # GRAND BAYOU BLUE-15.

Marsh Inventory No.: 111 **COE Permit No.: Size (ha):** 4.533
State: LA **County:** Lafourche **Bay :** Timbalier Bay; Flotation Canal
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # FLOTATION CANAL-1/1.

Marsh Inventory No.: 128 **COE Permit No.: Size (ha):** 5.666
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-663/2.

Marsh Inventory No.: 126 **COE Permit No.: Size (ha):** 0.809
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-683.

Marsh Inventory No.: 125 **COE Permit No.: Size (ha):** 0.162
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-649.

Marsh Inventory No.: 121 **COE Permit No.: Size (ha):** 704.178
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-577.

Marsh Inventory No.: 119 **COE Permit No.: Size (ha):** 1.093
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702;

(813) 893-3503.
Comments: Permit # LAFOURCHE-560.

Marsh Inventory No.: 117 **COE Permit No.: Size (ha):** 849.870
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-480/1.

Marsh Inventory No.: 114 **COE Permit No.: Size (ha):** 5.625
State: LA **County:** Lafourche **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAFOURCHE-482.

Marsh Inventory No.: 104 **COE Permit No.: Size (ha):** 2.788
State: LA **County:** Orleans **Bay :** Lake Pontchartrain
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # Lake Pontchartrain-5.

Marsh Inventory No.: 84 **COE Permit No.: Size (ha):** 0.283
State: LA **County:** Plaquemines **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BARATARIA BAY-194.

Marsh Inventory No.: 81 **COE Permit No.: Size (ha):** 4.856
State: LA **County:** Plaquemines **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # GRAND BAYOU-164.

Marsh Inventory No.: 79 **COE Permit No.: Size (ha):** 0.405
State: LA **County:** Plaquemines **Bay :** Barataria Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAY BATISTE-18.

Marsh Inventory No.: 86 **COE Permit No.: Size (ha):** 3.764
State: LA **County:** Plaquemines **Bay :** Barataria Bay; Bayou Grand Cheni
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU GRAND CHENIER-.

Marsh Inventory No.: 106 **COE Permit No.: Size (ha):** 0.607

State: LA **County:** Plaquemines **Bay :** Mississippi Delta
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CHICHARAS BAY-3.

Marsh Inventory No.: 105 **COE Permit No.: Size (ha):** 1.214
State: LA **County:** Plaquemines **Bay :** Mississippi Delta
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAY EARANE-1.

Marsh Inventory No.: 352 **COE Permit No.: Size (ha):**
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service, Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *Spartina alterniflora* 1 stem/ft. 600 linear ft. planted. Marsh name: Lake Hermitage. To be planted in Sept. 1993. 5 board wave dampening fences to be constructed prior to planting..

Marsh Inventory No.: 351 **COE Permit No.: Size (ha):**
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service, Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *Spartina alterniflora* 1 stem/ft. 600 linear ft. planted. Marsh name: Lake Laurier. To be planted in Sept. 1993. 5 board wave dampening fences to be constructed prior to planting..

Marsh Inventory No.: 129 **COE Permit No.:** GP890950 **Size (ha):** 0.405
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 127 **COE Permit No.: Size (ha):** 0.567
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # PLAQUEMINES-505.

Marsh Inventory No.: 120 **COE Permit No.: Size (ha):** 0.243
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # PLAQUEMINES-427.

Marsh Inventory No.: 118 **COE Permit No.: Size (ha):** 8.094

State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # PLAQUEMINES-391.

Marsh Inventory No.: 115 **COE Permit No.: Size (ha):** 0.931
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # PLAQUEMINES-330.

Marsh Inventory No.: 71 **COE Permit No.: Size (ha):** 0.931
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # PLAQUEMINES-284.

Marsh Inventory No.: 347 **COE Permit No.: Size (ha):** 0.121
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service, Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *Spartina alterniflora* 1 stem/ft. 13,050 linear ft. planted. Marsh name: Myrtle Grove. This project was completed in 1991. Survival rate only 2% due to nutria predation. Only 10% of plants were caged. .

Marsh Inventory No.: 350 **COE Permit No.:** none **Size (ha):** 0.017
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service, Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *S. alterniflora* 1 stem/ft. 1,875 linear ft. planted. Marsh name: Yellow Cotton Bay. 5/93 Survival Rate 50%. SE (General Permit) NOD-100. Survival rate higher in this region probably because of greater mineral content of soil.. Plantings were done along a washed-out spoil bank along a canal. Plants showed good to excellent vigor but growth was confined to within nutria-exclusion devices (NED'S). Salinity levels in the area range from 3-10 ppt.

Marsh Inventory No.: 349 **COE Permit No.:** none **Size (ha):** 0.019
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service, Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *Spartina alterniflora* 1 stem/ft. 2,022 linear ft. planted. Marsh name: Bayou Dupont 3/93 Survival rate 10%. Damage due to Hurricane Andrew and nutria. SE (General Permit) NOD-100..

Marsh Inventory No.: 348 **COE Permit No.:** none **Size (ha):** 0.012
State: LA **County:** Plaquemines **Bay :**
Source of information: Mr. John E. Boatman, U.S. Soil Conservation Service,

Plaquemines Soil and Water Conservation District Office, 104 Hebert Boulevard, Belle Chase, LA 70037, (504) 394-7741
Comments: Planting density of *Spartina alterniflora* 1 stem/ft. 1,320 linear ft. planted. Marsh name: Round Lake. Survival rate poor (3%). Causes include nutria predation, shoreline erosion, Hurricane Andrew, soils. . Although 70% of plants were caged, once cages deteriorated or were openned by Hurricane Andrew, nutria ate the plants. Only plants away from the shoreline and still in cages survived. Also, plants not on firm soils failed to establish.

Marsh Inventory No.: 91 **COE Permit No.: Size (ha):** 2.428
State: LA **County:** St. Bernard **Bay :** Breton Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # MRGO-70.

Marsh Inventory No.: 92 **COE Permit No.: Size (ha):** 2.428
State: LA **County:** St. Bernard **Bay :** Breton Sound; Lake Machias
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LAKE MACHIAS-19.

Marsh Inventory No.: 93 **COE Permit No.: Size (ha):** 6.071
State: LA **County:** St. Bernard **Bay :** Breton Sound; Yscloskey Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # YSCLOSKEY BAYOU-14.

Marsh Inventory No.: 98 **COE Permit No.: Size (ha):** 1.943
State: LA **County:** St. Bernard **Bay :** Chandeleur Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # ST. BERNARD-43.

Marsh Inventory No.: 113 **COE Permit No.: Size (ha):** 0.850
State: LA **County:** St. Bernard **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # ST. BERNARD-47.

Marsh Inventory No.: 112 **COE Permit No.: Size (ha):** 0.809
State: LA **County:** St. Bernard **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # ST. BERNARD-45.

Marsh Inventory No.: 75 **COE Permit No.: Size (ha):** 16.188
State: LA **County:** St. Martin **Bay :** Atachafalaya Floodway

Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LITTLE BAYOU CHEVREA.

Marsh Inventory No.: 643 **COE Permit No.: Size (ha):**
State: LA **County:** St. Tammeny **Bay :** Lake Pontchartrain
Source of information: Mr. Tony Beauboef, SCS, Franklinton, LA, (504) 839-5688
Comments: Site was evaluated in 1988 and 1989..

Marsh Inventory No.: 95 **COE Permit No.: Size (ha):** 0.975
State: LA **County:** Terrebonne **Bay :** Caillou Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-763.

Marsh Inventory No.: 94 **COE Permit No.: Size (ha):** 1.214
State: LA **County:** Terrebonne **Bay :** Caillou Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # CHARLEYS BAY-3.

Marsh Inventory No.: 644 **COE Permit No.: Size (ha):**
State: LA **County:** Terrebonne **Bay :** Lake DeCade
Source of information: Mr. Michael Tullos, U.S. Soil Conservation Service, Houma Field Office, Box 1266, Houma, LA 10361, (504) 872-5609
Comments: Site was evaluated in 1988 and 1989..

Marsh Inventory No.: 102 **COE Permit No.: Size (ha):** 80.940
State: LA **County:** Terrebonne **Bay :** Lake Pelto
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # GOM-3450.

Marsh Inventory No.: 109 **COE Permit No.: Size (ha):** 10.846
State: LA **County:** Terrebonne **Bay :** Terrebonne Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # LITTLE BAYOU CHEVREA.

Marsh Inventory No.: 108 **COE Permit No.: Size (ha):** 0.040
State: LA **County:** Terrebonne **Bay :** Terrebonne Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-536A.

Marsh Inventory No.: 107 **COE Permit No.: Size (ha):** 1.295
State: LA **County:** Terrebonne **Bay :** Terrebonne Bay

Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-519/1.

Marsh Inventory No.: 123 **COE Permit No.:** **Size (ha):** 0.526
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-798.

Marsh Inventory No.: 122 **COE Permit No.:** **Size (ha):** 1.862
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # JACK STOUT BAY-1.

Marsh Inventory No.: 74 **COE Permit No.:** **Size (ha):** 1.821
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-583.

Marsh Inventory No.: 73 **COE Permit No.:** **Size (ha):** 0.405
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-559.

Marsh Inventory No.: 72 **COE Permit No.:** **Size (ha):** 0.809
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-536.

Marsh Inventory No.: 70 **COE Permit No.:** **Size (ha):** 8.175
State: LA **County:** Terrebonne **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-528.

Marsh Inventory No.: 645 **COE Permit No.:** **Size (ha):**
State: LA **County:** Vermilion **Bay :** Rollover Bayou
Source of information: Mr. Donald Menard, U.S. Soil Conservation Service, Abbeville Field Office, P.O. Box 68, Abbeyville, LA 70511-0068, (318) 893-5664
Comments: Site was evaluated in 1988 and 1989..

Marsh Inventory No.: 89 **COE Permit No.:** **Size (ha):** 0.931
State: LA **County:** **Bay :** Bayou De La Valle
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU DE LA VALLE-7.

Marsh Inventory No.: 88 **COE Permit No.:** **Size (ha):** 0.809
State: LA **County:** **Bay :** Bayou De La Valle
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # BAYOU DE LA VALLE-4.

Marsh Inventory No.: 90 **COE Permit No.:** **Size (ha):** 16.188
State: LA **County:** **Bay :** Bayou Terrebonne
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # TERREBONNE-690.

Marsh Inventory No.: 99 **COE Permit No.:** **Size (ha):** 4.047
State: LA **County:** **Bay :** Grand Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # GRAND BAYOU-155.

Marsh Inventory No.: 103 **COE Permit No.:** **Size (ha):** 0.283
State: LA **County:** **Bay :** Lake Pontchartrain
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: Permit # Lake Pontchartrain-5.

Marsh Inventory No.: 667 **COE Permit No.:** **Size (ha):** 8.903
State: ME **County:** **Bay :** Webhannet River
Source of information: Mr. Bill Hubbard, COE, (617) 647-8552
Comments: Built by Environmental Concern, Inc.. Marsh name: Webhannet River Marsh.

Marsh Inventory No.: 393 **COE Permit No.:** **Size (ha):** 0.040
State: ME **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Kittery Restoration.

Marsh Inventory No.: 480 **COE Permit No.:** **Size (ha):** 0.040
State: ME **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Leather Loft.

Marsh Inventory No.: 585 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** Kent **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Little Neck Farm.

Marsh Inventory No.: 651 **COE Permit No.:** **Size (ha):**
State: MD **County:** Queen Anne **Bay :** Broad Bay
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: .

Marsh Inventory No.: 527 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** Talbot **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Roderick Hickey, Little Neck Creek.

Marsh Inventory No.: 564 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** Talbot **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bruce Hackett/Island Creek.

Marsh Inventory No.: 589 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** Talbot **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Swope/Irish Creek.

Marsh Inventory No.: 650 **COE Permit No.:** **Size (ha):**
State: MD **County:** **Bay :** Chesapeake Bay
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: No *S. alterniflora* planted..

Marsh Inventory No.: 654 **COE Permit No.:** **Size (ha):**
State: MD **County:** **Bay :** Chester River
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: .

Marsh Inventory No.: 653 **COE Permit No.:** **Size (ha):**
State: MD **County:** **Bay :** Choptank River
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: .

Marsh Inventory No.: 380 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: San Domingo.

Marsh Inventory No.: 387 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hambleton Island SD.

Marsh Inventory No.: 386 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Sand Spit.

Marsh Inventory No.: 385 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hambleton Island Salt Pan.

Marsh Inventory No.: 384 **COE Permit No.: Size (ha):** 0.121
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Long Point Island.

Marsh Inventory No.: 383 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Tred Avon River.

Marsh Inventory No.: 382 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Rich Neck.

Marsh Inventory No.: 381 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hambleton Island.

Marsh Inventory No.: 284 **COE Permit No.: Size (ha):** 1.619
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Dredged material stabilization project.. Marsh name: Tar Bay

Marsh Inventory No.: 392 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hambleton Island BC.

Marsh Inventory No.: 391 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Harris Creek.

Marsh Inventory No.: 390 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Cober.

Marsh Inventory No.: 288 **COE Permit No.:** **Size (ha):** 0.809
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Dredged material stabilization project.. Marsh name: Knapps Narrows - COE

Marsh Inventory No.: 395 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Ray's Point.

Marsh Inventory No.: 394 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Slaughter Creek-Shore.

Marsh Inventory No.: 398 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bliss.

Marsh Inventory No.: 397 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hambleton Island 1977 Breach.

Marsh Inventory No.: 396 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Warbasse.

Marsh Inventory No.: 403 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Berlin.

Marsh Inventory No.: 402 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Francis Somers.

Marsh Inventory No.: 401 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Miller.

Marsh Inventory No.: 400 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Nevius.

Marsh Inventory No.: 399 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Turkey Neck Point.

Marsh Inventory No.: 408 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: St. Mary's College.

Marsh Inventory No.: 407 **COE Permit No.: Size (ha):** 0.121
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Nelson Point Farm.

Marsh Inventory No.: 406 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bullard.

Marsh Inventory No.: 413 **COE Permit No.: Size (ha):** 0.040

State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. G. Callender.

Marsh Inventory No.: 412 **COE Permit No.:** **Size (ha):** 0.324
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: E.G. Uhl.

Marsh Inventory No.: 411 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dunmoyle.

Marsh Inventory No.: 410 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: William Hahn.

Marsh Inventory No.: 419 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: G.A. Van Lennep, Jr.

Marsh Inventory No.: 418 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: S. Hamblin.

Marsh Inventory No.: 417 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Dresser.

Marsh Inventory No.: 416 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Miles River Bridge.

Marsh Inventory No.: 429 **COE Permit No.:** **Size (ha):** 0.243
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: E.B.M. White.

Marsh Inventory No.: 428 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: K. White.

Marsh Inventory No.: 427 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Struse-Arrowhead Farm.

Marsh Inventory No.: 426 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.R. Griswold.

Marsh Inventory No.: 425 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: D.M. Palmer.

Marsh Inventory No.: 424 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: B.E. Blake.

Marsh Inventory No.: 423 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: H.T. Winner.

Marsh Inventory No.: 422 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bob Harris.

Marsh Inventory No.: 421 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: A. Van Dyke.

Marsh Inventory No.: 420 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc.. Marsh name: John Masone.

Marsh Inventory No.: 309 **COE Permit No.:** **Size (ha):** 8.701
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Dredged material stabilization project.. Marsh name: Barren Island

Marsh Inventory No.: 444 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: L.G. Wineland.

Marsh Inventory No.: 443 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: T. Morison.

Marsh Inventory No.: 442 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bejamin Florence.

Marsh Inventory No.: 441 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: D. Gregg III.

Marsh Inventory No.: 440 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. B. Scofield, Jr.

Marsh Inventory No.: 439 **COE Permit No.:** **Size (ha):** 0.324
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Kent Narrows.

Marsh Inventory No.: 438 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W.II. Van Dusen-Spitzer.

Marsh Inventory No.: 437 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: E. Miller (Emerson Pt.).

Marsh Inventory No.: 436 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. King.

Marsh Inventory No.: 435 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: L.G. Conner.

Marsh Inventory No.: 434 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R.C. Morris.

Marsh Inventory No.: 433 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Kleffer, Jr.

Marsh Inventory No.: 432 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: S.M. Bothe.

Marsh Inventory No.: 431 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.C. Bond.

Marsh Inventory No.: 430 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dennis Berg.

Marsh Inventory No.: 479 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M. Millennann.

Marsh Inventory No.: 478 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Gladstone.

Marsh Inventory No.: 477 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: G. Bunting.

Marsh Inventory No.: 476 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Barrett.

Marsh Inventory No.: 475 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M.D. Clark.

Marsh Inventory No.: 474 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W.T. Hershey.

Marsh Inventory No.: 473 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: A.J. Clark.

Marsh Inventory No.: 472 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.W. King.

Marsh Inventory No.: 471 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W.M. Cooper.

Marsh Inventory No.: 470 **COE Permit No.:** **Size (ha):** 0.121
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: T.M. Rauch.

Marsh Inventory No.: 469 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: S. Gilliece.

Marsh Inventory No.: 468 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Polevoy.

Marsh Inventory No.: 467 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. A. Kaplan.

Marsh Inventory No.: 466 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: T. McMahon.

Marsh Inventory No.: 465 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Eco Smugglers Cove.

Marsh Inventory No.: 464 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. P.D. Kay.

Marsh Inventory No.: 463 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Ms. P. Bryan.

Marsh Inventory No.: 462 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.B. Robertson.

Marsh Inventory No.: 461 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc.. Marsh name: J.J. Cottrell.

Marsh Inventory No.: 460 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: E.L. Strohbehn.

Marsh Inventory No.: 459 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W. Brennen.

Marsh Inventory No.: 458 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: S.M. Margolis.

Marsh Inventory No.: 457 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Albert G. Gipe.

Marsh Inventory No.: 456 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: G. G. Tucker.

Marsh Inventory No.: 455 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: DNR Wye Island Demo-SCS.

Marsh Inventory No.: 454 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. E. Throop.

Marsh Inventory No.: 453 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hartages Yacht Club.

Marsh Inventory No.: 452 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.J. Young

Marsh Inventory No.: 451 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.K. Hyatt.

Marsh Inventory No.: 450 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M. Sami.

Marsh Inventory No.: 449 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Hooper Island Marsh.

Marsh Inventory No.: 448 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Thomas Point Restoration.

Marsh Inventory No.: 446 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.H. Hardesty.

Marsh Inventory No.: 445 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Mrs. R. H. Lee.

Marsh Inventory No.: 505 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M. Franks.

Marsh Inventory No.: 504 **COE Permit No.: Size (ha):** 0.202
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Nassetta-Phillips.

Marsh Inventory No.: 503 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Jensens-Ed Fisher.

Marsh Inventory No.: 502 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: P.J. Janson.

Marsh Inventory No.: 501 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: General A.J. Goodpaster.

Marsh Inventory No.: 500 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Timbie.

Marsh Inventory No.: 499 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: P. Wilmerding.

Marsh Inventory No.: 498 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Mr. L. Root.

Marsh Inventory No.: 497 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: G.R. Kilbourn, Jr.

Marsh Inventory No.: 496 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: S. Shaare.

Marsh Inventory No.: 495 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc.. Marsh name: G. Taylor.

Marsh Inventory No.: 494 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R.R. Price.

Marsh Inventory No.: 493 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.B. Wilson.

Marsh Inventory No.: 492 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.K. Hyatt.

Marsh Inventory No.: 491 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R.L. Counts.

Marsh Inventory No.: 490 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: E.A. Rommel, III.

Marsh Inventory No.: 489 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.E. Peck.

Marsh Inventory No.: 488 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: L. Beaumont.

Marsh Inventory No.: 487 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R.A. Simmons.

Marsh Inventory No.: 486 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box

P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Horn Point.

Marsh Inventory No.: 485 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Mr. L. Tucker.

Marsh Inventory No.: 484 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M.S. Kozel.

Marsh Inventory No.: 483 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: D. Proctor.

Marsh Inventory No.: 538 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: D. Hamilton.

Marsh Inventory No.: 537 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: F.V. Lawrence III.

Marsh Inventory No.: 536 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Ali Mehrizi.

Marsh Inventory No.: 535 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. E.H. Breen.

Marsh Inventory No.: 534 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Dr. W. Jewell.

Marsh Inventory No.: 533 **COE Permit No.: Size (ha):** 0.121
State: MD **County: Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.J. Roberts.

Marsh Inventory No.: 532 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Doreen Hamilton, Irish Creek.

Marsh Inventory No.: 531 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: A.E. MacKay.

Marsh Inventory No.: 530 **COE Permit No.:** **Size (ha):** 0.243
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Robert Gladstone.

Marsh Inventory No.: 529 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W. Gettsinger.

Marsh Inventory No.: 528 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Karl Krieger.

Marsh Inventory No.: 526 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.J. Zamoiske.

Marsh Inventory No.: 525 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Ships Point.

Marsh Inventory No.: 524 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: M. Harriman.

Marsh Inventory No.: 523 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R. Garrett.

Marsh Inventory No.: 522 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Don Olson.

Marsh Inventory No.: 521 **COE Permit No.:** **Size (ha):** 0.121
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Anchorage Marina.

Marsh Inventory No.: 520 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Rock Harbor Planting.

Marsh Inventory No.: 519 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Church Creek Marsh.

Marsh Inventory No.: 518 **COE Permit No.:** **Size (ha):** 0.202
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bodkin Island.

Marsh Inventory No.: 517 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: G. Carlson.

Marsh Inventory No.: 516 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J. Cobbs.

Marsh Inventory No.: 515 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C. Petty.

Marsh Inventory No.: 514 **COE Permit No.:** **Size (ha):** 0.243
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Mario-Boiardi-Wye Mills.

Marsh Inventory No.: 513 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: B. DuPont.

Marsh Inventory No.: 512 **COE Permit No.:** **Size (ha):** 0.202
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Cheston on Wye.

Marsh Inventory No.: 511 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J. MacMartin.

Marsh Inventory No.: 321 **COE Permit No.:** **Size (ha):** 0.405
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: . Marsh name: D. B. Cober

Marsh Inventory No.: 556 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Thomas Boone/Maxmore Creek.

Marsh Inventory No.: 555 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Fred C. Meensden/San Domingo Creek.

Marsh Inventory No.: 554 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Laurence E. Diggs III.

Marsh Inventory No.: 553 **COE Permit No.:** **Size (ha):** 0.040

State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Stephanie Trivis/Island Creek.

Marsh Inventory No.: 552 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R.D. Young/Broad Creek.

Marsh Inventory No.: 551 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Joseph L. Morris.

Marsh Inventory No.: 550 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Richard D. Richards.

Marsh Inventory No.: 549 **COE Permit No.:** **Size (ha):** 0.121
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Nord/Cummings Creek.

Marsh Inventory No.: 548 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: H.W. Barrick/Wye River.

Marsh Inventory No.: 547 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Gilbert Hahn/Harris Creek.

Marsh Inventory No.: 546 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Schreiner/Harris Creek

Marsh Inventory No.: 545 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Edgar Garbisch/San Domingo Creek.

Marsh Inventory No.: 544 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Paul Makosky/Barrett's Cove.

Marsh Inventory No.: 543 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Reihl III/ Maxmore Creek.

Marsh Inventory No.: 542 **COE Permit No.:** **Size (ha):** 0.567
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Rouse Corporation.

Marsh Inventory No.: 582 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: J.F. Moore/Trippe Creek.

Marsh Inventory No.: 581 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Robert Price III/Wye River.

Marsh Inventory No.: 580 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: C.J. Lambertson/Ledenham Creek.

Marsh Inventory No.: 579 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Edgar Garbisch

Marsh Inventory No.: 578 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: William S. Gaines/San Domingo Creek.

Marsh Inventory No.: 577 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Bishop Sorge/Island Creek.

Marsh Inventory No.: 576 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: W.R. Simpson/Miles River.

Marsh Inventory No.: 575 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Wilson/Harris Creek.

Marsh Inventory No.: 574 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: George White/Wye River.

Marsh Inventory No.: 573 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Donald Zeman/Ball's Creek.

Marsh Inventory No.: 572 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Richard M. Siegal/Island Creek.

Marsh Inventory No.: 571 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box

P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Robert M. Valliant/Plaindealing Creek.

Marsh Inventory No.: 570 **COE Permit No.: Size (ha):** 0.202
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Howard W. Williams/Island Creek.

Marsh Inventory No.: 569 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: James Arnold/Glebe Creek.

Marsh Inventory No.: 568 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Colin Ferenback/Plaindealing Creek.

Marsh Inventory No.: 567 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Richard Crowly/LeGates Cove.

Marsh Inventory No.: 566 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John L. Cobbs/San Domingo Creek.

Marsh Inventory No.: 565 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Clinton Taylor/Folly's Cove.

Marsh Inventory No.: 563 **COE Permit No.: Size (ha):** 0.202
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Alan Geller/Huntington Creek.

Marsh Inventory No.: 562 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Charles Peck/Solitude Creek.

Marsh Inventory No.: 561 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: L. David Reynolds/San Domingo Creek.

Marsh Inventory No.: 560 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Muriel Blumenthal/Trippe Creek.

Marsh Inventory No.: 559 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Janet Brown/Goose Cove.

Marsh Inventory No.: 594 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Craig Henry/Broad Creek.

Marsh Inventory No.: 593 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Sumner Park/Shipshead Creek.

Marsh Inventory No.: 592 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Edward Dwyer/Oak Creek.

Marsh Inventory No.: 591 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc.. Marsh name: Peter Black/Maxmore Creek.

Marsh Inventory No.: 590 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Richard Granville/Tar Creek.

Marsh Inventory No.: 588 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Stephen Miller.

Marsh Inventory No.: 587 **COE Permit No.: Size (ha):** 0.162
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Clayton Hurt.

Marsh Inventory No.: 586 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Michael Abramo/Wye River.

Marsh Inventory No.: 584 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michacls, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Archie MacKay/Snug Harbor.

Marsh Inventory No.: 583 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Oscar Carlson.

Marsh Inventory No.: 599 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Robert Simmons/Cummings Creek.

Marsh Inventory No.: 598 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620

Comments: Built by Environmental Concern, Inc.. Marsh name: Langly Shook/San Domingo Creek.

Marsh Inventory No.: 597 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: William Baldwin.

Marsh Inventory No.: 596 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Combined Sewer Overflow Project.

Marsh Inventory No.: 614 **COE Permit No.: Size (ha):** 0.081
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Mary Hagy.

Marsh Inventory No.: 613 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Carol McGowan.

Marsh Inventory No.: 612 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Sergio Proserpi.

Marsh Inventory No.: 611 **COE Permit No.: Size (ha):** 0.162
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Paul Fleagane.

Marsh Inventory No.: 610 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Jan Gervin.

Marsh Inventory No.: 609 **COE Permit No.: Size (ha):** 0.040
State: MD **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Elliott Bliss.

Marsh Inventory No.: 608 **COE Permit No.: Size (ha):** 0.081

State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Cove View Condos.

Marsh Inventory No.: 607 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Maritime Museum/Chesapeake Bay.

Marsh Inventory No.: 606 **COE Permit No.:** **Size (ha):** 0.162
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Reilly.

Marsh Inventory No.: 605 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Joseph Schuble.

Marsh Inventory No.: 604 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Garth Harding.

Marsh Inventory No.: 603 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Thorman.

Marsh Inventory No.: 602 **COE Permit No.:** **Size (ha):** 0.121
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Willard Parker.

Marsh Inventory No.: 601 **COE Permit No.:** **Size (ha):** 0.121
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: John Akridge.

Marsh Inventory No.: 600 **COE Permit No.:** **Size (ha):** 0.081
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Robert Kennedy.

Marsh Inventory No.: 447 **COE Permit No.:** **Size (ha):** 0.040
State: MD **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: Queenslanding.

Marsh Inventory No.: 672 **COE Permit No.:** **Size (ha):** 0.708
State: MA **County:** Suffolk **Bay :** Boston Harbor
Source of information: Ms. Laurie Cullen, Massport, (617) 973-5389
Comments: . Marsh name: Massport/Logan Airport.

Marsh Inventory No.: 615 **COE Permit No.:** **Size (ha):**
State: MA **County:** Suffolk / Norfolk **Bay :**
Source of information: Dr. Lars H. Carlson, Sverdrup Corp., 2 Center Plaza, Boston, MA 02108-1906, (617) 742-8060; or Dr. Norton H. Nickerson, Dept. of Biology, Tufts Univ., Medford, MA 02155, (617) 627-3544 FEIS/Report, Old Colony Railroad Rehabilitation Project. (EOEA 5840).
Comments: . Marsh name: Old Colony Railroad rehabilitation project.

Marsh Inventory No.: 415 **COE Permit No.:** **Size (ha):** 0.202
State: MA **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. , Inc.. Marsh name: Quincy MA.

Marsh Inventory No.: 131 **COE Permit No.:** MS87-00966-Y **Size (ha):** 0.040
State: MS **County:** Hancock **Bay :** Mississippi Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 133 **COE Permit No.:** MS91-01502-I **Size (ha):** 0.259
State: MS **County:** Harrison **Bay :** Mississippi Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 132 **COE Permit No.:** MS90-02404-H **Size (ha):** 0.004
State: MS **County:** Jackson **Bay :** Mississippi Sound; Bayou Cassotte
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 134 **COE Permit No.:** MS91-01824-U **Size (ha):** 0.028
State: MS **County:** Jackson **Bay :** Mississippi Sound; Pascagoula River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 668 **COE Permit No.:** **Size (ha):** 0.405
State: NH **County:** Rockingham **Bay :** Little Harbor
Source of information: Mr. Frank Richardson, NH Wetlands Board, (603) 271-2147
Comments: . Marsh name: Wentworth Hotel.

Marsh Inventory No.: 669 **COE Permit No.:** **Size (ha):** 0.405
State: NH **County:** Rockingham **Bay :** North Mill Pond
Source of information: Mr. Dan McHugh, Great Meadow Farms, Sawyer Island, Rowley, MA 01969, (508) 948-7870
Comments: . Marsh name: NH Port Authority.

Marsh Inventory No.: 671 **COE Permit No.:** **Size (ha):** 1.214
State: NH **County:** Rockingham **Bay :** Rye Harbor
Source of information: Mr. Pete Helm, New Hampshire Office of State Planning, Coastal Program, 2-1/2 Beacon Street, Concord, NH 03301, (603) 271-2155
Comments: . Marsh name: Awcomin Marsh.

Marsh Inventory No.: 388 **COE Permit No.:** **Size (ha):** 0.081
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Tidal Stream.

Marsh Inventory No.: 404 **COE Permit No.:** **Size (ha):** 0.040
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Sloop Creek (C1-3).

Marsh Inventory No.: 409 **COE Permit No.:** **Size (ha):** 0.081
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Monmouth County.

Marsh Inventory No.: 302 **COE Permit No.:** **Size (ha):** 0.405
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Tidal marsh mitigation project.. Marsh name: SI-3B OSCA

Marsh Inventory No.: 300 **COE Permit No.:** **Size (ha):** 2.266
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc.. Marsh name: R-1 Contract

Marsh Inventory No.: 414 **COE Permit No.:** **Size (ha):** 0.121
State: NJ **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box

P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Shark River Island.

Marsh Inventory No.: 481 **COE Permit No.: Size (ha):** 2.064
State: NJ **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Newton Creek.

Marsh Inventory No.: 506 **COE Permit No.: Size (ha):** 2.266
State: NJ **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Pennsauken Wetland.

Marsh Inventory No.: 540 **COE Permit No.: Size (ha):** 0.162
State: NJ **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Tozour.

Marsh Inventory No.: 539 **COE Permit No.: Size (ha):** 1.416
State: NJ **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: NJ Route 130.

Marsh Inventory No.: 353 **COE Permit No.: Size (ha):**
State: NY **County:** Bronx **Bay :** Pelham Bay
Source of information: Mr. Marc Matsil, Director of the Natural Resources Group, City of New York Parks and Recreation, 1234 5th Avenue, Rm. 233, New York, NY 10029, (212) 360-1417
Comments: This is a restoration project. Marsh was not planted as of 3/93.. Marsh name: Twin Island Marsh.

Marsh Inventory No.: 354 **COE Permit No.: Size (ha):**
State: NY **County:** Queens **Bay :**
Source of information: Mr. Marc Matsil, Director of the Natural Resources Group, City of New York Parks and Recreation, 1234 5th Avenue, Rm. 233, New York, NY 10029, (212) 360-1417
Comments: . Marsh name: Alley Creek.

Marsh Inventory No.: 355 **COE Permit No.: Size (ha):** 0.405
State: NY **County:** Richmond **Bay :** Arthur Kill; Old Place Creek
Source of information: Mr. Marc Matsil, Director of the Natural Resources Group, City of New York Parks and Recreation, 1234 5th Avenue, Rm. 233, New York, NY 10029, (212) 360-1417
Comments: .

Marsh Inventory No.: 285 **COE Permit No.: Size (ha):** 0.809
State: NY **County: Bay :**

Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Shoreline erosion control project.. Marsh name: Centerport Harbor

Marsh Inventory No.: 290 **COE Permit No.:** **Size (ha):** 5.666
State: NY **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Dredged material stabilization project.. Marsh name: Seaford.

Marsh Inventory No.: 297 **COE Permit No.:** **Size (ha):** 4.047
State: NY **County:** **Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Tidal marsh restoration project.. Marsh name: Port Washington - Solomon

Marsh Inventory No.: 139 **COE Permit No.:** 88-N-010-0329 **Size (ha):** 0.728
State: NC **County:** Brunswick **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 138 **COE Permit No.:** 86-N-010-0178 **Size (ha):** 0.355
State: NC **County:** Brunswick **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 140 **COE Permit No.:** 85-N-015-0276 **Size (ha):** 0.012
State: NC **County:** Camden **Bay :** Albemarle Sound; Pasquotank River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 146 **COE Permit No.:** 87-N-016-0307 **Size (ha):** 0.607
State: NC **County:** Carteret **Bay :** Newport River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 147 **COE Permit No.:** 88-N-016-0372 **Size (ha):** 0.425
State: NC **County:** Carteret **Bay :** Pamlico Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 148 **COE Permit No.:** 90-N-028-0301 **Size (ha):** 0.012

State: NC **County:** Dare **Bay :** Pamlico Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 141 **COE Permit No.:** 91-N-065-0091 **Size (ha):** 0.045
State: NC **County:** New Hanover **Bay :** Cape Fear River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 143 **COE Permit No.:** 85-N-065-0146 **Size (ha):** 0.005
State: NC **County:** New Hanover **Bay :** Masonboro Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 145 **COE Permit No.:** 89-N-067-0381 **Size (ha):** 0.035
State: NC **County:** Onslow **Bay :** New River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 142 **COE Permit No.:** 86-N-010-0057 **Size (ha):** 0.024
State: NC **County:** Pasquotank **Bay :** Little River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 137 **COE Permit No.:** 86-N-071-0047 **Size (ha):** 0.486
State: NC **County:** Pender **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 136 **COE Permit No.:** 84-N-065-0033 **Size (ha):** 0.051
State: NC **County:** **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 135 **COE Permit No.:** 83-N-010-0103 **Size (ha):** 0.202
State: NC **County:** **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.

Comments: .

Marsh Inventory No.: 649 **COE Permit No.:** **Size (ha):**
State: NC **County:** **Bay :** Albermarle Sound
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: No *S. alterniflora* planted..

Marsh Inventory No.: 628 **COE Permit No.:** **Size (ha):** 0.405
State: NC **County:** **Bay :** Bogue Sound
Source of information: Dr. Stephen S. Broome, North Carolina State Univ., Dept. of Soil Science, Box 7619, Raleigh, NC 27695-7619, (919) 515-2643 (Broome, 1986)
Comments: Was planted on 0.45, 0.6, and 0.9-m centers. Stand appears to have filled in well, forming a border marsh infront of a bulkhead..

Marsh Inventory No.: 631 **COE Permit No.:** **Size (ha):**
State: NC **County:** **Bay :** Cape Fear River; Snow's Cut.
Source of information: Dr. Christopher B. Craft, Duke Univ. Wetland Center, School of the Environment, Duke University, Durham, NC 27706, (919) 684-2619 (Craft, 1988)
Comments: Was reported in a study comparing the organics and nutrients of man-made and natural *S. alterniflora* marshes. This marsh was about 13 years old..

Marsh Inventory No.: 144 **COE Permit No.:** 84-N-065-0009 **Size (ha):** 0.006
State: NC **County:** **Bay :** Middle Sound; Motts Channel
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 666 **COE Permit No.:** **Size (ha):** 1.214
State: NC **County:** **Bay :** Pamlico Sound
Source of information: Dr. Stephen S. Broome, North Carolina State Univ., Dept. of Soil Science, Box 7619, Raleigh, NC 27695-7619, (919) 515-2643 (Broome, 1989)
Comments: Thought to be planted on 0.7-m centers. Stand appears to have filled in well, forming a well developed marsh along a tidal channel..

Marsh Inventory No.: 629 **COE Permit No.:** **Size (ha):** 0.040
State: NC **County:** **Bay :** Pamlico Sound; Neuse River
Source of information: Dr. Stephen S. Broome, North Carolina State Univ., Dept. of Soil Science, Box 7619, Raleigh, NC 27695-7619, (919) 515-2643 (Broome, 1983)
Comments: Test of fertilizers on *S. alterniflora* growth..

Marsh Inventory No.: 632 **COE Permit No.:** **Size (ha):**
State: NC **County:** **Bay :** Pamlico Sound; Oregon Inlet.
Source of information: Dr. Christopher B. Craft, Duke Univ. Wetland Center, School of the Environment, Duke University, Durham, NC 27706, (919) 684-2619 (Craft, 1988)
Comments: Was reported in a study comparing the organics and nutrients of man-made and natural *S. alterniflora* marshes. This marsh was about 15 years old..

Marsh Inventory No.: 640 **COE Permit No.:** **Size (ha):**
State: NC **County:** **Bay :** Pamlico Sound; Pamlico River; Durham Creek.
Source of information: Dr. Christopher B. Craft, Duke Univ. Wetland Center, School of the Environment, Duke University, Durham, NC 27706, (919) 684-2619 (Craft, 1988)

Comments: Was reported in a study comparing the organics and nutrients of man-made and natural *S. alterniflora* marshes. This marsh was about 4 years old..

Marsh Inventory No.: 641 **COE Permit No.:** **Size (ha):**
State: NC **County:** **Bay :** Pamlico Sound; Pamlico River; Durham Creek.
Source of information: Dr. Christopher B. Craft, Duke Univ. Wetland Center, School of the Environment, Duke University, Durham, NC 27706, (919) 684-2619 (Craft, 1988)
Comments: Was reported in a study comparing the organics and nutrients of man-made and natural *S. alterniflora* marshes. This marsh was a little over 1-yr old..

Marsh Inventory No.: 630 **COE Permit No.:** **Size (ha):** 0.405
State: NC **County:** **Bay :** Roanoke Sound
Source of information: Dr. Stephen S. Broome, North Carolina State Univ., Dept. of Soil Science, Box 7619, Raleigh, NC 27695-7619, (919) 515-2643 (Broome, 1987)
Comments: This marsh was still surviving and protecting the shore from erosion in 1987..

Marsh Inventory No.: 657 **COE Permit No.:** **Size (ha):** 0.202
State: RI **County:** Washington **Bay :** Winnapaug Pond
Source of information: Mr. Paul J. Shea, Independent Environmental Consultants, Inc., Exeter, RI, (401) 294-3909
Comments: This was an inkind mitigation/restoration.

Marsh Inventory No.: 152 **COE Permit No.:** 90-2X-018 **Size (ha):** 0.121
State: SC **County:** Beaufort **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 168 **COE Permit No.:** 88-2A-101 **Size (ha):** 0.923
State: SC **County:** Beaufort **Bay :** Port Royal Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 167 **COE Permit No.:** 90-3A-383 **Size (ha):** 0.032
State: SC **County:** Beaufort **Bay :** Port Royal Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 166 **COE Permit No.:** 91-2A-004 **Size (ha):** 0.028
State: SC **County:** Beaufort **Bay :** Port Royal Sound
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 165 **COE Permit No.:** 84-2Z-031 **Size (ha):** 0.291
State: SC **County:** Beaufort **Bay :** Port Royal Sound; Beaufort River

Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 153 **COE Permit No.:** 82-4C-294 **Size (ha):** 0.364
State: SC **County:** Charleston **Bay :** Ashley River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 158 **COE Permit No.:** 89-2T-262 **Size (ha):** 6.071
State: SC **County:** Charleston **Bay :** Charleston Harbor
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 157 **COE Permit No.:** 90-2A-189 **Size (ha):** 0.291
State: SC **County:** Charleston **Bay :** Charleston Harbor
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 156 **COE Permit No.:** 88-2B-234 **Size (ha):** 0.486
State: SC **County:** Charleston **Bay :** Charleston Harbor
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 155 **COE Permit No.:** 86-2B-331 **Size (ha):** 2.226
State: SC **County:** Charleston **Bay :** Charleston Harbor
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 154 **COE Permit No.:** 85-3T-316 **Size (ha):** 0.081
State: SC **County:** Charleston **Bay :** Charleston Harbor
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 161 **COE Permit No.:** 85-3S-211 **Size (ha):** 0.049
State: SC **County:** Charleston **Bay :** Cooper River; Shem Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 160 **COE Permit No.:** 84-3Z-320 **Size (ha):** 0.006
State: SC **County:** Charleston **Bay :** Cooper River; Wando River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 163 **COE Permit No.:** 90-2A-025 **Size (ha):** 0.405
State: SC **County:** Charleston **Bay :** North Edisto River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 171 **COE Permit No.:** 86-3D-219 **Size (ha):** 0.008
State: SC **County:** Charleston **Bay :** Stono River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 170 **COE Permit No.:** 85-2D-114 **Size (ha):** 0.005
State: SC **County:** Charleston **Bay :** Stono River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 169 **COE Permit No.:** 84-2Z-058 **Size (ha):** 0.728
State: SC **County:** Charleston **Bay :** Stono River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 149 **COE Permit No.:** 89-3X-217 **Size (ha):** 0.012
State: SC **County:** Charleston **Bay :**
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 174 **COE Permit No.:** 89-3T-289 **Size (ha):** 0.174
State: SC **County:** Georgetown **Bay :** Winyah Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 173 **COE Permit No.:** 87-3D-298 **Size (ha):** 0.295
State: SC **County:** Georgetown **Bay :** Winyah Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 151 **COE Permit No.:** 83-4Z-278 **Size (ha):** 0.093
State: SC **County:** **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 150 **COE Permit No.:** 82-3C-172 **Size (ha):** 0.202
State: SC **County:** **Bay :** AIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 159 **COE Permit No.:** 82-3C-221 **Size (ha):** 0.232
State: SC **County:** **Bay :** Cooper River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 162 **COE Permit No.:** 83-3Z-218 **Size (ha):** 0.102
State: SC **County:** **Bay :** Jarvis Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 164 **COE Permit No.:** 83-5D-110 **Size (ha):** 0.809
State: SC **County:** **Bay :** Port Royal Sound; Broad River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 172 **COE Permit No.:** 83-3Z-203 **Size (ha):** 0.019
State: SC **County:** **Bay :** Wando River
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 180 **COE Permit No.:** 18189 **Size (ha):** 0.243
State: TX **County:** Aransas **Bay :** Aransas Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 178 **COE Permit No.:** 16622(01) **Size (ha):** 0.069
State: TX **County:** Aransas **Bay :** Aransas Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 176 **COE Permit No.:** 17326 **Size (ha):** 0.020
State: TX **County:** Aransas **Bay :** Aransas Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 175 **COE Permit No.:** 16622 **Size (ha):** 0.008
State: TX **County:** Aransas **Bay :** Aransas Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 227 **COE Permit No.:** 16830 **Size (ha):** 0.894
State: TX **County:** Brazoria **Bay :** Galveston Bay; West Bay; Oyster Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 215 **COE Permit No.:** 17026 **Size (ha):** 0.304
State: TX **County:** Calhoun **Bay :** Matagorda Bay; Carancahua Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 213 **COE Permit No.:** 16519 **Size (ha):** 0.020
State: TX **County:** Calhoun **Bay :** Matagorda Bay; Carancahua Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 216 **COE Permit No.:** 14541(02) **Size (ha):** 0.809
State: TX **County:** Calhoun **Bay :** Matagorda Bay; Lavaca Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 224 **COE Permit No.:** 17955 **Size (ha):** 0.202
State: TX **County:** Calhoun **Bay :** San Antonio Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702;

(813) 893-3503.
Comments: .

Marsh Inventory No.: 704 **COE Permit No.:** 15341(01) **Size (ha):**
State: TX **County:** Cameron **Bay :** Laguna Madre
Source of information: Mr. Gary Galbraith, Espey, Huston & Ass, Inc., (512) 327-6840
Comments: *S. alterniflora* was planted on 3-ft centers..

Marsh Inventory No.: 211 **COE Permit No.:** 17533 **Size (ha):** 0.040
State: TX **County:** Cameron **Bay :** Laguna Madre
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 209 **COE Permit No.:** 17526 **Size (ha):** 0.263
State: TX **County:** Cameron **Bay :** Laguna Madre
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 208 **COE Permit No.:** 16147 **Size (ha):** 0.527
State: TX **County:** Cameron **Bay :** Laguna Madre
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 699 **COE Permit No.:** 15537(05) **Size (ha):** 1.222
State: TX **County:** Cameron **Bay :** Laguna Madre; Lower
Source of information: Phoenix Huston Construction Co., Inc., P.O. Box 73562, Houston, TX 77273, (713) 580-4776
Comments: *S. alterniflora* was planted as single stems on 3-ft centers.. Marsh name: Boardwalk.

Marsh Inventory No.: 201 **COE Permit No.:** 17837 **Size (ha):** 3.238
State: TX **County:** Chambers **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 198 **COE Permit No.:** 17664 **Size (ha):** 0.040
State: TX **County:** Chambers **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 193 **COE Permit No.:** 17318 **Size (ha):** 1.113
State: TX **County:** Chambers **Bay :** Galveston Bay; East Bay; GIWW

Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 205 **COE Permit No.:** 18052 **Size (ha):** 0.004
State: TX **County:** Galveston **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 203 **COE Permit No.:** 17848 **Size (ha):** 0.567
State: TX **County:** Galveston **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 200 **COE Permit No.:** 17962 **Size (ha):** 0.036
State: TX **County:** Galveston **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 183 **COE Permit No.:** 13636(02) **Size (ha):** 0.040
State: TX **County:** Galveston **Bay :** Galveston Bay; Clear Lake
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 182 **COE Permit No.:** 13926(01) **Size (ha):** 0.186
State: TX **County:** Galveston **Bay :** Galveston Bay; Clear Lake; Jarbo Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 197 **COE Permit No.:** 16379 **Size (ha):** 0.405
State: TX **County:** Galveston **Bay :** Galveston Bay; Dickinson Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 194 **COE Permit No.:** 18034 **Size (ha):** 0.022
State: TX **County:** Galveston **Bay :** Galveston Bay; East Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 206 **COE Permit No.:** 18891 **Size (ha):** 0.081
State: TX **County:** Galveston **Bay :** Galveston Bay; Jones Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 234 **COE Permit No.:** 17800 **Size (ha):** 0.809
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 233 **COE Permit No.:** 18958 **Size (ha):** 1.918
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 231 **COE Permit No.:** 17875 **Size (ha):** 0.239
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 230 **COE Permit No.:** 17937 **Size (ha):** 0.004
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 225 **COE Permit No.:** 16677 **Size (ha):** 0.405
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 235 **COE Permit No.:** 18982 **Size (ha):** 0.081
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay; Offatts Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 232 **COE Permit No.:** 18330/1 **Size (ha):** 2.258
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay; Offatts Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters,

Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 228 **COE Permit No.:** 17073 **Size (ha):** 0.405
State: TX **County:** Galveston **Bay :** Galveston Bay; West Bay; Offatts Bayou
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 229 **COE Permit No.:** 17240 **Size (ha):** 0.567
State: TX **County:** Galveston ? **Bay :** Galveston Bay; West Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 204 **COE Permit No.:** 18195 **Size (ha):** 0.040
State: TX **County:** Harris **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 202 **COE Permit No.:** 17759 **Size (ha):** 1.578
State: TX **County:** Harris **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 199 **COE Permit No.:** 17866 **Size (ha):** 0.093
State: TX **County:** Harris **Bay :** Galveston Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 181 **COE Permit No.:** 16601(01) **Size (ha):** 0.012
State: TX **County:** Harris ? **Bay :** Galveston Bay; Clear Lake; Clear Creek
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 223 **COE Permit No.:** 19377 **Size (ha):** 0.121
State: TX **County:** Jefferson **Bay :** Sabine Lake
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 190 **COE Permit No.:** 16533 **Size (ha):** 0.389
State: TX **County:** Nueces **Bay :** Corpus Christi Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 189 **COE Permit No.:** 17371 **Size (ha):** 0.809
State: TX **County:** Nueces **Bay :** Corpus Christi Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 188 **COE Permit No.:** 13192(05) **Size (ha):** 1.214
State: TX **County:** Nueces **Bay :** Corpus Christi Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 185 **COE Permit No.:** 16816 **Size (ha):** 0.567
State: TX **County:** Nueces **Bay :** Corpus Christi Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 187 **COE Permit No.:** 17191 **Size (ha):** 0.036
State: TX **County:** Nueces **Bay :** Corpus Christi Bay; La Quinta Channel
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 217 **COE Permit No.:** 18020 **Size (ha):** 3.035
State: TX **County:** Nueces **Bay :** Corpus Christi Bay; Nueces Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 218 **COE Permit No.:** 16213 **Size (ha):** 1.680
State: TX **County:** Nueces **Bay :** Corpus Christi Bay; Oso Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 210 **COE Permit No.:** 17181 **Size (ha):** 0.101
State: TX **County:** Nueces **Bay :** Laguna Madre; GIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702;

(813) 893-3503.
Comments: .

Marsh Inventory No.: 222 **COE Permit No.:** 18286 **Size (ha):** 0.279
State: TX **County:** Orange **Bay :** Sabine Lake
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 220 **COE Permit No.:** Permit # G16475 **Size (ha):** 0.142
State: TX **County:** San Patricio **Bay :** Aransas Bay; Redfish Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 219 **COE Permit No.:** 16412 **Size (ha):** 0.186
State: TX **County:** San Patricio **Bay :** Aransas Bay; Redfish Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 212 **COE Permit No.:** 16560 **Size (ha):** 3.359
State: TX **County:** San Patricio **Bay :** Aransas Bay; Redfish Bay; GIWW
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 192 **COE Permit No.:** 17847/1 **Size (ha):** 22.259
State: TX **County:** San Patricio **Bay :** Corpus Christi Bay
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 207 **COE Permit No.:** 16656 **Size (ha):** 0.101
State: TX **County:** **Bay :** Gulf of Mexico
Source of information: Mr. Andreas Mager, Jr., NMFS SE Region Headquarters, Habitat Conservation Division, 9721 Executive Center Drive, St. Petersburg, FL 33702; (813) 893-3503.
Comments: .

Marsh Inventory No.: 648 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Broad Bay
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: No *S. alterniflora* planted..

Marsh Inventory No.: 726 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay, James River

Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Camp Chanco

Marsh Inventory No.: 731 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay;
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Tankard

Marsh Inventory No.: 745 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay;
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Vanderslice

Marsh Inventory No.: 675 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; Cherrystone Inlet; Wescoat Cove
Source of information: (Knudsen et al, 1982)
Comments: This is likely the oldest man-made *S. alterniflora* marsh created to protect the shore from erosion. The marsh was used as a test site to gage wave energy dissipation by a marsh..

Marsh Inventory No.: 737 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; Fleets Bay; Tabbs Creek
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Poole

Marsh Inventory No.: 742 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; James River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with both species in June 1983, and again in July 1983.. Marsh name: King

Marsh Inventory No.: 741 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; James River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Mariner's Museum

Marsh Inventory No.: 739 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; James River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Eley

Marsh Inventory No.: 674 **COE Permit No.: Size (ha):**

State: VA **County:** **Bay :** Chesapeake Bay; James River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Hog Island

Marsh Inventory No.: 676 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Kings Creek
Source of information: (Knudsen et al, 1982)
Comments: The marsh was used as a test site to gage wave energy dissipation by a marsh..

Marsh Inventory No.: 740 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Lynnhaven Roads; Lynnhaven Bay; Broad Bay
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Broad Bay Manor

Marsh Inventory No.: 744 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Lynnhaven Roads; Lynnhaven Bay; Broad Bay; Linkhorn Bay
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Johnsen

Marsh Inventory No.: 678 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Mojack Bay
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Mountjoy

Marsh Inventory No.: 743 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Occohannock Creek
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Marshall

Marsh Inventory No.: 736 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Piankatank River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. *S. alterniflora* was replanted in May 1982, and both species were replanted in June 1983.. Marsh name: Murphy

Marsh Inventory No.: 729 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Potomac River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Gill

Marsh Inventory No.: 735 **COE Permit No.:** **Size (ha):**

State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. Was replanted with both species in May 1982 and again in June 1983.. Marsh name: Garrett

Marsh Inventory No.: 734 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. *S. alterniflora* was replanted with both species in May 1982.. Marsh name: Durham West

Marsh Inventory No.: 733 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with both species in May 1982.. Marsh name: Durham South

Marsh Inventory No.: 732 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. *S. alterniflora* was replanted in June 1983. Marsh name: Wellford

Marsh Inventory No.: 727 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* and *S. patens* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted in May, 1982.. Marsh name: Windmill Point

Marsh Inventory No.: 728 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; Rappahannock River; Corrotoman River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion. *S. alterniflora* and *S. patens* was replanted in June, 1983.. Marsh name: Lee

Marsh Inventory No.: 746 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; York River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: Collier

Marsh Inventory No.: 738 **COE Permit No.:** **Size (ha):**
State: VA **County:** **Bay :** Chesapeake Bay; York River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion. The marsh was replanted with *S. alterniflora* in June 1983.. Marsh name: York River State Park

Marsh Inventory No.: 747 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay; York River; Pamunkey River
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Davis

Marsh Inventory No.: 730 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Chesapeake Bay;mouth of Occohannock Creek
Source of information: (Hardaway et al, 1985)
Comments: A fringe marsh of *S. alterniflora* and *S. patens* was planted on 1.5-ft centers to control shore erosion.. Marsh name: Hickman

Marsh Inventory No.: 652 **COE Permit No.: Size (ha):**
State: VA **County: Bay :** Occohannack Creek
Source of information: Donald W. Hamer, U.S. Soil Conservation Service, 1536 Rt. 9 North, Cape May Court House, NJ 08210 (609) 465-5901
Comments: .

Marsh Inventory No.: 389 **COE Permit No.: Size (ha):** 0.040
State: VA **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: White Stone.

Marsh Inventory No.: 291 **COE Permit No.: Size (ha):** 0.405
State: VA **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Shoreline erosion control project.. Marsh name: Eastville.

Marsh Inventory No.: 508 **COE Permit No.: Size (ha):** 0.162
State: VA **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Chincoteague Mitigation.

Marsh Inventory No.: 507 **COE Permit No.: Size (ha):** 0.040
State: VA **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: Willis Wharf.

Marsh Inventory No.: 557 **COE Permit No.: Size (ha):** 0.202
State: VA **County: Bay :**
Source of information: Dr. Edgar Garbisch, Environmental Concern, Inc., P.O.Box P, St. Michaels, MD 21663, (410) 745-9620
Comments: Built by Environmental Concern, Inc. . Marsh name: VIDCO.

SECTION III

DIRECTORY OF HUMAN RESOURCES

Table of Contents

Section III -- Directory of Human Resources

FOREWORD iii

ACKNOWLEDGMENTS v

DIRECTORY 1
- Alabama 1
- California 2
- Connecticut 3
- Delaware 5
- District of Columbia 7
- Florida 7
- Georgia 12
- Louisiana 12
- Maine 18
- Maryland 19
- Massachusetts 21
- Mississippi 23
- New Hampshire 25
- New Jersey 25
- New York 27
- North Carolina 27
- Oregon 29
- Pennsylvania 30
- Rhode Island 30
- South Carolina 31
- Texas 32
- Virginia 37
- Washington 38

DIRECTORY FORM 43

INDEX of PARTICIPANTS. 45

Foreword

Each year, the coastal areas of the United States are burdened by increasing populations, industrial growth, and expanded recreational use. These growths lead to increased use of estuaries that often threatens the well being and even the existence of coastal wetland habitats. The salt marshes that abounded along most of our estuaries have often been dredged or filled and thus converted for man's use. Many of these changes to salt marshes occurred before these marshes had been shown to serve many of the beneficial functions they do, such as: protect shorelines from erosion, reduce the impacts of floods, remove toxic wastes, and provide valuable habitat that supports fish and wildlife. Our increased understanding of the way these marshes function has promoted a national desire to preserve and restore coastal wetlands.

The purpose of this directory is to provide our readers with a list of people involved in salt marsh ecology, with particular emphasis on those working on enhancement, restoration, and creation of *Spartina alterniflora* marshes. We hope and expect the directory will be of use to aid in information exchange among scientists working in this field, and between scientists and lay people concerned about their local estuary or marsh, coastal landowners interested in preserving their property, and companies needing assistance with habitat mitigation. This directory is not a "complete" listing of all persons and organizations that are involved and have pertinent knowledge on our subject. It is a list of those who kindly responded to our inquiries and who recognize the directory as another tool to help in the preserving and restoring of salt marshes and coastal wetlands. The directory is intended to be "living" in the sense that periodic updates are anticipated. We will be pleased to add people we missed if you will fill in a directory form (at the back of this directory) and return it to us.

The directory is organized alphabetically by state. People are listed alphabetically by last name under the state in their address. An alphabetical index of participants is included, and is ordered by last names and initials. A directory form is included at the back.

Acknowledgments

To those of you included in this directory, our sincere thanks for your participation. And if we have omitted an important player, it was purely accidental.

We wish to thank our four regional assistants who helped find many participants and recorded the early entries.

Northeast:	Mr. Chris Luis Sardella
Atlantic:	Mr. Andrew L. Bunch
Gulf:	Dr. Joseph L. Staton
West:	Mr. Russell E. DiFiori

We also thank the NMFS Southeast Fisheries Science Center and the Coastal Ocean Program for sponsoring this directory project as part of a grant to study the technology and success in restoration, enhancement, and creation of salt marshes in the United States.

Good Planting!

Directory

Alabama

Mr. Hugh M. Dowling
Dowling Environmental Services
P.O. Box 66003
Mobile, AL 36660
Work phone: **(205) 476-2010**
FAX: (205) 476-2011
President.
Projects:
Has planted 30-40 projects over the last 10 years. Marsh plantings are guaranteed.

Mr. Steve Heath
Alabama Marine Resources
P.O. Box 189
Dauphin Island, AL 36528
Work phone: **(205) 861-2882**
FAX: (205) 861-8741
Fisheries resource and habitat manager; coastal waters and wetlands, and their fisheries.
Projects:
1. Reviews proposed alterations of coastal habitat to preserve fisheries and wildlife habitat.
2. Monitors progress of mitigation efforts, some involving *Spartina alterniflora* salt marshes.
3. Assists in evaluating fisheries, and in developing fisheries management strategies.

Mr. Arthur L. Middleton
U.S. Army Corps of Engineers, Mobile District
Operations Division, Regulatory Branch
P.O. Box 2288
Mobile, AL 36628-0001
Work phone: **(205) 694-3786**
FAX: (205) 694-4264
Supervisory Ecologist.
Projects:
1. Presently (1992) installing in Mobile, Alabama, Navy home port site, a *Spartina alterniflora* marsh and a *Juncus* marsh of about 25 acres (unsure about percentages of each marsh type).
2. Delta Port development community along the west of Fowl River. Combination of *Spartina alterniflora* and *Juncus*, about 45 acres installed since 1987.

Mr. Edwin R. "Randy" Roach
U.S. Fish and Wildlife Service
Division of Ecological Services
P.O. Box 1197
Daphne, AL 36526
Work phone: **(205) 690-2181**
FAX: -
Senior Field Biologist.
Projects:
Naval Station, Mobile, AL. Marsh restoration with 75% *Juncus roemerianus* and 25% *Spartina alterniflora.*

Dr. Judy P. Stout
University of Southern Alabama
Marine Environmental Sciences Consortium, Dauphin Island Sea Lab
P.O. Box 369-370
Dauphin Island, AL 36528
Work phone: **(205) 861-7529**
FAX: (205) 861-4646
Associate Director; Estuarine Ecologist.
Projects:
1. Dauphin Island Sea Lab; 1-1.5 acre marsh restoration began in January 1993; plantings of 50% *S. alterniflora* and 50% *J. roemerianus.*
2. Evaluation of coastal wetlands from mitigation in coastal Alabama; final report available and includes created *S. alterniflora* wetlands.

Mr. Thomas D. Thornhill
U.S. Fish and Wildlife Service
P.O. Drawer 1190
Daphne, AL 36526
Work phone: **(205) 690-2181**
FAX: (205) 694-4222
Fish and Wildlife Biologist.
Projects:
1. Ongoing monitoring of mitigation project for Chevron of Pascagoula; planted earlier and destroyed by hurricane--replanted in 1988 (approx.) *Spartina* and *Juncus* marsh that is surviving well.
2. Planned site for Gulfport not yet complete by Vitor and Associates.

Dr. Barry A. Vittor
Barry A. Vittor & Associates, Inc.
Environmental Research & Consulting
8060 Cottage Hill Road
Mobile, AL 36695
Work phone: **(205) 633-6100**
FAX: (205) 633-6738
Director; wetlands creation/restoration.
Projects:
1. Restoration and creation of wetlands including *Spartina alterniflora* marsh along the West Fowl River near Mobile, AL.
2. Port Authority, Gulfport; tidal wetland creation at Bayou Portage.
3. Naval Station at Mobile; nursery work for *S. alterniflora* for a 25-acre tidal marsh on Mobile Bay.
4. LPM, Inc.; tidal influenced fresh marsh restoration at Chickasaw Creek (Mobile River).
5. AmWest Savings; creation of a tidal influenced marsh in a drainage swale on Perdido Bay, FL.

California

Mr. James R. Bybee
National Marine Fisheries Service, SW Region
Habitat Conservation Division
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404
Work phone: **(707) 578-7513**
FAX: (707) 578-3435
Environmental Coordinator, Northern California.
Projects:
1. Habitat protection for fisheries and fisheries related populations.

Mr. Curtis Daehler
University of California, Davis
Department of Zoology
P.O. Box 247 Bodega Marine Lab
Bodega Bay, CA 95923
Work phone: **(707) 875-2022**
FAX: (707) 875-2089
Graduate Student in Zoology; wetland entomology.
Projects:
1. Location, spread, genetics and ecology of alien *Spartina alterniflora* in Pacific marshes, especially San Francisco and San Pablo bays.
2. Effects of native herbivores on this alien weed: seed set and spread as affected by herbivory.

Ms. Francesca C. Demgen
Woodward-Clyde Consultants
Environmental
2014 Indiana
Vallejo, CA 94590
Work phone: **(510) 874-1731**
FAX: (510) 874-3268
Wetland design and monitoring specialist; wastewater, freshwater, and estuarine.
Projects:
1. 1993. Research metal concentrations in a 145 acre man-made fresh and brackish water wetland which receives treated secondary effluent. Plant emergent vegetation to enhance nitrification.
2. 1990-93. Design, oversee construction, and monitor success of 19 acre freshwater marsh and creek restoration. Successful planting of riparian trees and shrubs, hydroseeding of emergents, and redistribution of site soils with seed stock.
3. 1990-93. Study uptake of copper, lead, and zinc in emergent vegetation and sediments in creek and marsh receiving urban run-off.

Mr. Russel E. DiFiori
5460 55th Street, #45
San Diego, CA 92115
Work phone: **(619) 594-6522**
421-6700 Ext.5286
FAX: -
Botanist. Wetlands ecology.
Projects:
1. Assisted in NMFS directory of people involved with restoration and creation of *Spartina spp.* marshes.

Mr. Brian Fink
Habitat Restoration
3234 "H" Ashford St.
San Diego, CA 92111
Work phone: **(619) 279-8769**
FAX: -
Owner/manager; horticulturist, wetlands.
Projects:
1. Wetland plants research: their growing requirements and pollination.
2. Contract growing of *Cordylanthus maritimus maritimus* and other sensitive plants.
3. Cultivation of *Spartina foliosa* studied for Caltrans.
4. Establishment of *Salicornia virginica* is being studied for the Pacific Estuarine Research Lab.

Mr. Robert S. Hoffman
National Marine Fisheries Service, SW Region
Habitat Conservation Div.
501 W. Ocean Blvd., Suite 4200
Long Beach, CA 90802-4213
Work phone: **(310) 980-4000**
FAX: (310) 980-4018

Fishery biologist; seagrass (*Zostera*) ecology.
Projects:
Evaluates habitat impacts of coastal waters, particularly as they relate to fisheries organisms. Involved with the long-term monitoring of a *Spartina* transplant project in San Diego Bay.

Dr. Michael Josselyn
San Francisco State University
Romberg Tiburon Center
P.O. Box 855
Tiburon, CA 94920
Work phone: **(415) 435-7126**
FAX: (415) 435-7120
Estuarine ecologist; wetland evaluations, design and restoration.
Projects:
1. Ecological consequences of introduced *Spartina alterniflora* on San Francisco Bay. 2. Control mechanisms to eradicate *S. alterniflora*; carbohydrate chemistry and means of control.

Mr. James R. Smith
Pacific Gas & Electric Co.
3400 Crow Canyon Rd.
San Ramon, CA 94583
Work phone: **(510) 866-5828**
FAX: (510) 866-5915
Biologist.
Projects:
1. Pittsburg (6/1/92); restoration of brackish tidal marshlands and native uplands in Suisun Bay, San Francisco, CA; about 1500 acres.
2. McArthur Swamp (1/2/92); restoration of permanent and seasonal freshwater wetlands in Fall River Valley, Shasta County, CA; about 1000 acres.

Mr. Douglas Spicher
Wetlands Research Associates, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901
Work phone: **(415) 454-8868**
FAX: (415) 454-0129
Projects:
Studied the distribution and taxonomy of *Spartina* (Gramineae) in northern California.

Dr. Donald R. Strong
University of California, Davis
Bodega Marine Laboratory
P.O. Box 247, Bodega Marine Lab
Bodega Bay, CA 94923
Work phone: **(707) 875-2022**
FAX: (707) 875-2089
Professor; Zoology, wetland entomology.
Projects:
1. Location, spread, genetics and ecology of alien *Spartina alterniflora* in Pacific marshes, especially San Francisco and San Pablo bays.
2. Effects of native herbivores on this alien weed: seed set and spread as affected by herbivory.

Dr. Sue L. Williams
San Diego State University
Pacific Estuarine Research Lab
Biology Department
San Diego, CA 92182-0057
Work phone: **(619) 594-6522**
FAX: (619) 594-5676
Professor/Researcher; wetland ecosystems.
Projects:
1. Research needs for restoring sustainable coastal ecosystems on the Pacific Coast.

Dr. Joy B. Zedler
San Diego State University
Pacific Estuarine Research Lab
Biology Department
San Diego, CA 92182-0057
Work phone: **(619) 594-5809**
FAX: (619) 594-5676
Director PERL, Professor/Researcher; wetland ecosystems.
Projects:
1. Assessed functional equivalency of marshes in the San Diego area; the Caltrans Connector Marsh compared with the Sweetwater River Wetlands Complex.
2. Canopy architecture of natural and planted cordgrass marshes: selecting habitat evaluation criteria.
3. Research needs for restoring sustainable coastal ecosystems on the Pacific Coast.

Mr. John J. Zentner
Zentner & Zentner
925 Ygnacio Valley Rd, Suite 250
Walnut Creek, CA 94596
Work phone: **(510) 947-6888**
FAX: (510) 947-1798
Principal; Wetland restorations
Projects:
1. Warm Springs I, Fremont, CA. Created salt marsh (muted tidal).
2. Mariner's Cove, Vallejo, CA. Created tidal salt marsh.

Connecticut

Mr. Peter F. Alexander, ASLA, APA
Sound Shore Institute, Site Design
6 West Putnam Ave.
Greenwich, CT 06830
Work phone: **(203) 869-6895**
FAX: (203) 869-2005
Landscape architect; GIS based CAD designer/planner
Projects:
1. Katama Bay replanting, 1974.
2. Metzger Marsh at Stony Creek, 1979.
3. Byram Mianus River restoration, 1989.
4. Grass Island, 1992.

Mr. Michael A. Aurelia
Town of Greenwich
Inland Wetlands and Watercourses Agency
101 Field Point Road
Greenwich, CT 06830
Work phone: **(203) 622-7736**
FAX: (203) 622-3767
Director, regulatory planning and management; freshwater and marine wetlands scientist.
Projects:
1. Initiated the Greenwich Point project on Long Island Sound, where 2 acres of intertidal beach was planted with *Spartina alterniflora* by E. Garbisch and Environmental Concern back in 1975. Continues to monitor the well being of this marsh.
2. Involved with developing regulatory policy regarding freshwater and marine wetlands, their use and their preservation.

Mr. Mark Heller
S.E. Minor and Co., Inc.
81 Holly Hill Lane
Greenwich, CT 06830
Work phone: **(203) 869-0136**
FAX: (203) 869-7869
Landscape architect; design of coastal and freshwater wetlands.
Projects:
1. Coscob Harbor; Greenwich, CT. Designed a coastal *Spartina alterniflora* marsh for mitigation. Project involved dredging an area of marsh where *Phragmites australis* had taken over, to restore tidal salt water flows.
2. Designed several other freshwater and salt water marsh creation/restoration projects.

Mr. Richard E. Kent
Environmental Design Associates, P.C.
P.O. Box 247, 78 Danbury Road
Wilton, CT 06897
Work phone: **(203) 762-8020**
FAX: (203) 762-7881
Director; wetlands and uplands landscape architect and designer.
Projects:
1. Mianus River Bridge project to create a *Spartina alterniflora* salt marsh; 0.3 acres of intertidal area were planted with *S. alterniflora*, good growth was obtained before the Canadian geese ate the tops off.
2. Conair Corp.- restored a 0.2 acre *Spartina alterniflora* marsh and wading pool from a *Phragmites* colony.
3. Mansfield Landing- restored a tidal wetland by excavating fill material to appropriate grades; allowing revegetation through natural seeding from nearby marshes.

Dr. William A. Niering
Connecticut College
Botany Department
270 Mohegan Ave.
New London, CT 06320
Work phone: **(203) 439-2143**
FAX: (203) 439-2700
Professor; botany, wetlands ecology.
Projects:
1. Connecticut shoreline marshes, evaluation of plant succession.
2. Plant community change with the restoration of tidal flows to a 20 hectare coastal marsh in Stonington, Connecticut. GIS analysis of the changes showed *Typha angustifolia* habitat was greatly reduced while *Spartina alterniflora* habitat was greatly increased. *Phragmites* habitat increased only slightly.

Mr. Matthew J. Popp
Environmental Design Associates, P.C.
P.O. Box 247, 78 Danbury Road
Wilton, CT 06897
Work phone: **(203) 762-8020**
FAX: (203) 762-7881
Environmental analyst and landscape architect; site development and environmental planning.
Projects:
1. Mianus River Bridge project to create a *Spartina alterniflora* salt marsh.
2. Conair Corp.- restored a *Spartina alterniflora* marsh and wading pool from a *Phragmites* colony.
3. Mansfield Landing- restored a tidal wetland by excavating fill material to appropriate grades; allowing revegetation through natural seeding from nearby marshes.

Mr. Erwin N. Potter
Erwin Potter and Associates, Environmental System Planning, Ltd.
P.O. Box 839
Sandy Hook, CT 06482
Work phone: **(203) 426-5936**
FAX: (203) 426-8917
Landscape architect. Coastal landscape design.

Mr. Ron Rozsa
Connecticut Dept. of Environmental Protection,
Office of the Long Island Sound Program
79 Elm Street
Hartford, CT 06106
Work phone: **(203) 566-7404**

Ms. Judith A. Slayback
Environmental Design Associates, P.C.
P.O. Box 247, 78 Danbury Road
Wilton, CT 06897
Work phone: **(203) 762-8020**
FAX: (203) 762-7881
Senior Environmental Analyst; environmental planning and restoration, freshwater and marine.
Projects:
1. Mianus River Bridge project to create a *Spartina alterniflora* salt marsh; 0.3 acres of intertidal area were planted with *S. alterniflora*, good growth was obtained before the Canadian geese ate the tops off.
2. Conair Corp.- restored a 0.2 acre *Spartina alterniflora* marsh and wading pool from a *Phragmites* colony.
3. Mansfield Landing- restored a tidal wetland by excavating fill material to appropriate grades; allowing revegetation through natural seeding from nearby marshes.

Mr. Thomas J. Steinke
Conservation Commission, Town of Fairfield
Independence Hall, 725 Old Post Road
Fairfield, CT 06430
Work phone: **(203) 256-3071**
FAX: (203) 256-3080
Conservation Director for the Town of Fairfield.
Projects:
1. Turney Creek: 1973, restored tidal flows using self-regulating tide gates (SRT) and open marsh water management (OMWM) to a 16-acre *Phragmites* marsh diked for flood control: elimination of marsh fires, mosquitoes, reduction of *Phragmites*; self-regulating tidegate.
2. Ash Creek: 1974, restored tidal flows (SRT and OMWM) to a 14-acre *Phragmites* marsh diked for flood control and marina development. Elimination of *Phragmites* and fires, reduction of mosquitoes, restoration of site.
3. Pine Creek: 1979, restored tidal flows (SRT, dikes, & OMWM) to a 130-acre marsh diked for flood control, roads, garbage dump, subdivisions, parks. Elimination of fires, *Phragmites*, odors, flooding, and mosquitoes.
4. Sasco Creek: 1987, restored tidal flows to 30+ acres of salt marsh isolated by causeway, highway and railroad bridges. Rebuilt larger highway bridge and cleaned out 140 years of debris from RR bridge. Greatly improved flushing eliminated fires, reduced mosquitoes and *Phragmites*.
5. Great Creek (Milford, Connecticut) 1990. Assisted State of Connecticut in Silver Sands State Park flood control and 150-acre marsh restoration effort with self-regulating tidegates. This solved the flooding, fire and mosquito problems, and restored shellfish, waterfowl, and fish habitats.

Dr. R. Scott Warren
Connecticut College
Botany Department
270 Mohegan Avenue
Box 5362, Conn. College
New London, CT 06320-4196
Work phone: **(203) 439-2132**
FAX: (203) 439-2519
Professor of Botany; tidal marsh ecology, physiological ecology; fish and invertebrate ecology in coastal wetlands.
Projects:
1. Restoration of an impounded tidal marsh at the Barn Island Wildlife Management Area - Stonington, CT. Effects of restored tidal flows to the area have been monitored for changes in flora and fauna. 1980 to present.
2. Marsh restoration through dredged material removal at Mumford Cove, Blaff Point Coastal Reserve - Groton, CT. Material was removed and surface was re-graded before dikes were breached to restore tidal exchange. Flora and fauna changes have been monitored since 1989.

Delaware

Mr. Bennett N. Anderson
Delaware Dept. of Natural Resources & Environmental Control, Division of Water Resources,
Watershed Assessment Branch
P.O. Box 1401, 89 Kings Highway
Dover, DE 19901
Work phone: **(302) 739-4590**
FAX: (302) 739-6140
Environmental Scientist. Estuarine Science; Oil Spill Response and Restoration
Projects:
Various EPA superfund and oil spill studies.

Mr. John H. Clark
Delaware Dept. of Natural Resources & Environmental Control, Division of Fish and Wildlife
P.O. Box 1401, 89 Kings Highway
Dover, DE 19903
Work phone: **(302) 739-4782**
FAX: (302) 739-6780
Environmental scientist.
Projects:
1. 1989-1994. Impoundment - estuarine interactions. Examining the effects of recently implemented water management plans enhancing tidal exchange for two high level tidal impoundments. Studying the in and out

movements and survival of fish associated with these impoundments.
2. 1993-1994. Comparing fish communities in the impoundments with those in adjacent natural marshes.

Dr. John L. Gallagher
University of Delaware
College of Marine Studies, Halophyte Biology Lab
700 Pilottown Rd.
Lewes, DE 19958
Work phone: **(302) 645-4366**
FAX: (302) 645-4028
Professor. Biochemistry of halophyte and marsh ecology.
Projects:
1. Phenotypic growth of *S. alterniflora.*
2. Monitoring restored salt marsh growth and function.

Dr. George W. Luther, III
University of Delaware
College of Marine Studies
Lewes, DE 19958
Work phone: **(302) 645-4208**
FAX: (302) 645-4007
Professor; Geochemistry of salt marshes; iron and sulfur chemistry.
Projects:
1. Geochemical studies of iron and sulfur in various salt marshes in N.J., in the Great Sippewissett, MA, and in the Great Marsh, DE.
2. Additional biogeochemical studies were done in Delaware Bay, Chesapeake Bay, Newark Bay, and inland bays of Delaware.
3. Mid-Atlantic Bight Coastal work from NY to Cape Hatteras involved geochemical analyses of iron and sulfur in sediments and the water column.

Dr. Evelyn Maurmeyer
Coastal and Estuarine Research
Marine Studies Complex
P.O. Box 674
Lewes, DE 19958
Work phone: **(302) 645-9610**
FAX: (302) 645-4006
Marine scientist; coastal geology, wetlands mitigation consulting.
Projects:
1. Delaware Bay shoreline erosion control near Lower Township, Cape May, NJ.
2. Wetlands delineations for coastal areas in Delaware.
3. Mitigation projects restoring coastal marshes using *Spartina alterniflora* and *S. patens.*

Mr. Richard McCorkle
U.S. Fish and Wildlife Service
Delaware Bay Estuary Project
RD #1 Box 146A
Smyrna, DE 19977
Work phone: **(302) 653-9152**
FAX: (302) 653-9421
Fish and wildlife biologist
Projects:
1. Partners for Wildlife Program. "Gordon's Pond" project enhanced the salt marsh habitat in part of a 350-acre track by renovating water control structures to allow more tidal exchange. This reduced the *Phragmites* area, and increased the *Spartina alterniflora* and *S. patens* area.
2. At the Eugene Mills site, saltmarsh was restored on privately owned land by excavating the area to remove *Phragmites* and to improve freshwater inflow as well as tidal saltwater inflow.

Dr. Kurt R. Phillipp
Wetlands Research Associates, Inc.
102 E Main Street, Suite 305
Newark, DE 19711-7319
Work phone: **(302) 738-7535**
FAX: (302) 738-9173
Wetlands ecologist; consultant.
Projects:
1. Historic review of tidal wetlands of the Delaware Estuary.
2. Assist the state of Delaware in developing a tidal wetlands characterization and preservation plan.
3. Evaluate impacts to tidal wetlands from hazardous waste sites; Delaware, and New Jersey, and restore tidal wetlands.
4. Develop freshwater wetlands to mitigate impacts of the Dulles Toll Road in northern Virginia, and of road work by the Delaware DOT in northern Delaware.

Dr. Denise M. Seliskar
University of Delaware
College of Marine Studies, Halophyte Biology Laboratory
700 Pilottown Road
Lewes, DE 19958
Work phone: **(302) 645-4366**
FAX: (302) 645-4028
Associate Research Scientist.
Projects:
1. Growth characteristics and tissue culture of *Spartina alterniflora* and *S. patens.*
2. Accelerating salt marsh functional development through plant genotype selection: intra-specific diversity from natural populations and tissue culture.
3. The effect of plant genotype on the food web in a created marsh.

Ms. Tracey Skrabal
Dept. of Natural Resources and Environmental Control, Division of Water Resources, Wetlands and Aquatic Protection Branch
89 Kings Highway, Box 1401
Dover, DE 19903
Work phone: **(302) 739-4691**

FAX: (302) 739-3491
Environmental Scientist.

Dr. William R. Witman
Delaware Dept. of Natural Resources & Environmental Control, Division of Fish and Wildlife
P.O. Box 1401, 89 Kings Highway
Dover, DE 19901
Work phone: **(302) 739-5297**
FAX: (302) 739-6157
Biologist. Waterfowl management and habitat conservation.
Projects:
1. Compiling, editing and publishing a waterfowl habitat management guide for the Atlantic Flyway.
2. Participant in the USFWS's Partners for Wildlife Program. Habitat advisor.
3. Technical representative to the North American Waterfowl Management Plan; including serving on the Policy Committee.

District of Columbia

Dr. Mary C. Barber
Science and Policy Associates
West Tower, Suite 400
1333 H Street NW
Washington, DC 20005
Work phone: **(202) 789-1201**
FAX: (202) 789-1206
Consultant-Senior Environmental Scientist.
Projects:
1. Competition between salt marsh plants, 1982 (thesis-not published)

Florida

Ms. Lisa Adams
Florida Dept. of Environmental Regulation,
NE District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, FL 32256-7577
Work phone: **(904) 448-4300**
FAX: -
Environmental Specialist / Compliance of Permits
Projects:
1. Ocean Highway and Port Authority, 1993. Mitigation project involving scrape-down and planting of *Spartina alterniflora.*
2. Dames Point project. Establishment of *S. alterniflora* marshes. Has filled in well.
3. Ameilia Island Yacht Club project. Restoration of marshes along a dredged material island and access road.
4. Anastasia Sanitary District pipeline project. Establish marsh over a sewer pipeline running through a marsh; is slowly filling in.

Mr. Carl Bates
Plants for Tomorrow, Inc.
16361 Norris Road
Loxahatchee, FL 33470-9430
Work phone: **(800) 448-2525**
FAX: (407) 790-1916
Grower/planter/designer; *Spartina* restorations.
Projects:
1. Grows and supplies *Spartina bakeri, S. alterniflora,* and *S. patens* for restoration of habitats. Has done many projects.
2. Currently installing a large *S. alterniflora* marsh at Morris Island near Charleston, SC.

Mr. Steve Beeman
Ecoshores, Inc.
Shoreline Associates
3881 South Nova Road
Port Orange, FL 32127
Work phone: **(904) 767-6232**
FAX: (904) 759-9895
Grower/supplier of *Spartina spp.*
Projects:
1. Grows and supplies *Spartina alterniflora, S. bakeri,* and *S. patens.*
2. Designs and builds coastal marshes and wetlands. Over 50 well established.
3. A varied wetlands habitat project at Admirals Cove near Jupiter, FL. Includes *S. alterniflora* marsh creation in the 60-acre site.

Mr. James William Beever, III
Florida Game & Freshwater Fish,
Office of Environmental Services
29200 Tuckers Grade
Punta Gorda, FL 33955
Work phone: **(813) 639-3515**
FAX: -
Biologist. Mangrove ecosystem and high marsh ecology.

Mr. W.Y. Bennett
Florida Aquatics of Avon Park, Inc.
3846 Menendez Drive
Pensacola, FL 32503
Work phone: **(904) 438-2585**
FAX: -
Grower/supplier of *Spartina alterniflora.*
Projects:
Suppliers of *Spartina alterniflora.*

Mr. David M. Biggar, Jr.
Liner Farm, Inc.
P.O. Box 701369
Saint Cloud, FL 34770-1369
Work phone: **(407) 892-1484**
FAX: (407) 892-3593
Grower/supplier of *Spartina spp.*
Projects:
Grow and supplies *Spartina alterniflora, S. patens,* and *S. bakeri* for restoration and other plantings.

Mr. William F. Bissett
The Natives
2929 J.B. Carter Road
Davenport, FL 33837
Work phone: **(813) 422-6664**
FAX: -
Landscape architect/builder.

Ms. Nancy Bissett
The Natives
2929 J.B. Carter Road
Davenport, FL 33837
Work phone: **(813) 422-6664**
FAX: -
Horticulturist.
Projects:
Grow *Spartina bakeri,* sand cordgrass.

Ms. Lucy Blair
Florida Dept. of Environmental Regulation,
S. District Office
2295 Victoria Ave., Suite 364
Fort Myers, FL 33901
Work phone: **(813) 332-6975**
FAX: -
Environmental Specialist
Projects:

Mr. Ronald E. Brockmeyer, Jr.
Harbor Branch Oceanographic Institution, Inc.
5600 U.S. 1, North
Ft. Pierce, FL 34946
Work phone: **(407) 465-2400 Ext. 668**
FAX: (407) 465-2446
Biologist. Fish biology and marsh ecology.

Mr. Otto M. Bundy
Nautilus Environmental Services, Inc.
P.O. Box 497
Parish, FL 34219
Work phone: **(800) 771-4114, (800) 422-6287 (in Florida)**
FAX: (813) 766-2410
Grower/Sales Rep.
Projects:
1. Consults in the planting of *Spartina spp.*
2. Grows *Spartina alterniflora, S. patens, S. bakeri* and *S. spartinae* for restoration projects.

Mr. Allen G. Burdett, Jr.
Florida Dept. of Environmental Regulation
Water Management
4520 Oak Fair Blvd.
Tampa, FL -
Work phone: **(813) 620-6121**
FAX: (813) 622-6123
Environmental Restoration Coordinator. Habitat restoration, creation and resource management.
Projects:
Involved with planning and managing of several projects of coastal restoration.

Mr. Douglas B. Carlson
Indian River Mosquito Control District
5655 South Gifford Road
P.O. Box 670
Vero Beach, FL 32961-0670
Work phone: **(407) 562-2393**
FAX: (407) 562-9619
Assistant Director. Mosquito control and salt marsh/wetland management.
Projects:
1. Developing, reviewing and implementing management plans for salt marshes (high marsh - *Batis, Salicornia, Distichlis* and White and black mangrove) along the Indian River lagoon for multipurpose use.
2. Chairman of the Subcommittee on Managed Marshes, a legislatively established interagency committee responsible for helping develop and review marsh management plans.

Mr. Kim Cash
Florida Shrub Growers
730 Myakka Road
Sarasota, FL 34240
Work phone: **(813) 322-1915**
FAX: -
Salesperson.
Projects:
Grows and supplies *Spartina alterniflora,* smooth cord grass, and *S. bakeri.*

Mr. Jerry Cordy
CZR, Inc.
4494 Southside Blvd., Suite 200
Jacksonville, FL 32216
Work phone: **(904) 642-8507**
FAX: (904) 642-8911
Biologist, consulting, wetland delineation, *Spartina alterniflora* marsh creation.

Projects: (more)
1. Dames Point Bridge, May 1987; created a 9 acre *S. alterniflora* marsh from upland area to offset impacts from highway bridge construction. Jacksonville, Florida.
2. River Crossing, July 1987; create a 1 acre *S. alterniflora* marsh of offset impacts from project entrance road. Jacksonville, Florida.

Mr. David W. Crewz
Florida Marine Research Institute (FMRI)
100 8th Avenue SE
St. Petersburg, FL 33701
Work phone: **(813) 896-8626**
FAX: -
Associate Research Scientist.
Projects:
1. Evaluated several created *Spartina alterniflora* marshes in Florida. Florida Sea Grant Publication Tech No. 60 (w/ R. "Robin" Lewis, III)
2. Coastal wetland evaluation work for FMRI.
3. Caryopsis production in natural and artificially created *Spartina alterniflora* Loisel marshes in Tampa Bay, FL.
4. Caryopsis production in *Spartina spartinae*.

Dr. William P. Davis
Environmental Protection Agency
Environmental Research Lab
1 Fabine Island Drive
Gulf Breeze, FL 32561-9201
Work phone: **(904) 0934-9312**
FAX: (904) 934-9201
Aquatic Research Ecologist. Mangrove ecology of mangroves, coral reefs, fish and invertebrates.
Projects:
1. Bear Bluffs in S.C. Transplanted to dikes from ponds.

Mr. David M. Drylie
Green Images
8100 Curry Ford Road
Orlando, FL 32822
Work phone: **(407) 568-1333**
FAX: (407) 568-2061
Sales representative.
Growers/suppliers of *Spartina alterniflora*, smooth cordgrass, *S. patens*, marsh hay cordgrass, and *S. bakeri*, sand cordgrass.

Ms. Shelley J. DuPuy
National Marine Fisheries Service
SEFC Panama City Lab, Habitat Conservation Division
3500 Delwood Beach Road
Panama City, FL 32408
Work phone: **(904) 234-5061**
FAX: (904) 235-3559 (but call 904-235-6591 to make sure it's operable)
Fishery Biologist. Habitat protection.
Projects:
Protection of estuarine and marine habitats for fisheries populations.

Mr. Mark O. Friedemann
Florida Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Work phone: **(904) 488-0130**
FAX: (904) 488-6579
Compliance Coordinator.
Projects:
1. In charge of vegetative monitoring of mitigation efforts.

Ms. Joyce Gann
Gann's Tropical Greenery and Natives
22140 SW 152nd Avenue
Goulds, FL 33170
Work phone: **(305) 248-5529**
FAX: -
Owner.
Growers/suppliers of *Spartina patens*, marsh hay cordgrass, and *S. bakeri*.

Mr. George D. Gann-Matzen
Ecohorizons
22601 SW 152nd Avenue
Goulds, FL 33170
Work phone: **(305) 989-5100**
FAX: -
President.
Projects:
1. Works with restoration of wetlands using *Spartina patens*, *S. bakeri*, *S. spartinae*.
2. Has a database of vascular plants of Florida.
3. Primarily works with rebuilding plant communities for State, private, and non-profit groups; works toward restoration of damaged communities rather than the creation of new habitats.

Mr. Joseph L. Gilio
Gone Native Nursery
Wetlands Management, Inc.
P.O. Box 1122
Jensen Beach, FL 34958
Work phone: **(407) 334-1643**
FAX: (407) 335-1644
Grower/supplier of *Spartina alterniflora*, *S. patens*, and *S. bakeri*; wetlands consultant and designer.
Projects:
1. Mobil Oil (Sailfish Point), planted *Spartina alterniflora* along 2 miles of shoreline.
2. Planted seven salt-tolerant species, including *Spartina alterniflora*, at the Breakers (1.4 ac).
3. Planted *Spartina alterniflora* at Jensen Beach Club and Island Shoppes.
4. Also planted *S. bakeri* at many littoral lake sites.

Dr. R. Grant Gilmore
Harbor Branch Oceanographic Institute
5600 Old Dixie Highway
Ft. Pierce, FL 34946
Work phone: **(407) 465-2400 ext. 203**
FAX: (407) 465-2446
Administration and Research Scientist. Fish ecology.

Ms. Caroline Hanes
Florida Dept. of Environmental Regulation
SE District Office
1900 S. Congress Ave., Suite A
West Palm Beach, FL 33406
Work phone: **(407) 433-2650**
FAX: -
Environmental Specialist

Dr. Brandt F. Henningsen
SW Florida Water Management District
Surface Water Improvement and Management Program
7601 Highway 301 N
Tampa, FL 33637
Work phone: **(813) 985-7481 ext. 2202**
FAX: (813) 985-7481 ext. 2069
Environmental Scientist. Estuarine wetland restoration and preservation.
Projects:
Monitoring 15 estuarine marshes, mostly *S. alterniflora*, and several were man-made.

Mr. Robert D. Karafel
Metropolitan Dade County
Environmental Resources Management
Metro-Dade Center
111 N.W. first Str., Suite 1310
Miami, FL 33128
Work phone: **???-375-3305**
FAX: -
Code enforcement officer - environmental

Dr. Edwin J. Kepner
National Marine Fisheries Service
SEFC Panama City Lab, Habitat Conservation Division
3500 Delwood Beach Rd.
Panama City, FL 32407
Work phone: **(904) 234-5061**
FAX: (904) 235-3559
Habitat Conservation Division Station Chief
Projects:
Coordinates habitat conservation efforts of NMFS in the NE Gulf of Mexico.

Dr. Thomas C. Kosier
Plants for Tomorrow, Inc.
16361 Norris Road
Loxahatchee, FL 33470
Work phone: **(407) 790-1422**
FAX: (407) 790-1916
Head of Research and Development; vice President.
Projects:
Growers/suppliers of *Spartina alterniflora*, smooth cordgrass; *S. bakeri*, sand cordgrass; and *S. patens*, marsh hay cordgrass. Most of material grown for in-house contracting projects. Has done some consulting work with Robin Lewis. Approximately 5% of consulting is *Spartina alterniflora*.

Dr. William L. Kruczynski
U.S. Environmental Protection Agency
Gulf Breeze Environmental Research Laboratory
Sabine Island
Gulf Breeze, FL 32561-3999
Work phone: **(904) 934-9279**
FAX: (904) 934-9201
Wetlands Expert.
Projects:
1. Planting of a spoil island using *Spartina alterniflora* at Apalachicola, FL, 1976.
2. Planting of a spoil island using *Spartina alterniflora* at Dickerson Bay, FL, 1975.

Mr. Mark Latch
Florida Dept. of Environmental Regulation,
Water Management
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
Work phone: **(904) 488-0130**
FAX: (904) 488-6579
Division Director. Aquatic ecology and wetland resource management.

Dr. Roy Robin Lewis, III
Lewis Environmental Services, Inc.
P.O. Box 20005
Tampa, FL 33622-0005
Work phone: **(813) 889-9684**
FAX: (813) 881-1586
Wetlands consultant; Ecological consulting, *Spartina* and mangrove marsh enhancement, restoration and creation.
Projects:
1. Developed methods for creation and restoration of *Spartina alterniflora* and mangrove marshes in Florida.
2. Designed and created *Spartina alterniflora* marshes as mitigation for impacts to estuarine marshes in Tampa Bay area for several companies.

Mr. Brightman Logan
Association of Florida Native Nurseries
P.O. Box 1045
San Antonio, FL 33576-1045
Work phone: **(904) 588-3687**
FAX: (904) 588-4552
Secretary of Association (1992).

Projects:
Produce the "Plant and Service Directory" annually; about $2.50; lists sources of *Spartina spp.* and companies that grow and install it.

Mr. Andreas Mager, Jr.
National Marine Fisheries Service, SE Region
Habitat Conservation Division
9721 Executive Center Drive, North
St. Petersburg, FL 33702
Work phone: **(813) 893-3503**
FAX: (813) 893-3111
Assistant Regional Director, SE Region. Resource management and Fisheries.
Projects:
1. Records and tracks water development projects (including proposed wetland mitigation) in the coastal area of the NMFS SE region using R-base (database system) on an IBM compatible PC.
2. Manages various NMFS habitat mitigation programs for the NMFS SE region (e.g. Coastal Wetland Planning, Protection and Restoration Act).

Mr. Frank Melton
Conservation Consultants, Inc. / Native Plants
P.O. Box 248
321 61st St. E. / Palm View Rd.
Palmetto, FL 34220
Work phone: **(813) 729-5015**
FAX: (813) 729-8384
Horticulturist; growing wetland plants, and restoring wetland areas.
Projects:
1. Grower and supplier of *Spartina alterniflora*, *S. bakeri*, and *S. patens*, as well as other wetland plants such as mangroves, *Rhizophora* and *Avicennia*.
2. Created marsh with *Spartina alterniflora* and red mangrove plants at Barefoot Beach near Bonito Springs.
3. Created 5 acres of marsh at Perico Harbor near Sarasota Bay. Site located at West Manatee Ave. and Bradenton.

Mr. Robert Patten
Coastal Dunes, Inc.
1605 Main St. #800
Sarasota, FL 34236
Work phone: **(813) 366-6538**
FAX: (813) 954-6036
President and Founder. Salt marsh and coastal habitat restoration.
Projects:
Various restoration projects.

Ms. Ann Redmond
Florida Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Work phone: **(904) 488-0130**
FAX: (904) 488-6579
Mitigation Coordinator.
Projects:

Ms. Pamela Reeder
Coastal Revegetation, Inc.
Shoreline Associates
5 Northeast 2nd Street
Delray Beach, FL 33444
Work phone: **(407) 495-0198**
FAX: (407) 278-7513
Growers/suppliers of *Spartina alterniflora*, *S. patens*, and *S. bakeri*.
Projects:
1. Munyon Island restoration project for the Palm Beach County Dept. of Environmental Resources Management.
2. Ash Landfill mitigation for Broward County Office of Integrated Waste Management.
3. Many other *Spartina* planting projects since 1981.

Mr. Michael E. Reily
The Wetlands Company, Inc.
7650 S. Tamiami Trail
Sarasota, FL 34231
Work phone: **(813) 921-6609**
FAX: (813) 921-7265
Grower/supplier of *Spartina alterniflora*, *S. patens*, and *S. bakeri*.

Mr. Rhodes Robinson
Environmental Services, INC.
8711 Perimeter Park Blvd., Suite 11
Jacksonville, FL 32216
Work phone: **(800) 443-3158**
FAX: (904) 645-9954
President. Specialties are Mitigation and Wetlands. Various, about 75 projects completed.

Mr. Douglas M. Scheidt
Harbor Branch Oceanographic Institution
5600 U.S. 1 North
Ft. Pierce, FL 34946
Work phone: **(407) 465-2400 Ext. 668**
FAX: (407) 465-2446
Fish Biologist. Fish ecology and marsh ecology.

Mr. Michael D. Schroer
Breedlove, Dennis & Associates, Inc.
4301 Metric Drive
Winter Park, FL 32792
Work phone: **(407) 677-1882**
FAX: (407) 657-7008
Associate Scientist II; environmental consulting.

Mr. Carl Terwilliger
Meadow Beauty Nursery
7210 Saddle Road
Lake Worth, FL 33463
Work phone: **(407) 969-9250**
FAX: -
Grower/supplier of *Spartina alterniflora* and *S. bakeri*; environmental consulting.
Projects:
1. Growing plants for restoration projects.
2. Bank stabilization of lake and water retention ponds at The Mounts Botanical Garden in West Palm Beach, FL, using *Spartina alterniflora*.

Mr. Thomas W. Tito
P.O. Box 14116
St. Petersburg, FL 33733
Work phone: **(813) 895-0446**
FAX: -
Supplier of *Spartina patens*, marsh hay cordgrass.
Projects:
1. Installation of *Spartina* and black mangroves at Big Bayou, Tampa Bay, 1979-1985.
2. North Clearwater Beach at St. Joseph's Sound, restoration/creation project to start soon, 1993.
3. Involved with designing and installing wetland and upland native plants for residential and commercial landscaping projects.

Dr. David A. Tomasko
Sarasota National Estuary Program
1550n Thompson Parkway
Sarasota, FL 34236
Work phone: **(813) 361-6133**
FAX: (813) 361-6165
Senior Scientist.
Projects:
1. City Island, Fall '91.
2. New College, Spring '92.
3. Leffis Key, Fall '91.

Mr. David J. Wesley
U.S. Fish and Wildlife Service, Jacksonville Field Office
3100 University Blvd., #120
Jacksonville, FL 32216
Work phone: **(904) 232-2580**
FAX: (904) 232-2404
Fish and wildlife biologist
Review of permit requests to alter coastal wetlands.

Dr. Quinton A. White
Jacksonville University
Department of Biology and Marine Science
2800 University North
Jacksonville, FL 32211
Work phone: **(904) 744-3950 ext. 6391**
FAX: (904) 744-0101
Professor of Biology and Marine Science, Chairman of the department.

Mr. Robert Whitman
9720 Princess Palm Ave., Suite 106
Tampa, FL 33619
Work phone: **(813) 626-5400**
FAX: (813) 623-1034
Co-president. Estuarine habitat restoration and fisheries.

Mr. Mike Zaffke
Indian Trails Native Nursery
10629 Anderson Lane
Lake Worth, FL 33467
Work phone: **(407) 641-9488**
FAX: -
Grower/supplier of wetland plants.
Projects:
Grows and supplies wetland plants for restoration or any landscaping projects.

Dr. Nancy C. Zyski
Mitigation Services, Inc.
8711 Perimeter Park Bld., Suite 11
Jacksonville, FL 32216
Work phone: **(800) 443-3158**
FAX: (904) 645-9954
President, Specialties-Wetlands Creation and Monitoring Wetlands
Projects:
1. Anastasia Sanitary District, St. Augustine, FL. Restoration and monitoring for a wastewater pipe installation project across several thousand feet of salt marsh associated with the Matanzas River. The area substrate was compacted during pipe installation, but *Spartina* is growing out into the area.
2. The Greens or Marsh Landing. A salt marsh creation and monitoring project, as mitigation for the development of an apartment complex. *Spartina alterniflora* is growing rapidly and filling in where expected.
3. Amelia Island Yacht Club. A *Spartina alterniflora* creation and monitoring project to mitigate for road widening impacts associated with upgrading access to a dredged material deposition site. Monitoring was required for a three year period. Again, *Spartina* is growing and filling in very well.

Georgia

Mr. Oscar Fultz
Chatham County Mosquito Control Commission
1321 Eisenhower Drive
Savannah, GA 31406
Work phone: **(912) 355-6320**
FAX: -

Director. Mosquito control.
Projects:
Some projects affect salt marsh ecology and alteration.

Mr. Jim Lanier
Aquascape Environmental Services, Inc.
2550 Sandy Plains Road, Suite 320-291
Marietta, GA 30066
Work phone: **(404) 578-0333**
FAX: -
President; wetlands consulting/ wetland restoration.
Projects:
Primary focus is in freshwater wetland restorations.

Mr. James F. Renner, P.G.
Kemron Environmental Services
2987 Clairmont Road, Suite 150
Atlanta, GA 30329
Work phone: **(404) 636-0928**
FAX: (404) 636-7162
Senior Geologist; consulting.

Louisiana

Mr. John E. Boatman
U.S. Soil Conservation Service
Plaquemines Soil and Water Conservation District Office
104 Hebert Boulevard
Belle Chase, LA 70037
Work phone: **(504) 394-7741**
FAX: -
District Conservationist.
Projects:
Assess the region for possible revegetation rehabilitation sites, and coordinate plantings of *Spartina alterniflora* for the CRD/DNR (Steyer's group).

Mr. Gerald W. Bodin
U.S. Fish and Wildlife Service
825 Kaliste Saloom Road
Brandywine Bldg. II, Suite 102
Lafayette, LA 70508
Work phone: **(318) 264-6630**
FAX: (318) 264-6663
Fish and Wildlife Biologist.
Projects:
Permitting and recommendations; most of these are implemented by individual refuge managers.

Mr. Allen Bolotte
U.S. Soil Conservation Service
New Orleans Field Office
P.O. Box 531
Boutte, LA 70039
Work phone: **(504) 758-2162**
FAX: -
District Conservationist.
Projects:
1. Resource conservation planning in St. John, St. Charles, St. Bernard, Jefferson, and Orleans Parishes in Louisiana.
2. Managing several shoreline planting projects in the field office area.

Mr. Wayne Bordelon
U.S. Soil Conservation Service
Thibodaux Field Office
204 East Bayou Road
Thibodaux, LA 70302
Work phone: **(504) 447-3871**
FAX: -
District Conservationist.
Projects:
1. 9-14 July 1992 plant 1600 1-gallon containers of *Spartina alterniflora*. 800 at Catahoula Bay and 800 at Temple Bay, Louisiana, east side of Bayou LaFourche. Use "*Nutria*-excluders" to prevent grazing of plants by *Nutria*.
2. 1991- planted 8000 single-stem plants at Bay Laurf, Louisiana, on the east side of Bayou LaFourche. Much of this was destroyed by *Nutria* grazing.

Mr. Edgar S. Bordes
New Orleans Mosquito Control Board
6601 Lake Shore Drive
New Orleans, LA 70126
Work phone: **(504) 241-2370**
FAX: (504) 244-4662
Director.
Projects:
Manipulation of dredged and levied areas in fresh water marsh for the most part, but some survey work in natural marsh.

Mr. Brad L. Broussard
U.S. Soil Conservation Service
New Iberia Field Office
300 Iberia Street
Suite 320 Courthouse Building
New Iberia, LA 70560
Work phone: **(318) 369-6623**
FAX: -
District Conservationist.
Projects:
Identify areas for possible revegetation and rehabilitation, and coordinate plantings of *Spartina alterniflora* for the Coastal Restoration Division of the Department of Natural Resources.

Mr. Daniel L. Broussard
Coastal Plants
2320 W. Alcide
Abbeville, LA 70510
Work phone: **(318) 893-2202**
FAX: (318) 898-3047
Owner/Manager.
Projects:
1. Experimenting with planting protocols to increase viability of plants propagated from the wild.
2. Sells single stem and gallon containers of *Spartina* (both wild varieties and cultivars from the PMC in Galliano, LA); supplier to state and federal contracts.

Dr. Donald R. Cahoon
U.S. Fish and Wildlife Service
National Wetlands Research Center
700 Cajun Dome Blvd.
Lafayette, LA 70506
Work phone: **(318) 266-8634**
FAX: (318) 266-8513
Research Scientist.
Projects:
1. Marsh resiliency with respect to sea level rise; measurement of accretion/subsidence with respect to elevation and sea level of natural marsh nationwide; is interested in expansion of project to incorporate transplanted marsh.

Mr. Richard H. Day
U.S. Fish and Wildlife Service
National Wetland Research Center
700 Cajun Dome Blvd.
Lafayette, LA 70506
Work phone: **(318) 266-8557**
FAX: (318) 266-8513
Geographer/Marine Ecologist.
Projects:
1. Global Climate Change- remote sensing (satellite) of marshes compared to near (aerial) spectral analysis of marsh - coordinated with ground structure of canopy, etc. Measure with spectral radiometer which integrates over 2 nm wavelengths to create a spectral signature. Satellite's 7 wide bands are then compared to 350+ bands of near sensing (between 400-1100 nm).

Dr. Kittie Sue Derstine
U.S. Soil Conservation Service
Golden Meadow Plant Materials Center
P.O. Box 2202
Galliano, LA 70354
Work phone: **(504) 475-5280**
FAX: (504) 475-6545
Research Coordinator/Botanist.
Projects:
1. Primary work focuses on collection of assemblies and cultivation of the four species of *Spartina* (*S. alterniflora*, *S. patens*, *S. spartinae*, and *S. cynosuroides*) in the range from Texas to Mississippi. These assemblies are evaluated in field trials for a range of parameters: above and below ground biomass, salt tolerance, growth rates, vigor, etc. From these, cultivars are selected to create germ plasm for release. Germ plasm is available free for propagation for vegetative increase. One cultivar is currently available for distribution: *Spartina alterniflora* Vermilion.
2. Dr. Derstine is currently creating a list of guidelines for nursery preparation to enhance eventual success of transplanted propagules.

Ms. Donna J. Devlin
4561 John Koonce Rd.
Lake Charles, LA 70611
Work phone: **(318) 475-5917**
FAX: -
Estuarine ecologist.
Projects:
1. 1989-present. Studies of a 10-year old mangrove creation site in SW Florida: plant survival, growth, reproduction, and succession. Some faunal data.
2. 1993-present. Studies on survival, growth, and succession in a Tampa Bay, FL created salt marsh. Secondary aspect evaluates the use of citizen volunteers to "monitor" such sites.
3. 1990-1993. Role of the litter-grazing snail, *Melampus coffeus* L. in the decomposition of mangrove leaf litter, and coupling export of detrital energy to the estuary.

Mr. William P. "Judge" Edwards
Vermilion Corporation
P.O. Box 27
Abbeville, LA 70511
Work phone: **(318) 893-0268**
FAX: -
Assistant Manager of Vermilion Corp. private hunting lands.
Projects:
1. Manages lands for hunting and fishing by Vermilion Corp.
2. Uses transplantation of *Spartina* along private canals which have accumulated silt to stabilize soil.

Mr. Gary Fine
U.S. Soil Conservation Service
Golden Meadow Plant Materials Center
P.O. Box 2202
Galliano, LA 70354
Work phone: **(504) 475-5280**
FAX: (504) 475-6545
Manager.
Projects: (more)

1. Manage the facility for the cultivation of the four species of *Spartina* (*S. alterniflora, S. patens, S. spartinae*, and *S. cynosuroides*) in the range from Texas to Mississippi. Germ plasm is available free for propagation for vegetative increase. One cultivar is currently available for distribution: *Spartina alterniflora* Vermilion.

Mr. Sherwood Gagliano
Coastal Environments, Inc.
1260 Main St.
Baton Rouge, LA 70802
Work phone: **(504) 383-7455**
FAX: (504) 383-7925
President.
Projects:
Primary focus is on monitoring water use (aquatic resource management and multi-use programs) effects on riverine and coastal areas through aerial and remote sensing

Mr. Thomas G. Hargis
University of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
300 E St. Mary Street
Lafayette, LA 70504-2451
Work phone: **(318) 231-5248**
FAX: (318) 231-5834
Graduate Researcher.
Projects:
Master's research at USL: Site characterization of marsh ecology at Lafitte (Barataria Parish) and Houma (Terrebonne Parish), Louisiana, measuring sulfide, nutrients, bulk density, and salinity.

Mr. Richard D. Hartman
National Marine Fisheries Service
Habitat Conservation Division
c/o Louisiana State University
Baton Rouge, LA 70803-7535
Work phone: **(504) 389-0508**
FAX: (504) 389-0506
Fisheries biologist, estuarine ecologist.
Projects:
1. Wetland creation/enhancement in fresh to saline tidal marshes. Survey, design, evaluate, and monitor restoration activities in Louisiana.
2. Protect fisheries habitats.

Dr. Suzanne "Sue" R. Hawes
U.S. Army Corps of Engineers, New Orleans District
Planning Division
P.O. Box 60267
New Orleans, LA 70160-0267
Work phone: **(504) 862-2518**
FAX: (504) 862-2572
Project Manager for the Environment.
Projects:
Helps plan marsh creation with dredged material projects for the New Orleans District Corps of Engineers.

Dr. William H. Herke
Louisiana State University
School of Forestry, Wildlife and Fisheries Sciences
Cooperative Fish and Wildlife Research Unit
Baton Rouge, LA 70803-6202
Work phone: **(504) 388-4180**
FAX: (504) 388-4227
Assistant leader Louisiana Cooperative Fish and Wildlife Research Unit.
Projects:
1. Monitoring fisheries interactions with natural and managed marshes-- typically not those that are transplanted.
2. Studies the life history of marine transients while using the marsh nursery, and the effects of water-control structures and levees on their use of the nursery.

Dr. H. Dickson Hoese
University of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
300 E St. Mary Street
Lafayette, LA 70504-2451
Work phone: **(318) 231-6494**
FAX: (318) 231-5834
Professor; ichthyology and wetlands biology.
Projects:
1. Primary work is on the ichthyology of natural marshes, weir structures and impoundments, 1990. Interim report: fisheries studies on the state wildlife refuge.
2. Comparison of effects of water control structures on fisheries in the Rockefeller Wildlife Refuge.
3. Cameron-Creole watershed management fisheries study.

Mr. John Hook
University of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
Lafayette, LA 70504-2451
Work phone: **(318) 383-1972**
FAX: (318) 231-5834
Graduate researcher.

Mr. Craig A. Johnson
U.S. Fish and Wildlife Service
National Wetlands Research Center
700 Cajun Dome Blvd.
Lafayette, LA 70506
Work phone: **(318) 266-8695**
FAX: (318) 266-8513
Geographer

Mrs. Peggy M. Jones
National Marine Fisheries Service
SEFC Habitat Conservation Division
c/o Louisiana State University
Baton Rouge, LA 70803-7535
Work phone: **(504) 389-0508**
FAX: (504) 389-0506
Fisheries biologist, estuarine ecologist.
Projects:
1. Planning and evaluation subcommittee member representing DOC for Coastal Planning, Protection, and Restoration Act, 1990-1993.
2. Review and evaluate proposed alterations to coastal wetlands to protect habitat supportive of marine fishery resources, 1980-present.

Dr. Mark A. Konikoff
Univ. of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
300 E St. Mary Street
Lafayette, LA 70504-2451
Work phone: **(318) 231-6754**
FAX: (318) 231-5834
Professor.
Projects:
1. Six year project on beneficial uses of dredge material deposition areas. Containment Area Aquaculture Program (CAAP) at WES.

Mr. Ronald J. Marcantel
U.S. Soil Conservation Service
Lake Charles Field Office
1400 Highway 14
Lake Charles, LA 70601
Work phone: **(318) 436-1483**
FAX: -
District Conservationist.
Projects:
Coordinates regional plantings for CRD through SCS in Crowley for the Lake Charles Area.

Mr. Michael Materne
U.S. Soil Conservation Service
Plant Materials Center
P.O. Box 16030, University Station
Baton Rouge, LA 70893
Work phone: **(504) 389-0335**
FAX: -
Plant Materials Specialist.
Projects:
1. Plant materials database for nurseries of wetland plants in Louisiana and the U.S.

Dr. Linda Glenboski Mathies
U.S. Army Corps of Engineers, New Orleans District, CELMN-OD-OR
P.O. Box 60267
New Orleans, LA 70115-0267
Work phone: **(504) 862-2318**
FAX: (504) 862-2317
Environmental Resources Specialist
Projects:
1. Mississippi River; Gulf Outlet, LA, marsh creation using dredged material.
2. Mississippi River; Baton Rouge to Gulf of Mexico, LA, marsh creation using dredged material (1974).
3. Houma Navigation Canal, LA, marsh restoration using dredged material (1990).
4. Calcasieu River and Pass, LA, marsh restoration using dredged material (1993).

Mr. Larry McNease
Rockefeller Wildlife Refuge
Louisiana Dept. of Wildlife and Fisheries
Rt. 1, Box 20-B
Grande Chenier, LA 70643
Work phone: **(318) 538-2276**
FAX: -
Biologist.
Projects:
Study of the vegetation associated with structural coastal marsh management.

Mr. Donald E. Menard
U.S. Soil Conservation Service
Abbeville Field Office
P.O. Box 68
Abbeville, LA 70511-0068
Work phone: **(318) 893-5664**
FAX: -
District Conservationist.
Projects:
Coordinates plantings for Louisiana's Department of Natural Resources, Coastal Restoration Division, in the Abbeville area.

Dr. Irving A. Mendelssohn
Louisiana State University
Wetland Biogeochemistry Institute, and Dept. of Oceanography and Coastal Sciences
Baton Rouge, LA 70803
Work phone: **(504) 388-6425**
FAX: (504) 388-6423
University researcher and professor.
Projects:
1. Research involves the understanding of causes underlying wetland loss in Louisiana. Primarily subsidence loss with factors influencing heterogeneous vigor deterioration using natural gradients and monitoring and experimental manipulations of factors (elevation, salinities, etc.)
2. Past studies on transplanting.

Mr. Jeff Murphy
Blacklake Marsh, Inc.
1200 Paris Street
Lake Charles, LA 70605
Work phone: **(318) 762-4242**
FAX: Call ahead to FAX.
Owner/president; fresh, brackish and salt marsh restorations, grows and installs.
Projects:
1. Grows and supplies *Spartina alterniflora*, smooth cordgrass, *S. patens*, marsh hay cordgrass, *Scirpus californicus* and many more species. Can provide single stems or multi-stem trade-gallons in large quantities.
2. Planted terraces in Sabine National Wildlife Refuge with *Spartina alterniflora* (Vermillion strain). Trade-gallons were used on 5-ft centers on one side; later, single stems were planted on the opposite side for comparison. Great success, and the sides are indistinguishable.
3. Wave barrier wooden fencing (2300 ft) was used at the Brannan Ditch project to break waves and flood water currents impacting the south side of the ICWW. Single stems of *Spartina alterniflora* were planted shoreward of the fence, and rapidly became established. They acted as a sediment trap in combination with the fence.

Mr. Michael D. Nichols
U.S. Soil Conservation Service
Water Resources Planning Staff
3737 Government Street
Alexandria, LA 71302
Work phone: **(318) 473-7688**
FAX: (318) 473-7771
Wildlife biologist.
Projects:
1. Planning of coastal restoration and protection projects connected with the Coastal Wetlands Planning, Protection and Restoration Act.
2. Watershed and river basin planning in the coastal zone of Louisiana.
3. Assisting district offices of the USDA Soil Conservation Service with revegetation efforts throughout coastal Louisiana.

Mr. Will Nidecker
Sabine National Wildlife Refuge
Hwy. 27 South
300 Main Street
Hackberry, LA 70645
Work phone: **(318) 762-3816**
FAX: (318) 762-3780
Refuge Manager.
Projects:
Spartina alterniflora transplanting and establishment within the refuge. Project A: Mitigation wave break levees in Units 6 & 7. Project B: terracing near Old Hog Bayou.

Mr. Kenneth E. Owen
University of New Orleans
Earl K. Long Library
New Orleans, LA 70146
Work phone: **(504) 286-7275**
FAX: (504) 286-7277
Librarian.
Projects:
Head of the Louisiana Collection, an extensive set of references about Louisiana, including many about wetlands.

Mr. W. Guthrie Perry
Louisiana Department of Wildlife and Fisheries
Rockefeller Wildlife Refuge
Rt. 1, Box 20-B
Grande Chenier, LA 70643
Work phone: **(318) 538-2276**
FAX: -
Biologist.
Projects:
Study of the aquatic organisms associated with structural coastal marsh management.

Dr. S. R. Pezeshki
Louisiana State University
Center for Coastal Energy and Environmental Resources
Wetland Biogeochemistry Institute
Baton Rouge, LA 70803-7511
Work phone: **(504) 388-6430**
FAX: (504) 388-6423
Associate Professor of Wetland Resources; plant ecophysiologist. more...
Projects:
1. Physiological responses of wetland plants to flood and salt stresses: soil - plant interactions. Work with R.D. De Laune and W.H. Patrick, 1993.
2. Wetland soil development. Work with R.D. De Laune and W.H. Patrick, 1988-1993.
3. Field studies of beach cones as coastal erosion reversal devices for areas with significant oil and gas activities. Work with R.D. De Laune, 1992-1994.

Dr. Edward Proffitt
Louisiana Environmental Research Center
McNeese State University
P.O. Box 90655
Lake Charles, LA 70609-0655
Work phone: **(318) 475-5917**
FAX: (318) 475-5122
Director of the Research Center; Associate Professor; mangrove and salt marsh ecology
Projects:
1. 1988-present. Studies of a 10-year old mangrove creation site in SW Florida: plant survival, growth, reproduction, and succession. Some faunal data.(more)

2. 1993-present. Studies on survival, growth, and succession in a Tampa Bay, FL created salt marsh. Secondary aspect evaluates the use of citizen volunteers to "monitor" such sites.
3. 1990-1993. Role of the litter-grazing snail, *Melampus coffeus* L. in the decomposition of mangrove leaf litter, and coupling export of detrital energy to the estuary.

Ms. Patricia S. Rafferty
University of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
300 E St. Mary Street
Lafayette, LA 70504-2451
Work phone: **(318) 231-5248**
FAX: (318) 231-5834
Graduate Researcher.
Projects:
1. Doctoral research focuses on interaction between rhizosphere and sediment as it affects nitrogen cycling (denitrification rates) at Otter Bayou (with USFWS) and Fourleague Bay (Sea Grant project), 1993.

Dr. Elijah W. Ramsey
U.S. Fish and Wildlife Service
National Wetland Research Center
700 Cajun Dome Blvd.
Lafayette, LA 70506
Work phone: **(318) 266-8575**
FAX: (318) 266-8513
Oceanographer.

Mr. John E. Reddoch
U.S. Army Corps of Engineers, New Orleans District
Operations & Readiness Div., Regulatory Functions Br.
P.O. Box 60267
New Orleans, LA 70160-0267
Work phone: **(504) 862-2277**
FAX: (504) 862-2289
Environmental Resource Specialist.

Mr. Bryan J. Reed
The Wetlands Foundation
3841 Veterans Blvd., Suite 201
Metairie, LA 70002
Work phone: **(504) 888-9944**
FAX: (504) 888-9976
Executive Director.

Dr. Denise Janet Reed
Louisiana Universities Marine Consortium
Marine Research and Education Center
Chauvin, LA 70344
Work phone: **(504) 851-2800**
FAX: (504) 851-2874
Associate Professor; Salt marshes, tidal flows and sediment dynamics.
Projects:
1. Tidal flows in salt marshes, and their roles in sediment transport and accretion in the marshes.
2. Understanding interactions between biological communities and depositional processes in coastal marshes.

Mr. Rickey N. Reubsamen
National Marine Fisheries Service
Habitat Conservation Division
c/o Louisiana State University
Baton Rouge, LA 70803-7535
Work phone: **(504) 389-0508**
FAX: (504) 389-0506
Branch Chief; Fisheries biology and estuarine ecology.
Projects:
1. Wetland creation/enhancement in fresh to saline tidal marshes. Five projects designed and funded for construction in coastal Louisiana under the Coastal Wetland Planning, Protection, and Restoration Act. 1990-1993.
2. Seagrass meadow creation (*Halodule*) in Laguna Madre, Texas, 1985.
3. Wetland creation (*S. alterniflora*) at Lake Como, Galveston, Texas, 1984.
4. Estuarine brackish marsh enhancement for the Nueces River delta, Texas, 1983.

Mr. Mark Schleifstein
The Times-Picayune
3800 Howard Ave.
New Orleans, LA 70140-1097
Work phone: **(504) 826-3327**
FAX: (504) 826-3007
Reporter.
Reports on environmental issues and projects such as marsh loss and marsh restoration in Louisiana and the north-central coast of the Gulf of Mexico.

Mr. Chris Simon
Louisiana Department of Natural Resources
Coastal Restoration Division
200 Lafayette Street
Baton Rouge, LA 70804-9396
Work phone: **(504) 342-7308**
FAX: (504) 342-9417
Geoscience Specialist.
Projects:
1. Sabine terraces for *Spartina alterniflora* marsh creation and wave reduction.
2. Falgout canal/levee grass planting.

Ms. Ruth Spell
U.S. Fish and Wildlife Service
National Wetland Research Center
700 Cajun Dome Blvd.
Lafayette, LA 70506

Work phone: **(318) 266-8571**
FAX: (318) 266-8513
Geographer.

Mr. Gregory Dean Steyer
Louisiana Department of Natural Resources
Coastal Restoration Division
200 Lafayette St., P.O. Box 94396
Baton Rouge, LA 70804-9417
Work phone: **(504) 342-9435**
FAX: (504) 342-9417
Biological Program Manager.
Projects:
Directs the CRD, and initiates many coastal projects to protect and restore wetlands--both fresh and salt water. Many projects are listed in "Recommended three year coastal wetland vegetation program".

Ms. Faye A. Talbot
U.S. Soil Conservation Service
Crowley Area Office
P.O. Drawer 387
Crowley, LA 70527
Work phone: **(318) 783-1257**
FAX: (318) 783-5608
Resource Conservationist.
Projects:
1. Collects reports from state soil and water conservation districts, and compiles information for the Coastal Restoration Division of the Dept. Natural Resources as a yearly report.
2. Functions as a liaison between CRD and SCS on vegetation projects.
3. Serves as water resources staff leader at the Area III 3 level (coastal marshes) for the Ponchartain, Breton Sound, Barataria, Mississippi River, Terrebonne and Tech/Vermilion Basin. Responsible for development of plans and projects for the SCS in these basins.

Mr. Michael D. Tullos
U.S. Soil Conservation Service
Houma Field Office
Box 1266
Houma, LA 10361
Work phone: **(504) 872-5609**
FAX: -
District Conservationist.
Projects:
1. Provide technical assistance for Terrebonne Parish in identifying potential rehabilitation projects.

Dr. Robert R. Twilley
University of Southwestern Louisiana
Department of Biology
P.O. Box 42451 USL
300 E St. Mary Street
Lafayette, LA 70504-2451
Work phone: **(318) 231-6146**
FAX: (318) 231-5834
Professor.
Projects:
1992. An ecological analysis of marsh management in coastal Louisiana: Processes related to the fertility of marsh ecosystems.

Maine

Mr. Stewart I. Fefer
U.S. Fish and Wildlife Service
Gulf of Maine Coastal & Estuary Project
312 Canco Road
Portland, ME 04103
Work phone: **(207) 828-1080**
FAX: (207) 828-4001
Restoration of tidal flow to salt marshes in northern New England.
Projects:
1. Awcomin Marsh at Rye, NH, 1993. 20 acres of *Spartina* marsh were restored by excavation of channels for inundation.
2. Marsh at Stratham, NH, 1993-94. 12 acres of marsh were restored through placement of large culverts to enhance tidal flow.
3. Lewis Lake at Winthrop, MA, 1993-94. 8 acres enhanced by restored tidal flows.
4. Hatches Harbor site at Provincetown, MA. 200 acres of salt marsh restored through placement of culverts to allow tidal inundations.

Maryland

Ms. Candy C. Bartoldus
Environmental Concern, Inc.
P.O. Box P, 210 West Chew Ave
St. Michaels, MD 21663
Work phone: **(410) 745-9620**
FAX: (410) 745-3517
Senior Associate. Wetland evaluation procedures.
Projects:
Senior author of Evaluation for Planned Wetlands.

Mr. Robert Blama
U.S. Army Corps of Engineers, Baltimore District
Operations Division, Navigation Branch
P.O. Box 1715
Baltimore, MD 21203 (more)
Work phone: **(410) 962-3663**
FAX: (410) 962-6039

Ecologist/Project Manager. Habitat creation and beneficial use of dredged material. (more)
Projects:
1. Barren Island, MD. 1987-88. About 10 acres of *Spartina alterniflora* and *S. patens* marsh were created.
2. Eastern Neck Wildlife Refuge. 1993. 5 acres of *Spartina alterniflora* and *S. patens* marsh were created.

Dr. Donald F. Boesch
University of Maryland, Horn Point Lab
Center for Estuarine and Environmental Study
P.O. Box 775
Cambridge, MD 21613
Work phone: **(301) 228-9250**
FAX: -
Director; biology-ecology, wetlands, community ecosystems, resource management
Projects:
Can direct you to the source.

Ms. Dawn Renee Briggs
Environmental Concern, Inc.
P.O. Box P, 210 West Chew Ave
St. Michaels, MD 21663
Work phone: **(410) 745-9620**
FAX: (410) 745-3517
Associate Wetland Designer. Landscape architecture and ecological design.
Projects:
Research and design of various wetland types, including shoreline restorations with *Spartina alterniflora* and *S. patens*.

Mr. Carlo R. Brunori
Maryland Department of Natural Resources
Forest, Park and Wildlife Service
Tawes State Office Building, E-1
580 Taylor Avenue
Annapolis, MD 21401
Work phone: **(410) 974-3195**
FAX: Chief, Technical Services; Water quality assessment, and wetland planning and design for preservation of wildlife habitat.
Projects:
1. Involved with water quality assessments and management in South, Gunpowder, Lower Susquehanna and Bush rivers in Maryland.
2. Develops water quality plans for river basins, including wetland creation or modification for wildlife enhancement.
3. Interagency coordination for water quality issues.

Dr. Leon M. Cammen
NOAA/National Sea Grant College Program
Marine Ecology
R/OR1, 133 East-West Highway
Silver Spring, MD 20910
Work phone: **(301) 427-2435**
FAX: (301) 427-2799
Associate Program Director for Environmental Studies.
Projects:
Program manager for Coastal Ocean Program's Estuarine Habitat Program.

Ms. Mary Ellen Dore
Maryland Department of Natural Resources
580 Taylor Ave. B-3
Annapolis, MD 21401
Work phone: **(410) 974-2784**
FAX: (410) 974-2833
Manager, Chesapeake Natural Estuarine Research Reserve. Resource management, environmental policy, and ecology.

Mr. H. Glenn Earhart
U.S. Army Corps of Engineers, Baltimore District
P.O. Box 1715
Baltimore, MD 21203
Work phone: **(302) 962-3369**
FAX: (301) 962-3966
Environmental Program Manager/Biologist. Habitat development and hazardous/toxic waste management.
Projects:
N/A

Dr. R. Michael Erwin
U.S. Fish and Wildlife Service
Patuxent Wildlife Research Center
Laurel, MD 20708
Work phone: **301-498-0380**
FAX: 301-498-0438
Projects:
1. Chesapeake Bay, Delaware Bay, Eastern Shore of VA, Southern New Jersey, and Outer Banks, NC.

Mr. Thomas Filip
U.S. Army Corps of Engineers
Baltimore District - Regulatory Branch
P.O. Box 1715
Baltimore, MD 21203-1715
Work phone: **(410) 962-3670**
FAX: (410) 962-6024
Asst. Chief of Regulatory; wetlands chemist
Projects:
1. 119th Street march creation in Ocean City, MD.
2. Isle of Wright Bay *Spartina alterniflora* marsh establishment; very successful.
3. Other more recent plantings in the area.

Dr. Edgar W. Garbisch
Environmental Concern Inc.
P.O. Box P
St. Michaels, MD 21663 (more)
Work phone: **(410) 745-9620**
FAX: (410) 745-3517

President; environmental consulting; marsh restoration and creation. (more)
Projects:
1. *Spartina alterniflora* and *S. patens* have been used in 203 shore restoration and marsh construction for bank erosion control projects during the period of 1972-1992.
2. *Spartina alterniflora* and *S. patens* have been used in 13 beneficial uses of dredged material projects, 15 regulatory restoration projects, 2 voluntary restoration projects, 63 wetland mitigation projects, and 10 experimental wetland construction projects from 1972-1992.
3. Designed and created or restored 43 freshwater marshes of various types.

Mr. Tim Goodger
National Marine Fisheries Service
Habitat and Protected Resources Div., NE Region
Oxford Field Office
904 South Morris Street
Oxford, MD 21654
Work phone: **(410) 226-5771**
FAX: (410) 226-5417
Assistant coordinator; resource management and estuarine ecology.
Projects:
Habitat protection; coastal marshes for fisheries and fisheries related populations.

Dr. Michael S. Kearney
University of Maryland
Dept. of Geography
College Park, MD 20742
Work phone: **(301) 405-4057**
FAX: (301) 314-9299
Associate Professor.
Projects:
1. Chesapeake Bay, Delaware Bay, Mississippi Delta, VA Barrier Islands, Assategue Island, Fire Island, NY

Mr. Christopher P. Kilgore, ASLA
Environmental Concern, Inc.
P.O. Box P, 210 West Chew Ave
St. Michaels, MD 21663
Work phone: **(410) 745-9620**
FAX: (410) 745-3517
Senior Associate; Wetland evaluation, design and delineation.
Projects:
1. Assisted in the design and construction of 15 projects using *Spartina alterniflora* for shoreline protection primarily in the Chesapeake Bay area.
2. Assisted with the design and construction of a tidal estuarine marsh using *Spartina alterniflora*.
3. Assisted with the design and construction of four freshwater marsh projects.

Dr. Mark L. Kraus
Environmental Concern, Inc.
P.O. Box P, 210 West Chew Ave
St. Michaels, MD 21663
Work phone: **(410) 745-9620**
FAX: (410) 745-3517
Senior Associate, Director of Education. Wetland evaluation, design and delineation.
Projects:
1. Designed and constructed 11 tidal estuarine marshes where *Spartina alterniflora* was the major species planted. Creation and restoration projects were primarily in the Chesapeake Bay area.
2. Assisted with the design and construction of 11 freshwater marsh projects.

Mr. Donald Robert MacLean
University of Maryland, College Park Campus, Natural Resources Management and Water Resources Engineering.
9023 Queen Maria Court
Columbia, MD 21045
Work phone: **(410) 997-3513**
FAX: -
Consulting Ecologist and Teaching Assistant. Wetland mitigation, restoration, botany and delineation.
Projects:
1. C&F Realty Marsh Restoration Project, May '91.
2. Amerada Hess Wetland Mitigation Project, Jan '91.
3. Fort Meade Wetland Mitigation Project, Aug '90.
4. Charles County Wetland Mitigation Project, Aug '90.

Ms. Tamara L. McCandless
U.S. Fish and Wildlife Service
Chesapeake Bay Program,
Living Resources Branch
180 Admiral Cochrane Dr., Suite 535
Annapolis, MD 21401
Work phone: **(410) 224-2732**
FAX: (410) 224-2781
Habitat restoration and protection specialist.
Projects:
1. Develop wetland/riparian and stream restoration program.
2. 1993. Marsh protection and restoration project using brush-fencing technique at Blackwater National Wildlife Refuge.

Dr. Robert W. Paul
St. Mary's College of Maryland
Division of Natural Science and Math
St. Mary's City, MD 20686
Work phone: **(301) 862-0362**
FAX: (301) 862-0999
Professor; ecology of salt marshes.
Projects:

1. Ecological base line studies on Chesapeake Bay saltmarshes, gastropods. (more)
2. Consulting for the Navy on environmental contamination issues; hazardous waste.

Mr. Marc Seelinger
Environmental Concern, Inc.
P.O. Box P, 210 West Chew Ave
St. Michaels, MD 21663
Work phone: **(410) 745-9620**
FAX: (410) 745-3517
Senior Associate; Wetland design and construction.
Projects:
1. Assisted in the design and construction of a tidal estuarine marsh where *Spartina alterniflora* was the major species planted.
2. Assisted with the design and construction of 5 freshwater marsh projects.

Dr. J. Court Stevenson
University of Maryland, Horn Point Laboratory
Center for Estuarine and Environmental Study
Cambridge, MD 21613-0775
Work phone: **(301) 228-8200**
FAX: (301) 476-5490
Professor, researcher; wetlands.

Mr. Charles Utermohle
Whitman Requardt
2315 St. Paul Street
Baltimore, MD 21218
Work phone: **(410) 235-3450 Ext.206**
FAX: (410) 243-5716

Massachusetts

Mr. Richard Albano
Sanford Ecological Services
30 Turnpike Road
Southborough, MA 01772
Work phone: **(508) 460-9900**
FAX: (508) 481-2009
Wetlands ecologist.
Projects:
Consulting for wetlands mitigation.

Mr. Thomas E. Bigford
National Marine Fisheries Service, NE Region,
Habitat and Protected Resources Div.
One Blackburn Drive
Gloucester, MA 01930-2298
Work phone: **(508) 281-9300**
FAX: (508) 281-9301
Division Chief.
Habitat protection for fisheries populations.

Dr. Burton Bryan
The BSC Group
425 Summer Street
Boston, MA 02210
Work phone: **(617) 345-4025**
FAX: (617) 345-8008
Senior Biologist; wetlands and water quality impacts
Projects:
Central Artery/Tunnel project in Boston harbor, planning for marsh restoration to compensate for project impacts.

Dr. Lars H. Carlson
Sverdrup Corporation
2 Center Plaza
Boston, MA 02108-1906
Work phone: **(617) 742-8060**
FAX: (617) 742-8830
Environmental Scientist; consulting on wetlands and environmental permitting.
Projects:
1. Restoration design of a *Spartina* marsh for mitigation of impacts resulting from construction of a new MBTA railroad bridge between Boston and Quincy, MA.

Dr. Jerome B. Carr
Carr Research Laboratory, Inc.
17 Waban Street
Wellesley, MA 02181
Work phone: **(508) 651-7027**
FAX: (508) 651-7028
Environmental research and consulting; hydrology and wetland ecology.
Projects:
Freshwater wetlands analyzed, and restored.

Ms. Cheryl C. Deshaies
Lelito Environmental Consultants
100 Corporate Place, Suite 103
Peabody, MA 01960
Work phone: **(508) 535-7861**
FAX: (508) 535-0073
Restoration biologist; wildlife management, freshwater and coastal wetland restorations.
Projects:
1. *Phragmites* eradication and *Spartina* restoration at Post Island Marsh in Quincy, Massachusetts.
2. Restoration of a filled *Spartina* marsh on Sea Pit Road, Falmouth, MA.
3. Sand dune restoration at Sippewissett Hills in Falmouth, MA: replacement of sand by grain size and color, and revegetation with dune grass.
4. Analysis of the direct and indirect effects of a rod and gun club on the plants and the wildlife in a salt marsh in Martha's Vineyard.

Mr. Daniel L. Falcone
OHM Corporation
88-C Elm Street
Hopkinton, MA 01748
Work phone: **(508) 435-9561**
FAX: -
Dredging.
Projects:

Mr. George Gavutis
U.S. Fish and Wildlife Service - Northeast, Region 5
Refuges and Wildlife Program
300 Westgate Center Drive
Hadley, MA 01034-9589
Work phone: **(413) 253-8574**
FAX: -

Ms. Wendi Goldsmith
Bestmann Green Systems, Inc.
7 Mall Street
Salem, MA 01970
Work phone: **(508) 741-1166**
FAX: (508)741-3780
Bioengineer; erosion and water quality control through restoration of vegetation.
Projects:
1. Nursery facility supplies plants grown in biodegradable coconut fiber matrix for erosion protection. Various fresh, brackish, and salt species are available as single-and multi-stemmed plugs as well as sods which tolerate considerable wave impact and other stress.
2. Restoration of a *Spartina alterniflora* marsh that was impacted by barge wakes at Fresh Kills landfill, New York.
3. Restoration and enhancement of high and low marshes on tidal systems and bay frontage on private lots, public lands, and demonstration projects from New York to Maine.

Dr. William B. Kerfoot
KV Associates, Inc.
281 Main Street
Falmouth, MA 02540
Work phone: **(508) 540-0561**
FAX: (508) 457-9053
President; Biology, hydrology and geohydrology.
Projects:
1. Reverse layering, an alternative approach to dredging for Lake Ana coastal restoration, 1988-1991. Demonstration project.
2. Red Lily Pond diagnostic and feasibility study.
3. Subsidence dredging at Green Pond, 1991-present.

Mr. Paul R. Lelito
Lelito Environmental Consultants
P.O. Box 1525
North Falmouth, MA 02556
Work phone: **(508) 564-5606**
FAX: (508) 563-7669
President; biologist, consulting, wetlands restoration.
Projects:
1. *Phragmites* eradication and *Spartina* restoration at Post Island Marsh in Quincy, Massachusetts.
2. Restoration of a filled *Spartina* marsh on Sea Pit Road, Falmouth, MA.
3. Sand dune restoration at Sippewissett Hills in Falmouth, MA: replacement of sand by grain size and color, and revegetation with dune grass.
4. Analysis of the direct and indirect effects of a rod and gun club on the plants and the wildlife in a salt marsh in Martha's Vineyard.

Mr. Lee D. Lyman
Lycott Environmental Research, Inc.
600 Charlton Street
Southbridge, MA 01550
Work phone: **(508) 765-0101, 1-800-462-8211**
FAX: (508) 765-1352
President; environmental assessments and restorations.
Projects:
1. Musquashicut Lake; Scituate, MA
2. Environmental analysis of several coastal ponds of Rhode Island.

Mr. Christopher Mantzaris
National Marine Fisheries Service, NE Region
Habitat and Protected Resources Div.
One Blackburn Drive
Gloucester, MA 01930-2298
Work phone: **(508) 281-9346**
FAX: (508) 281-9301
Habitat Program coordinator for the NE; Wetlands ecology and fisheries biology.
Projects:
1. Tracks various coastal habitat restoration/creation projects in the NE.
2. Evaluates permits to protect critical marine and estuarine habitat for fisheries organisms.
3. Placement of shell in Long Island Sound to restore oyster beds.
4. Restoration of 13+ acres of combined habitats (mudflats with tidal creeks, *Spartina alterniflora* marsh, and salt pans) in Revere, MA.

Mr. Michael J. Marcus
New England Environmental, Inc.
800 Main Street
Amherst, MA 01002
Work phone: **(413) 256-0202**
FAX: (413) 256-1092
Senior Biologist; consulting.

Mr. David Martin
Wm. M. Warwick and Associates Inc.
P.O. Box 801, 213 Old Main Road
North Falmouth, MA 02556
Work phone: **(508) 563-7777**
FAX: -
Civil Engineer; coastal and wetland issues.
Projects:
1. Inspection of docks and other coastal structures for meeting engineering codes for permits.
2. Bank stabilization projects. Rip-rap was used to stabilize the bank, and the shore-side was filled to desired height and planted with *Spartina* for biological stabilization of the shore. This was done for three adjacent properties in West Falmouth, Massachusetts. The adjacent marsh, used for access, was also planted to restore it where it had been damaged.

Mr. Dan McHugh
Great Meadow Farms
Sawyer Island
Rowley, MA 01969
Work phone: -
FAX: -
Projects:
1. Creation of a 20-acre *Spartina alterniflora* salt marsh from a dredge material deposition area - the Awconim Marsh Restoration project in New Hampshire.

Dr. Norton H. Nickerson
Tufts University
Department of Biology
Medford, MA 02155
Work phone: **(617) 627-3544**
FAX: (617)627-3805
Professor; research and teaching about inland and coastal wetlands.
Projects:
1. Creation of salt marsh along the Neponset River near the new railroad bridge; between Boston and Quincy, MA.
2. Study of sulfide relationships to habitat in *Spartina alterniflora* in Cape Cod marshes.
3. Study of habitat differences in sulfide concentrations on habitat and successional patterns of the red mangrove (*Rhizophora mangle*) and the black mangrove (*Avicennia germinans*) in the Florida Everglades, the Bahamas, and Belize.

Dr. Douglas S. Sparrow
Louis Berger & Associates, Inc.
303 Bear Hill Road
Waltham, MA 02154
Work phone: **(617) 890-8999**
FAX: (617) 890-7959
Manager; wetlands specialist.
Projects:
1. Tidal marsh enhancement in Stonington, CT, 1992-present. Feasibility of expanding *Spartina* growth is a sub component in a tidal cove restoration project.

Ms. Susan Taylor
OHM Corporation
88-C Elm Street
Hopkinton, MA 01748
Work phone: **(508) 435-9561**
FAX: -
Dredging.

Dr. John M. Teal
Woods Hole Oceanographic Institute
Biology
Water Street
Woods Hole, MA 02543
Work phone: **(508) 457-2090**
FAX: (508) 457-2169
Researcher; biologist and ecologist.
Projects:
1. Long-term ecological studies of the Great Sippewissett Salt Marsh (GSSM), Buzzards Bay, Massachusetts.
2. Nitrogen cycling in GSSM.
3. Long-term pollution effects in GSSM.
4. Natural and artificial marsh restoration consulting in Los Angeles delta (CA), Delaware Bay (NJ), Copper River delta (AK), and Indian River (FL).

Mississippi

Mr. Hollis H. Allen
U.S. Army Corps of Engineers
Waterways Experiment Station
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Work phone: **(601) 634-3845**
FAX: (601) 634-4016
Wetlands engineer; restores wetlands and uses bio-engineering to control erosion.
Projects:
Numerous freshwater, brackish and salt water marsh creation and bank stabilization projects.

Mr. Ellis J. Clairain, Jr.
U.S. Army Corps of Engineers
Waterways Experiment Station, Wetlands Ecology Group
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Work phone: **(601) 634-3774**
FAX: (601) 634-4016
Wetlands biologist.
Projects:
Development of wetland evaluation techniques.

Dr. Douglas G. Clarke
US Army Corps of Engineers
Waterways Experiment Station, Environmental Laboratory
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Work phone: **(601) 634-3770**
FAX: (601) 634-4016
Oceanographer.
Projects:
1. Principal investigator of Corps WRP research area on coastal intertidal wetlands.
Site A - Winyah Bay, S. Carolina. *Spartina* marsh naturally established (not transplanted) on dredged material from maintenance dredging projects. Cooperative study of fauna and flora in various age zones in the established marsh. Participants include the Univ. of N. Carolina at Wilmington and the Univ. of S. Carolina Belle Baruch Marine Institute.
Site B - Pelican Spit, Galveston Bay, Texas. Transplanted marsh on dredged material derived from maintenance dredging of intra-coastal waterway. Cooperative project with National Marine Fisheries Service Galveston Laboratory (Tom Minello).

Mr. Gary J. Cuevas
Mississippi Department of Wildlife, Fisheries and Parks
Bureau of Marine Resources
2620 Beach Blvd.
Biloxi, MS 39531
Work phone: **(601) 385-5884**
FAX: (601) 385-5864
Marine Program Manager.
Projects:
1. Marsh site at Pass Christian on Menge Avenue, a small mitigation project.

Dr. Lionel Eleuterius
Gulf Coast Research Laboratory
P.O. Box 7000
Ocean Springs, MS 39564
Work phone: **(601) 872-4200**
FAX: (601) 872-4204

Dr. Mary C. Landin
U.S. Army Corps of Engineers
Waterways Experiment Station, Environmental Laboratory
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Work phone: **(601) 634-2942, (800) 522-6937 ext. 2942**
FAX: (601) 634-4016
Research Biologist.
Projects:
1. Designs, conducts and coordinates many wetland restoration and creation projects involving the use of *Spartina alterniflora* on dredged material placement sites (for the past 20 years) and mitigation projects.
2. Manages COE nation-wide wetlands restoration, protection and establishment research program.
3. Is a member of the National Academy of Sciences committee on the role of technology in Coastal Habitat Restoration and Protection. Producing a final book in the summer, 1993.
4. Manages the monitoring program where *Spartina alterniflora* was used for coastal restoration/creation, sites include: 1) Buttermilk Sound, GA; 2) Apalachicola Bay, FL; 3) Gaillard Island, AL; 4) Bolivar Peninsula, TX; 5) several sites in Chesapeake Bay, MD & VA; 6) Winyah Bay, SC (natural colonization by *S.a.*); 7) several sites in LA & MS; 8) several sites in Tampa Bay, FL.
5. Two EPA-funded restoration studies along the Gulf of Mexico; mostly using *Spartina alterniflora*.

Dr. Mark W. LaSalle
Mississippi State University
Coastal Research and Extension Center
2710 Beach Blvd., Suite 1-E
Biloxi, MS 39531
Work phone: **(601) 388-4710**
FAX: (601) 388-1375
Marine Resource Specialist, Mississippi Sea Grant Office.
Projects:
1. Evaluating transplanted marshes in Mississippi (some *Spartina* but mostly *Juncus*).
2. With COE - coastal wetland management protocol techniques for evaluating relative functional level of marsh - 1 year to completion.
3. Evaluation of different wetland type functions - preliminary work.
4. Evaluating thin layer disposal of dredge materials in marshes as a soil accretion mitigation tool.

Mr. John H. Lowe
Chevron USA Products
Pascagoula Refinery
P.O. Box 1300
Pascagoula, MS 39568-1300
Work phone: **(601) 938-4600**
(601) 938-4363
FAX: (601) 938-4230
Environmental Specialist.
Projects:
1. Graded-down 35 acres of pine plantation into 25 acres of *Juncus/Spartina alterniflora* marsh; 1985.
2. Seeking permit for creation of a 1.4 acre *Spartina alterniflora* marsh; mitigation coupled to a water divergence plan; 1993.

Dr. L. Jean O'Neil
U.S. Army Corps of Engineers
Waterways Experiment Station, Stewardship Branch
CEWESEN-S
3909 Halls Ferry Road
Vicksburg, MS 39180
Work phone: **(601) 634-3641**
FAX: -

Mr. Michael R. Waring
U.S. Army Corps of Engineers
Waterways Experiment Station
P.O. Box 631
Vicksburg, MS 39180
Work phone: **(601) 634-2290**
FAX: -
Biologist; Environmental laboratory.
Projects:
1. Whooping crane habitat characterization, Aransas National Wildlife Refuge, Texas.

New Hampshire

Ms. Sarah D. Allen
Normandeau Associates, Inc.
25 Nashua Road
Bedford, NH 03110
Work phone: **(603) 472-5191**
FAX: (603) 472-7052
Wetland ecologist.
Projects:
1. A manual for monitoring mitigation and restoration projects of New Hampshire's salt marshes; 1992. Includes sampling methods, data collection forms and assessment criteria, plus extensive background and literature on local functions and technical considerations.

Dr. Alan Phelps Ammann
U.S. Soil Conservation Service
New Hampshire State Office
Federal Building
Durham, NH 03824
Work phone: **(603) 868-7581**
FAX: (603) 868-5301
Biologist; wetlands, water quality and wildlife habitat responsibilities.
Projects:
Rye Harbor. 1992. Restored a portion of salt marsh formerly used as harbor dredge material deposition site. This project breached the dike to allow saltwater access to the interior. *Spartina patens* is becoming established in the high marsh area, and the borders of the canals are supporting small stands of *Spartina alterniflora*, as are presently growing around the dike perimeter. *Phragmites* should be reduced as saltwater infiltrates.

Dr. David M. Burdick
University of New Hampshire
Dept. of Natural Resources
Jackson Estuarine Laboratory
85 Adams Point Road, R.F.D. 2
Durham, NH 03824-3406
Work phone: **(603) 862-2175**
FAX: (603) 862-1101
Research/ coastal plant ecology, landscape ecology.
Projects:
1. Halophyte Biology Lab saltmarsh, 3/90.
2. Awcomin Restoration, 4/92
3. Portsmouth Port Expansion, N. Mill Pond, proposed for 6/93.

Mr. Peter S. Helm
New Hampshire, Office of State Planning,
Coastal Program
2-1/2 Beacon Street
Concord, NH 03301
Work phone: **(603) 271-2155**
FAX: (603) 271-1728
Director of Coastal Program; management, wetland restoration planning.
Projects:
1. Overseeing coastal restoration activities for the state of New Hampshire.
2. Managing the efforts to restore a 35-acre dredged material deposition site to a *Spartina alterniflora* salt marsh -- the Awcomin Marsh Restoration Project.
3. Project management of a 15-acre saltmarsh restoration of a former dredged material disposal site along the NM seacoast. Material removal and channel excavation is required; extensive monitoring is also part of the project.
4. Stuart Farm Marsh Restoration project, 1993. Installing of large box culverts will reintroduce tidal exchange to a 10-acre area; project will be monitored for marsh development.

New Jersey

Dr. James F. De Bouno, Ph.D.
James De Bouno & Associates, Inc.
Environmental Engineering
P.O. Box 265, 28 Teabury Court
Marlton, NJ 08053
Work phone: **(609) 985-0455**
FAX: (609) 228-7811
Environmental Scientist/Engineer; wetlands, wildlife, and plant studies.
Projects: more...
1. Inland Project, California Villa wetland restoration in North Hanover, Burlington County, NJ, 1992. Rechannelization of stream, restored grades and wetlands

in a small unnamed stream off the North Run River to help remedy the problem of unauthorized disturbance. (more)
2. Birch Tree Developers restoration; Bergen County, NJ, 1991. Channel bank restoration by fill removal, grading, and replanting wetland.

Mr. Oliver T. Edstrom
Associated Environmental Applications
901 Clarks Landing Road
Egg Harbor City, NJ 08215
Work phone: **(609) 965-4034**
FAX: (call work phone to access FAX)
Consultant; wetlands, enhancement, bank protection, restoration of coastal marshes.
Projects:
1. Several projects involving the planting of *Spartina alterniflora* in coastal areas.
-60 acres of coastal wetlands in New Jersey.
-3.5 acres: intercepting lot, dredge/disposal area.
-5.5 acres: commercial lot.
-1.5 acres: Ferry Terminal enlargement.
-7 acres: high school area.
2. Restoration after construction projects
-projects involved a variety of restoration plans including sites with intercepting pipelines and roadways, aqueduct installations, and force mains.

Mr. James M. Eisenhardt
Joseph L. Lomax and Associates, Inc.
P.O. Box 9
Cape May Court House, NJ 08210
Work phone: **(609) 465-9857**
FAX: (609) 465-2449
Vice-president; wetlands biologist, delineation, design, mitigation restoration.
Projects:
1. Mitigation project where 3-4 acres of coastal land was restored back to tidal marsh from higher elevations that had been taken over by *Phragmites*.
2. Several projects where 3-10 acre areas of uplands were converted to tidal marsh, with successful establishment of *Spartina*.
3. Many projects restoring freshwater wetlands.

Mr. Donald W. Hamer
U.S. Soil Conservation Service
Cape May Plant Materials Center
1536 Route 9N
Cape May Court House, NJ 08210
Work phone: **(609) 465-5901**
FAX: (609) 465-9284
Agronomist/manager; tidal bank restoration and stabilization.
Projects:
1. Developing hardy strains of *Spartina*.
2. Evaluation of *S. patens* for tidal bank stabilization: Choptank River, MD., Broad Bay, VA., Albemarle Sound, NC., and Chesapeake Bay, MD.
3. Evaluation of *S. alterniflora* for tidal bank stabilization: Broad Bay, MD., Occohannock Creek, VA., Choptank River, MD., and Chester River, MD.

Mr. Joseph L. Lomax
Joseph L. Lomax and Associates, Inc.
P.O. Box 9
Cape May Court House, NJ 08210
Work phone: **(609) 465-9857**
FAX: (609) 465-2449
Vice-president; wetlands biologist, delineation, design, mitigation restoration.
Projects:
1. Mitigation project where 3-4 acres of coastal land was restored back to tidal marsh from higher elevations that had been taken over by *Phragmites*.
2. Several projects where 3-10 acre areas of uplands were converted to tidal marsh, with successful establishment of *Spartina*.
3. Many projects restoring freshwater wetlands.

Mr. Christopher F. Miller
U.S. Soil Conservation Service
1370 Hamilton Street
Somerset, NJ 08873
Work phone: **(908) 246-1205, Ext. 144**
FAX: (908) 246-2358
Plant Materials Specialist, Certified. Stabilization of dunes and tidal shoreline.
Projects:
1. Develop and release improved varieties of *Spartina* for use in shoreline stabilization.
2. Evaluate and develop bioengineering techniques utilizing *Spartina*.
3. Provide technical assistance to commercial growers of *Spartina*.

Mr. Ronald W. Prann
International Technology Corporation
Wetland Division
165 Fieldcrest Avenue
Edison, NJ 08837
Work phone: **(908) 225-2000**
FAX: (908) 225-1691
Wetland delineations and land use issues.
Projects:
1. Formosa *Spartina* creation project, 1987. Arthur Kill, NJ/NY Waterway, Cateret, NJ.
2. Navy *Spartina* restoration, 1992, Norfolk, VA.
3. *Spartina* damage assessment following 567,000 gallon No.2 fuel oil spill, Arthur Kill, 1990-1992.

Dr. Joseph K. Shisler
Shisler Environmental Consultants, Inc.
23 Running Brook Drive
Hightown, NJ 08520 (more)
Work phone: **(908) 446-3669**
FAX: (908) 446-2381
Wetlands Ecologist; Mitigation and Restoration.
Projects:
1. Mores Beach, 1972, 600 acres of tidal restoration of a salt hay farm, Cumberland County, NJ.
2. Island Beach State Park, 5 acres of restoration of a wetland system, Ocean County, NJ.
3. Wheelers Hay-Farm, 300 acres of tidal restoration to a salt hay farm, Cape May County, NJ.

New York

Ms. Betsy Adamson
New York City Dept. of Environmental Protection
Natural Systems Planning
59-17 Junction Blvd.
Elmhurst, NY 11373
Work phone: **(718) 595-3509**
FAX: (718) 595-3557
Director; wetland restoration, enhancement, inventory of natural resources, and impact analysis.
Projects:
1. Several projects were implemented where sewer outfall construction requires regrading, restoration or enhancement of degraded shoreline, 1993.
2. April-June, 1993, enhancement of shoreline near the Pelham Municipal Landfill for the treatment of subsurface seeps of landfill leachate.
3. Proposed project - Restoration of high marsh area in Broad Channel, an inhabited island in the middle of Jamaica Bay Wildlife Refuge, where intertidal and high marsh have been lost from filling.

Mr. Michael P. Bontje
B. Laing Associates,
Environmental Science
225 Main Street
Northport, NY 11768
Work phone: **(516) 261-7170**
FAX: (516) 261-7454
President; Environmental design and wetlands restorations.
Projects:

Mr. Sven Hoeger
Creative Habitat Corp.
253 Old Tarrytown Road
White Plains, NY 10603
Work phone: **(914) 948-4389**
FAX: (914) 681-5136
President; Hydro/soil bioengineer and wetlands ecologist.
Projects:
1. Tidal creek salt marsh restoration by Fresh Kills Landfill, 1990.

Mr. Leonard Houston
U.S. Army Corps of Engineers
Special Projects Section - Environmental Branch
26 Federal Plaza
New York, NY 10278
Work phone: **(212) 264-1275**
FAX: (212) 264-5472
Supervisory fisheries biologist; restoration and monitoring.
Projects:
1. Hemstead Harbor, NY. Replanting areas of existing marsh with *Spartina alterniflora*; about 2 acres. 1993.

Mr. Marc A. Matsil
Director Natural Resources Group
City of New York - Parks and Recreation
1234 5th Avenue, Rm. 233
New York, NY 10029
Work phone: **(212) 360-1417**
FAX: (212) 360-1426
Director of NRG; restoration ecology.
Projects:
1. NYC Parks Harbor Herons Wetlands Preserve. Restoration of salt marshes damaged by the 1990 Exxon oil spill; also involves a 6 year restoration, research and monitoring plan.
2. Alley Creek, Alley Pond Park, Queens, NY; *Spartina* salt marsh restoration; completion expected in 1994.
3. Plum Beach salt marsh restoration and dune restoration project; a collaborative effort between NYC Parks Natural Resources Group and the National Parks Service (Gateway NRA); completion expected in 1993.

North Carolina

Dr. Stephen W. Broome
North Carolina State University
Department of Soil Science, Box 7619
Raleigh, NC 27695-7619
Work phone: **(919) 515-2643**
FAX: (919) 515-2167
Associate Professor of biology and ecology; ecosystems, wetlands, macrophytes, soil science, restoration, mitigation.
Projects:
1. North Carolina, South Carolina, Louisiana, and France (Brittany Coast, site of Amoco Cadiz oil spill): effects of oil spills and cleanup activities on coastal marshes (more)
2. Past projects encompassed developing methods for

Spartina alterniflora marsh creation and determining productivity and functional equivalence.

Dr. Christopher B. Craft
Duke University Wetland Center
School of the Environment
Duke University
Durham, NC 27706
Work phone: **(919) 684-2619**
FAX: -
Research Assistant Professor; Biogeochemical cycling in natural and created marshes.
Projects:
1. Dredge spoil stabilization with *Spartina alterniflora*, Spring'87. Hacker's Island-Swansboro-Sneads Ferry, North Carolina. Cooperative project with USCOE and NMFS.
2. Mitigation project, creation of *S. alterniflora* marsh, Spring'89. Cape Fear, North Carolina. Cooperative project with NC Ports Authority.

Ms. Carolyn Currin
National Marine Fisheries Service
SEFC Beaufort Laboratory
101 Pivers Island Rd.
Beaufort, NC 28516
Work phone: **(919) 728-8749**
FAX: (919) 728-8784
Microbiologist; Nitrogen cycling and wetlands restoration.
Projects:
1. Accelerated functional development in transplanted salt marshes. 6/90-93.
2. Evaluation of restored wetlands and enhancement methods for existing restorations. 1992.

Mr. Mark S. Fonseca
National Marine Fisheries Service
SEFC Beaufort Laboratory
101 Pivers Island Rd.
Beaufort, NC 28516
Work phone: **(919) 728-8729**
FAX: (919) 728-8784
Ecologist. Seagrass ecology and restoration.
Projects:
1. NMFS/CORPS MOA-North Carolina, 1985 to present; research involving marsh restoration at Harker Island, Swansboro, and Snead's Ferry, N.C.
2. NMFS-North Carolina, Maryland, Florida, St. Croix, Texas, California, Washington and SE Asia, 1977-present: research in seagrass ecology and restoration including hydrodynamics and landscape pattern.

Mr. Jeffrey C. Furness
Texasgulf Inc.
P.O. Box 48
Aurora, NC 27806
Work phone: **(919) 322-4111**
FAX: (919) 322-4444
Environmental Scientist; consulting, marsh creation and monitoring.
Projects:
1. Planted 10.1 acres of coastal marsh using *Spartina alterniflora, S. patens, S. cynosuroides,* and *Juncus roemerianus* adjacent to South Creek, a tributary of the Pamlico River, near Aurora, NC. Studies were made of vegetative growth and soil development over several years following planting.
2. Planted 1.6 acres of marsh using the three *Spartina* species in the same vicinity. Studies are being made of the fish and benthic populations in the marsh, comparing them with those in a nearby natural marsh.
3. Planted 8.8 acres of the *Spartina spp.* and *Juncus.* Studies of vegetative growth, fish populations, and invertebrate colonization have been done comparing the man-made to natural marsh habitat.

Mr. Douglas Huggett
N.C. Dept. of Transportation, Division of Highways & Planning, Environmental Branch
P.O. Box 25201
Raleigh, NC 27611
Work phone: **(919) 733-9770**
FAX: (919) 733-9794
Environmental Specialist.
Projects:
1. Onslow County, N.C. Created 1.3 acres of *Spartina alterniflora* and *Spartina patens* marsh to offset impacts of construction over 0.5 acres of natural marsh at New River inlet.
2. Dare County, N.C. Created 0.6 acres of *Juncus* marsh to offset impacts of two new bridge constructions at Nag's Head, and created 1.5 acres of *Juncus* marsh near Mantia to offset impacts of a bridge.
3. Working with U.S. Fish and Wildlife Service to put in *Scirpus* marsh at Pea Island Wildlife Refuge.
4. Carteret County, N.C. Creating 2.0 acres of *Juncus* marsh at Cedar Island to mitigate construction impacts on natural *Juncus* marsh.

Dr. Judson W. Kenworthy
National Marine Fisheries Service
SEFC Beaufort Laboratory
101 Pivers Island Rd.
Beaufort, NC 28516
Work phone: **(919) 728-8750**
FAX: (919) 728-8784
Research Fisheries Biologist. Ecology and seagrasses.
Projects:
North Carolina/ Corps MOA 1985 to Present.

Mr. David L. Meyer
National Marine Fisheries Service
SEFC Beaufort Laboratory
101 Pivers Island Rd.
Beaufort, NC 28516
Work phone: **(919) 728-8714**
FAX: (919) 728-8784
Fisheries Biologist. Invertebrate zoology and estuarine ecology.
Projects:
1. NMFS/CORPS MOA-1985 through present.
2. Evaluation of restored wetlands and enhancement methods for existing restored marshes. 6-92 Start.

Dr. Ernest D. Seneca
North Carolina State University
Botany Department
P.O. Box 7612
Raleigh, NC 27695-7612
Work phone: **(919) 515-2727**
FAX: (919) 515-3436
Professor and Head of Dept. Establishment, rehabilitation and restoration of coastal dunes and salt marshes.
Projects:
1. Numerous coastal marsh establishments and restorations among the Atlantic estuaries of the US, using *Spartina alterniflora*.
2. Many publications about materials and methods to create or restore salt marshes using *S. alterniflora*, primarily.
3. Restoration of salt marshes along the Brittany coast of France following the Amoco Cadiz oil spill.

Dr. Gordon W. Thayer
National Marine Fisheries Service
SEFC Beaufort Laboratory
101 Pivers Island Rd.
Beaufort, NC 28516
Work phone: **(919) 228-8747**
FAX: (919) 728-8784
SEFSC Habitat Coordinator, Fishery habitat Research Team Leader, and Fisheries ecologist. Also serves as the Research Coordinator for the NOAA Restoration Center.
Projects:
1. Studying seagrass and salt marsh habitat and restoration from N.C. to Florida from a fisheries perspective.
2. Studying mangrove habitats of South Florida.
3. Advises on salt marsh ecology, mitigation, and restoration, particularly along the mid-Atlantic coastal states.

Ms. Gwendolyn Ann Thunhorst
University of North Carolina
Department of Biology/Ecology
424 Hickory Drive
Chapel Hill, NC 27514
Work phone: FAX: Graduate Student.
Wetland ecology and botany research.
Projects:
Hartz Mountain Wetland Restoration Research-Determination of Reasons for the failure of seeded *Spartina alterniflora* (Enviromental Concerns, INC.) May 1991

Oregon

Mr. Robert L. Emmett
National Marine Fisheries Service
Hammond Laboratory
P.O. Box 187
Hammond, OR 97121
Work phone: **(503) 861-1818**
FAX: -
Fisheries research; estuarine salmonid habitat.
Projects:
1. Interested in usage of *Spartina alterniflora* marshes by fish and invertebrates.
2. Cooperative study with the Corps of Engineers concerning stranding of juvenile salmonids by ship wakes in the Columbia River.
3. Potential use of dredged material to rebuild intertidal areas that have been scoured, and possible stabilization using marsh grasses.

Ms. Paula Levin
U.S. Fish and Wildlife Service
Habitat Conservation / Federal Activities
911 NE 11th Ave.
Portland, OR 97232
Work phone: **(503) 231-2068**
FAX: (503) 231-2080
Coastal Program Coordinator; wetlands and regulatory activities.

Mr. John Marshall
U.S. Fish and Wildlife Service
Oregon State Office
2600 SE 98th Ave., Suite 100
Portland, OR 97266
Work phone: **(503) 231-6179**
FAX: (503) 231-6195
Biologist; coastal permits and NEPA review.
Projects:
1. Proposed salt marsh restoration by dike breaching on the Salmon River Estuary. U.S. Forest Service.
2. Restoration of tidal exchange to a tidal salt marsh in Trestle Bay by breaching a jetty and a causeway. U.S. Army Corps of Engineers and Oregon State Parks Dept.

Mr. Richard P. Novitzki
ManTech Environmental Technology, Inc.
1600 SW Western Blvd.
Corvallis, OR 97333

Work phone: **(503) 754-4666**
FAX: (503) 754-4335
Senior Scientist; EMAP wetlands.
Projects:

Pennsylvania

Dr. Keith L. Bildstein
Hawk Mountain Sanctuary
R.R. 2, Box 191
Kempton, PA 19526
Work phone: **(215) 756-6961**
FAX: (215) 756-4468
Director of Research. Avian ecology and fiddler crab ecology.
Projects:
1. Long term study of white ibis, their breeding and feeding ecology in S. Carolina freshwater, brackish water and *Spartina alterniflora* marshes.
2. Long term effects of hurricane Hugo on the breeding ecology of wading birds in coastal salt marshes in S. Carolina.
3. Ecological studies of fiddler crabs, their burrowing behavior in *Spartina* and brackish marshes.

Mr. Edward R. Bonner
U.S. Army Corps of Engineers, Philadelphia District
Regulatory Branch
100 Penn Square East, Wanamaker Building
Philadelphia, PA 19107-3390
Work phone: **(215) 656-6728**
FAX: (215) 656-6724
Senior biologist; permitting and mitigation.
Projects:
1. Delaware DOT mitigation on the St. Jones River established about 4 acres of *Spartina alterniflora* marsh in 1986. Planted by Environmental Concern, Inc.
2. At Siliguini, about 1 acre of irregularly flooded salt marsh having *Spartina alterniflora, Salicornia sp.*, and *Distichlis spicata*.

Mr. Kevin W. Dougherty
A.D. Marble & Company
1062 Lancaster Ave.
Rosemont, PA 19010
Work phone: **(215) 527-9311**
FAX: (215) 527-5646
Senior environmental planner, and Certified Ecologist, ESA; freshwater and tidal wetlands.
Projects:
1. A 0.5 acre low marsh of *Spartina alterniflora* in Cape May County, NJ; design approved, construction scheduled for March 1993.
2. A 2.3 acre tidal freshwater marsh restoration in Prince George's County, MD; design approved August 1991.
3. A 0.2 acre tidal freshwater marsh restoration for oil damage in Monmouth County, NJ, in 1990.

Mr. Barry Dubinski
Roy F. Weston, Inc.
1 Weston Way
West Chester, PA 19380
Work phone: **(215) 430-3137**
FAX: (215) 430-7401

Dr. Michael A. Hardisky
University of Scranton
Biology Department
Scranton, PA 18510
Work phone: **(717) 941-7514**
FAX: (717) 941-6369
Professor; researcher.

Dr. Willard C. McCartney
Michael Baker, Jr., Inc.
Transportation Planning (Environmental)
Airport Office Park, 420 Rouser Rd., Bldg.#3
Coraoplis, PA 15108
Work phone: **(412) 269-4601**
FAX: (412) 269-2048
Environmental Manager; Vertebrate and wetland ecology.
Projects:
1. Plum Beach Restoration, 9-92. Shoreline stabilization and marsh restoration.
2. Several freshwater wetland restoration projects.

Mr. Schucet
Baker Engineers
Building 3, 420 Rouser Road
Coraoplis, PA 15108
Work phone: **(412) 269-2048**
FAX: (412) 269-4604
Projects in both New York and Virginia.

Rhode Island

Mr. Joseph Dowhan
U.S. Fish and Wildlife Service
South New England Estuary Project
Shoreline Plaza
P.O. Box 307
Charlestown, RI 02813
Work phone: **(401) 364-9124**
FAX: (401) 364-0170

Dr. Frank Golet
University of Rhode Island
Department of Natural Resources Science
Woodward Hall
Kingston, RI 02881
Work phone: **(401) 792-2916**
FAX: (401) 792-4561
Professor and research scientist; avian and wetland ecology.
Projects:
1. Narragansett, RI. Baseline ecological study of the 125 acre Galilee Bird Sanctuary regarding tidal regime, ground water levels, vegetation types and habitats, salinity profiles, and use of the area by migratory and locally breeding populations of birds. The sanctuary, which was largely cut off from tidal flow in 1956--and is now brackish--will be restored to salt marsh in 1994. GIS technology is being used to compare historic conditions to current conditions to aid in designing the restoration plan.
2. 25 years of research studies involving the ecology of forested wetlands.
3. Recent studies of bird usage of coastal marshes, with varying degrees of mosquito control ditching.

Mr. Scott S. Hobson
Environmental Scientific Corporation
Division of Keyes Associates
10 Lincoln Center Boulevard
Lincoln, RI 02865
Work phone: **(401) 333-0100 ext. 27**
FAX: (401) 333-4556
Environmental scientist; wetlands delineation and permitting.
Projects:
Assist individuals, companies and agencies with delineation of wetlands, mitigation activities including restoration design and obtaining permits from local, state, and federal agencies when necessary.

Mr. Paul J. Shea, MA
Independent Environmental Consultants, Inc.
32 Levitt Lane
Exeter, RI 02822
Work phone: **(401) 294-3909**
FAX: -
Biologist, hydrologist. Environmental assessments; coastal and freshwater wetlands.
Projects:
1. Coastal restoration of Winnapaug Pond, assessment of critical area, 1992.
2. Numerous freshwater wetland restorations.

Ms. Dana Zewinski
Environmental Scientific Corporation
Division of Keyes Associates
10 Lincoln Center Boulevard
Lincoln, RI 02865
Work phone: **(401) 333-0100**
FAX: (401) 333-4556
Environmental scientist; wetlands delineation and permitting.
Projects:
Assist individuals, companies and agencies with delineation of wetlands, mitigation activities including restoration design and obtaining permits from local, state, and federal agencies when necessary.

South Carolina

Dr. Vincent J. Bellis, Jr.
East Carolina University, Department of Biology
P.O. Box 4353
Greenville, SC 27858-4353
Work phone: **(919) 757-6296**
FAX: (919) 757-4178
Professor of Biology; Wetlands and resource management.
Projects:
Primary production in saltmarshes (*Spartina patens* and *S. cynosuroides*) by algae and diatoms.

Dr. Elizabeth R. Blood
University of South Carolina
Department of Environmental Health Services
Columbia, SC 29208
Work phone: **(803) 777-6994**
FAX: (803) 777-4783
Associate Professor. Biogeochemistry and nitrogen cycling.
Projects:
Nitrogen cycling in *Spartina* marshes in the Charleston, S.C. area.

Mr. Andrew L. Bunch
R. S. Industries
P.O. Box 1594
Georgetown, SC 29442-1594
Work phone: **(803) 527-2204**
FAX: -
Executive, Foreign Relations Technical Div. Database research/compilation and military assessments and affairs.
Projects:
1. Wetlands database compilation, 8-91.
2. *Spartina alterniflora* database and directory construction, 6-92.

Dr. Robert R. Christian
East Carolina University, Biology Department
P.O. Box 4353
Greenville, SC 27858
Work phone: **(919) 757-6287**
FAX: (919) 757-4178

Professor of Biology; Estuarine microbial ecology and system ecology.
Projects:
1. High marsh dynamics and the influence of tidal inundation.
2. Below ground processes of production and decomposition.
3. Nitrogen cycling and exchanges between sediment and water.

Mr. John Hensel
S.C. Coastal Council, Permitting
4130 Faber Place, Suite 300
Charleston, SC 29405
Work phone: **(803) 744-5838**
FAX: (803) 744-5847
Chief of Permit Enforcement
Projects:
1. 1993-present. SCDHPT Highway and bridge construction project. Grade down old causeway to elevation of adjacent marsh to allow revegetation by marsh plants of 4.5 acres of intertidal zone.
2. 1993-present. North Charleston Sewer District mitigation for fill associated with the expansion of a waste treatment facility. Wooded upland (0.8 acre) was graded to intertidal elevations to allow revegetation by surrounding marshes in the Ashley River.
3. Mitigation by Walling Grove Development Co. for fill allowed to widen an existing causeway. Project involves establishing brackish marsh in an area of graded down upland; 0.1 acre.

Dr. Eric Thor Koepfler
University of South Carolina - Coastal Carolina College
P.O. Box 1954
Conway, SC 29526
Work phone: **(803) 349-2222**
FAX: (803) 349-2990
Assistant Professor.
Projects:
Testing a theory between the interplay between ecosystem maturation and physical development coastal systems.

Dr. Richard H. Moore
University of South Carolina
Coastal Carolina College
Box 1954
Conway, SC 29526
Work phone: **(803) 349-2050**
FAX: (803) 349-2900
Professor and Ass. Vice Chancellor
Bio-Ecology; community, wetlands, nekton, fish.
Projects:
1. A community ecology study of estuarine fishes in Singleton Swash, SC, a *Spartina* marsh inlet.
2. Estuarine study of the biology of the spotfin mojarra, *Eucinostomus argenteus.*

Mr. Steve Moore
South Carolina Coastal Council
4130 Faber Place Suite 300
Charleston, SC 29405
Work phone: **(803) 744-5838**
FAX: (803) 744-5847
Permit Administrator.
Projects:
Administers permits for wetlands

Dr. James T. Morris
University of South Carolina
Department of Biological Sciences
Columbia, SC 29208
Work phone: **(803) 777-3940**
FAX: (803) 777-4002
Professor. Wetlands ecology and plant physical ecology.
Projects:
1. Effect of nitrogen loading on wetlands ecosystem: particular reference to atmospheric deposition. 1992

Dr. Harold Ornes
University of South Carolina
Department of Biology and Geology
171 University Parkway
Aiken, SC 29801
Work phone: **(803) 648-6851**
FAX: (803) 641-3382
Chairman, Department of Biology & Ecology; Ecology of wetlands (algae, macrophytes, nutrients, sediments).
Projects:
1. Nutrient status of *Spartina* in North Inlet, S.C.
2. Live and dead stems and roots nutrient composition of *Spartina* at North Inlet, S.C.
3. Monitoring of the vegetation after cleanup and restoration of Lost Lake, a Carolina Bay at the Savannah River Site, Aiken, S.C.

Mr. Mark Purcell
U.S. Army Corps of Engineers, Regulatory Branch
P.O. Box 919
Charleston, SC 29402

Dr. Robert F. Van Dolah
S.C. Wildlife & Marine Resource Dept.
Marine Resource Research Institute
P.O. Box 12559
Charleston, SC 29412
Work phone: **(803) 762-5048**
FAX: (803) 762-5110
Assistant Director. Benthic ecology and environmental assessment.

Texas

Mr. John S. Adams
The Conrad Blucher Institute for Surveying & Science
Texas A & M University - Corpus Christi
6300 Ocean Drive
Corpus Christi, TX 78412
Work phone: **(512) 994-2376**
FAX: (512) 994-2715
Biologist; estuarine ecosystems.
Projects: (more)
1. Applications of telemetric collection of coastal environmental data.
2. Monitoring of 'attempted' creation of a *Spartina alterniflora* salt marsh in the Nueces River delta, Texas, 1990-1991.
3. Creation of a 'mini' *Spartina alterniflora* salt marsh in relation to water level fluctuations and soil elevation in the Nueces River delta.

Mr. Charles E. Belaire
Belaire Consulting, Inc.
P.O. Box 741
Rockport, TX 78382
Work phone: **(512) 729-2948**
more...
FAX: (512) 729-2970
President; wetlands planning, design, and construction.
Projects:
1. Creation of 7.5 acres of *Spartina alterniflora* marsh in Mesquite Bay, Texas, 1992. A mitigation project by Mitchell Energy Corp.
2. Creation of two *S. alterniflora* marshes totaling 5 acres on Pelican Spit in Galveston Bay, Texas, 1991. COE projects utilizing dredged material to fill low areas.
3. Kon Tiki Condos mitigation project in Aransas Bay created a small 0.1 acre wetland.
4. Planning, permitting, installation, and monitoring of 54 acres of seagrass habitat to restore and mitigate impacts due to construction of a 20" Transco pipeline in the Upper Laguna Madre, Texas, 1989-1990.
5. Planting of 45 acres of seagrass in the Lower Laguna Madre to restore impacts due to dredge material disposal for Energy Development Corp., 1990.

Mr. Paul Carangelo, R.E.M.
Island Botanics, Environmental Consultants
3734 Flour Bluff Dr.
Corpus Christi, TX 78418
Work phone: **(512) 937-4873**
FAX: -
Environmental and regulatory management; Ecological consulting, habitat restoration, wetland and seagrass bed evaluation, restoration, and construction.
Projects:
1. Texas State Aquarium. Designed and built a 1.25 acre marsh exhibit which included transitional habitats from uplands to *Spartina alterniflora* marsh to subtidal seagrass beds and oyster reefs.
2. San Patricio County Navigation District No.1. Designed and built a *Spartina alterniflora* wetlands for mitigation of marina facility expansion; Redfish Bay, Texas.
3. Confidential client. Major oil company. Designed and built a seagrass bed at a mitigation site in Laguna Madre, Texas.
4. Lake Padre Development Corp. Designed and built a 7.0 acre *Spartina alterniflora / Batis maritima*, brackish and fresh marsh and submergent habitat wetlands on North Padre Island, Texas.
5. Completed certification as a Registered Environmental Manager, Registration #3011.

Mrs. Patricia B. Clements
U.S. Fish and Wildlife Service
Texas A & M University - Corpus Christi
Campus Box 338
6300 Ocean Drive
Corpus Christi, TX 78412
Work phone: **(512) 994-9005**
FAX: (512) 994-8262
Fishery Biologist
Projects:
Evaluations of projects impacting fish and wildlife habitats.

Mr. Dolan Dunn
U.S. Army Corps of Engineers, Galveston District
Regulatory Branch
P.O. Box 1229
Galveston, TX 77553
Work phone: **(409) 766-3935**
FAX: (409) 766-3931
Chief, Special Actions Section.
Projects:
1. Jurisdiction from Cameron Parish, Louisiana, to Mexico for the Department of the Army Permit Program.

Mr. Rudy G. Esquivel
U.S. Soil Conservation Service
Plant Materials Center
Texas A&I University Campus Box 218
Kingsville, TX 78363
Work phone: **(512) 595-3960**
FAX: (512) 595-3713
Assistant Manager.
Projects:
1. Primary practices rearing of prairie grasses and forbes (switch grass, green sprinkle grass, Russian olive, kidney woods, *Pasculum*, alkali sacaton
2. Starting *Spartina* germ plasm propagation project.

Mr. Philip O. Glass
U.S. Fish and Wildlife Service
17629 El Camino Real, Suite 211
Houston, TX 77058
Work phone: **(713) 286-8282**
FAX: (713) 488-5882
Fish and wildlife biologist
Projects:
1. Houston Ship Channel Widening Project. Creation of saltmarsh habitat on dredged material islands.
2. Colonial waterbird colony census and research in Galveston Bay.

Ms. Alisha R. Goldberg
National Marine Fisheries Service
SEFC Galveston Laboratory
4700 Ave U
Galveston, TX 77551-5997
Work phone: **(409) 766-3550**
FAX: (409) 766-3508
Fishery Biologist; benthic infauna, transplanted saltmarsh.
Projects:
1. Galveston Island State Park marsh evaluation for fisheries species.
2. A study of the development of benthic infauna in a transplanted *Spartina alterniflora* marsh, 1992-1993.

Mr. Richard Harrington
Texas Parks & Wildlife Department
Resource Protection Div., Habitat Assessment Branch
Texas A & M University - Corpus Christi
6300 Ocean Drive, Campus Box 317
Corpus Christi, TX 78412
Work phone: **(512) 993-4491**
FAX: (512) 993-4597
Regional biologist; protect wildlife and fishery resources and habitats.
Projects:
1. Provide recommendations regarding avoiding, minimizing, and compensating for wetland impacts.
2. Monitor required wetland, marsh, and seagrass bed mitigation projects for compliance and success.
3. Coordinate with the SCS concerning use of *Spartina alterniflora* for shoreline stabilization in middle and south Texas bays.
4. Recommend areas for beneficial use of dredged material, including areas for marsh creation, e.g. the 13 acres of marsh created by the Mitchell Energy Corporation in Mesquite Bay, Texas, which increases feeding habitat for the endangered whooping crane.

Ms. Lynnda M. Kahn
Texas General Land Office
111 West Wilson, Naylor Bldg.
Aransas Pass, TX 78336
Work phone: **(512) 758-7228**
FAX: (518) 758-1430
Environmental Quality Specialist; field inspections, including wetlands and coastal marshes.
Projects:
1. Clark Island mitigation in lower Laguna Madre involved excavation and planting of a 3 acre site with *S. alterniflora* and *Halodule wrightii*, 1989.
2. Pelone Island in Corpus Christi Bay had a 3 acre site excavated and 1.5 acres of it planted with *Halodule*, 1988.
3. Evaluation of a 20 acre excavated site in the upper Laguna Madre, which was done for the establishment of seagrass habitat. No planting was required, 1991.

Mr. Paul Lazarene
U.S. Army Corps of Engineers, Galveston District
Corpus Christi Area Office
P.O. Box 2948
Corpus Christi, TX 78403-2948
Work phone: **(512) 880-8135**
FAX: (512) 884-4959
Wetlands Biologist, regulatory.
Projects:
1. Wetland delineations, various.
2. Investigation of unauthorized activities in the coastal area.

Mr. John Lloyd-Reilley
U.S. Soil Conservation Service
Plant Materials Center
R.R. 1, Box 608-T
Kingsville, TX 78363
Work phone: **(512) 595-1313**
FAX: (512) 595-3713
Manager.
Projects:
1. Evaluates growth characteristics of grasses and forbes for soil and water conservation (sand dune stabilization, saline soil regeneration, water quality improvement for sewage treatment plants, wildlife habitat and cool-season forages).
2. *Spartina* plant propagation.
3. Out-planting for shoreline erosion and evaluating *Rhizoctenia* resistance and salinity tolerance.

Dr. Geoffrey A. Matthews
National Marine Fisheries Service
SEFC Galveston Laboratory
4700 Ave U
Galveston, TX 77551-5997
Work phone: **(409) 766-3532**
FAX: (409) 766-3508
Biological oceanographer; Habitat research; Forecast modeling.
Projects:
1. Marsh REC directory, annotated bibliography, and techniques evaluation.

2. Created/restored *Spartina alterniflora* marsh inventory and monitoring.

Mr. John E. Mauney
Number "1" Nursery
Landscape Division
131 Rabon Chapel Road
Montgomery, TX 77356
Work phone: **(409) 588-2508, 1-800-288-2508**
FAX: -
Owner/manager; Contract growing, reforestation, landscape consulting.
Projects:
1. Trout Creek Flood Control, Kirbyville, Texas. Nov. 1990 - reforestation using 800 1-gal trees 1-5 feet tall.
2. Harris County Flood Control District, Unit No.E500-04-00, mitigation planting and maintenance, Job No: 93/0094; planting of 5000 1-gal trees.
3. Growing *Spartina alterniflora* for restoration projects.

Mr. Rick Medina
U.S. Army Corps of Engineers, Galveston Dist.
Environmental Resources Branch
P.O. Box 1229
Galveston, TX 77550-1229
Work phone: **(409) 766-3044**
FAX: (409) 766-3064
Chief, Environmental Resources Branch
Projects:
1. Pelican Spit *Spartina alterniflora* marsh creation.
2. East Matagorda Bay *Spartina alterniflora* marsh creation.
3. Chocolate Bayou *Spartina alterniflora* marsh creation.

Dr. Thomas J. Minello
National Marine Fisheries Service
SEFC Galveston Laboratory
4700 Ave U
Galveston, TX 77551-5997
Work phone: **(409) 766-3506**
FAX: (409) 766-3508
Research Ecologist; habitat interactions with fishery species.
Projects:
1. Marsh REC directory, bibliography & evaluation of successful techniques.
2. Comparisons of fishery value in natural and created marshes.
3. Relationships between sediments and benthic infauna in created marshes.

Mr. Donald Moore
National Marine Fisheries Service
SEFC Habitat Protection Division
4700 Avenue U
Galveston, TX 77551-5997
Work phone: **(409) 766-3699**
FAX: (409) 766-3575
Director of NMFS Habitat Conservation office for Texas; fisheries and wetlands.
Projects:
1. Evaluates proposed changes to fisheries habitats, and makes recommendations which will minimize impacts to the habitats; else, seeks mitigation when habitat damages occur.
2. Mouth of the Colorado River, Texas, Diversion Project, June, 1989. Promoted the diversion of the river back into Matagorda Bay.
3. Corpus Christi, Texas, Ship Channel Project. Actions prevented deposition of dredged material which would have covered one fifth of Nueces Bay.
4. Houston-Galveston, Texas, Ship Channel Project. Delayed authorization for dredging until studies of the environmental impacts of using dredged material in the bay can be evaluated; authorization delayed until 1996.

Mr. Lloyd Mullins
Texas General Land Office, Field Operations
111 W. Wilson, 2nd floor Naylor Bldg.
Aransas Pass, TX 78336
Work phone: **(512) 758-7228**
FAX: (512) 758-1430
Office Manager and Field Biologist; wetland mitigation and permitting.
Projects:
1. Clark Island mitigation in lower Laguna Madre involved excavation and planting of a 3 acre site with *S. alterniflora* and *Halodule wrightii*, 1989.
2. Pelone Island in Corpus Christi Bay had a 3 acre site excavated and 1.5 acres of it planted with *Halodule*, 1988.
3. Evaluation of a 20 acre excavated site in the upper Laguna Madre, which was done for the establishment of seagrass habitat. No planting was required, 1991.

Mr. Robert William Nailon
ENSR Consulting and Engineering
Toxicology & Risk Management
3000 Richmond Ave.
Houston, TX 77098
Work phone: **(713) 520-9900**
FAX: (713) 520-6802
Senior Fisheries Biologist/Wetlands.
Projects:
1. East Galveston Bay, 1985, *Spartina alterniflora* marsh created on north shoreline; 9 mile fetch; difficult to establish but now functional marsh with fisheries organisms.
2. San Jacinto River, 1988, *Spartina alterniflora* marsh created on dredge material islands; difficult to establish without fencing plots, i.e.. predation by rabbits, grass carp, nutria, and grasshoppers.
3. Taylor Lake, 1991 (EPA grant); *Spartina alterniflora* marsh.

4. Swan Lake, Texas City area, 1992 (EPA grant); *Spartina alterniflora* marsh shows initial success.
5. Trinity River delta, 1991-1992 (EPA grant); *Spartina alterniflora* marsh showed moderate success but nutria predation was a problem.
6. LaPorte, Little Cedar Bayou, 1991 (EPA grant); *Spartina alterniflora* marsh successful, but ship wake problem exists.
7. Morgans Point, 1991 (EPA grant); *Spartina alterniflora* marsh; initial success; ship wakes are again a problem.

Mr. Brien A. Nicolau
Texas A & M University - Corpus Christi
Center for Coastal Studies
6300 Ocean Drive
Corpus Christi, TX 78412
Work phone: **(512) 994-2736 or 2465**
FAX: -
Graduate Research Assistant. Benthos and epifauna of coastal wetlands.
Projects:
1. Monitoring of the benthos and epifauna in the area of a failed attempt at creating a *Spartina alterniflora* salt marsh in the Nueces River delta, Texas, 1991-1993.
2. Creation of a 'mini' *Spartina alterniflora* salt marsh in relation to water level fluctuations and soil elevation in the Nueces River delta.

Mrs. Katie Northrup
Northrup Associates, Inc.
9328 Westview Drive, Suite 100
Houston, TX 77055
Work phone: **(713) 461-3489**
FAX: (713) 461-2671
Environmental Planner; consulting.

Dr. Lawrence P. Rozas
National Marine Fisheries Service
SEFC Galveston Laboratory
4700 Avenue U
Galveston, TX 77551-5997
Work phone: **(409) 766-3532**
FAX: (409) 766-3508
Ecologist; Estuarine/wetlands, fisheries ecology.
Projects:
1. Influence of hydroperiod on use of Gulf coast marshes by fishes and macro crustaceans. 1990-93 studying relationship between salt marsh elevation and use by nekton; *Spartina alterniflora* and *Distichlis spicata* marshes.
2. Potential for enhancement of fisheries habitat by filling OCS pipeline canals. 1990-93 studying relationship between canal depth and habitat utilization in brackish and salt marshes.
3. Nekton use of the marsh surface: a comparison between channeled and natural marshes. 1989-1992 examined *Spartina alterniflora* marsh-surface used by nekton on marshes adjacent to pipeline canals and on natural marshes.
4. Evaluation of marsh creation on Atkinson Island dredged material with respect to establishing a fisheries habitat.

Mr. Eddie Seidensticker
U.S. Soil Conservation Service
17324-A Hwy. 3
Webster, TX 77598
Work phone: **(713) 332-3381**
FAX: (713) 332-3253
Resource Conservationist/ vegetative shoreline erosion control specialist.
Projects:
1. Morgan's Point, shoreline stabilization using *Spartina alterniflora*; 1992.
2. Little Cedar Bayou, south shore stabilization with *S. alterniflora*; 1991, 1992.
3. Several plantings of *S. alterniflora* along the San Jacinto River; 1990-1992.
4. At least 12 other projects for shoreline stabilization using *Spartina alterniflora*, in the Galveston Bay area.

Ms. Linda Shead
Galveston Bay Foundation
17324-A Hwy. 3
Webster, TX 77598
Work phone: **(713) 332-3381**
FAX: (713) 332-3153
Executive Director.
Projects:
1. Morgan's Point, shoreline stabilization using *Spartina alterniflora*; 1992.
2. Little Cedar Bayou, south shore stabilization with *S. alterniflora*; 1991, 1992.
3. Several plantings of *S. alterniflora* along the San Jacinto River; 1990-1992.

Dr. R. Michael Smart
U.S. Army Corps of Engineers
Waterways Experiment Station
RR 3, Box 446
Lewisville, TX 75056-9720
Work phone: **(214) 436-2215**
FAX: (214) 436-1402
Research Team Leader; Aquatic plant ecologist.
Projects:
1. Studies with freshwater plants.

Mr. R. Darrell Smith
Jones/Smith Environmental Services, Inc.
P.O. Drawer M
Dickinson, TX 77539
Work phone: **(713) 585-1766**
FAX: (713) 331-4119 (more)

Aquatic Ecologist; wetlands and endangered species. Mitigation plan for *Spartina* planting project. Located at the mouth of the San Jacinto River, 1993.

Mr. James A. Sutherlin
Texas Parks and Wildlife Department
J.D. Murphree Wildlife Management Area
10 Parks and Wildlife Drive
Port Arthur, TX 77640
Work phone: **(409) 736-2551**
FAX: (409) 736-0382
Wildlife Biologist.
Projects:
1. J.D. Murphree Wildlife Management Area, Jefferson County.
2. Lower Neches Wildlife Management Area, Orange County.

Mr. Russell E. Swafford
National Marine Fisheries Service
SEFC Galveston Laboratory, Habitat Conservation Division
4700 Ave U
Galveston, TX 77551-5997
Work phone: **(409) 766-3699**
FAX: (409) 766-3575
Fisheries Habitat Conservationist; wetlands, fisheries ecology.
Projects:
1. Wetlands mitigation/restoration; many projects such as a 5 acre plot along Swan Lake where a *Spartina alterniflora* marsh was restored by Amoco Oil in 1992, and the Pierce Marsh creation of a *Spartina alterniflora* - *S. patens* marsh by Sandifer Petroleum in 1992.
2. Seagrass mitigation/restoration; many projects including the Padre Isles Subdivision restoration of about 2 acres of seagrass beds in Upper Laguna Madre.
3. Beneficial uses of dredged material; monitoring of 250 acres at Atkinson Island and West Bay demonstration projects involving marsh creation and stabilization of shorelines using dredged material and *Spartina alterniflora*.

Mr. David L. Trimm
ENTRIX, Inc.
515 Post Oak Blvd., Suite 400
Houston, TX 77027
Work phone: **(713) 960-9733**
FAX: (713) 960-9461
Senior Staff Scientist/ Marine fisheries/ Ecology/ Wetlands ecology.

Dr. John W. Tunnell, Jr.
Texas A & M University - Corpus Christi
Center for Coastal Studies
6300 Ocean Drive
Corpus Christi, TX 78412
Work phone: **(512) 994-2768**
FAX: (512) 994-2770
Director of the Center for Coastal Studies; Research and teaching of coastal biology.
Projects:
1. Mitigation monitoring of a salt marsh creation project, Nueces River Delta, TX, 1989-present.
2. Environmental impact and recovery of the EXXON Pipeline oil spill and burn site (high marsh), Copano Bay, 1992-present.

Ms. Mary Ellen Vega
Texas Parks & Wildlife Department
Resource Protection Div., Habitat Assessment Branch
c/o Corpus Christi State Univ., Campus Box 317
6300 Ocean Drive
Corpus Christi, TX 78412
Work phone: **(512) 993-4491**
FAX: (512) 993-4597
Biologist; protect wildlife and fishery resources and habitats.
Projects:
1. Provide recommendations regarding avoiding, minimizing, and compensating for wetland impacts.
2. Monitor required wetland, marsh, and seagrass bed mitigation projects for compliance and success.
3. Coordinate with the SCS concerning use of *Spartina alterniflora* for shoreline stabilization in middle and south Texas bays.
4. Recommend areas for beneficial use of dredged material, including areas for marsh creation, e.g. the 13 acres of marsh created by the Mitchell Energy Corporation in Mesquite Bay, Texas, which increases feeding habitat for the endangered whooping crane.

Dr. James W. Webb, Jr.
Texas A&M University at Galveston
P.O. Box 1675
Galveston, TX 77553
Work phone: **(409) 740-4542**
FAX: (409) 740-5001
Professor; Research on *Spartina* marsh restoration and creation.
Projects:
1. An ecosystem comparison of transplanted and native salt marshes: the chronological development of habitat value for fishery species. NOAA Coastal Ocean Program, Estuarine Habitat Research Program. 1990-93.
2. Habitat availability and utilization by benthos and nekton in Hall's Lake and West Galveston Bay. NMFS/US Army COE program. 1991.
3. Salt marsh mitigation for Motco Superfund site.

Mr. Frederick T. Werner, Jr.
U.S. Fish and Wildlife Service
17629 El Camino Real, Suite 211
Houston, TX 77058
Work phone: **(713) 286-8282**

FAX: (713) 488-5882
Fish and wildlife biologist
Projects:
1. Seabrook Slough; federal project to mitigate impacted wetlands. *Spartina alterniflora* was planted to establish saltmarsh.
2. Saltmarsh restoration at a site along the north shore of Clear Lake; property owned by Harry Reed.

Mr. Richard M. Yuill
ENTRIX, Inc.
515 Post Oak Blvd., Suite 400
Houston, TX 77027
Work phone: **(713) 960-9733**
FAX: (713) 960-9461
Environmental Sciences Group Manager; Estuarine benthos, wetlands ecology
Projects:

Dr. Roger J. Zimmerman
National Marine Fisheries Service
SEFC Galveston Laboratory
4700 Ave. U
Galveston, TX 77551-5997
Work phone: **(409) 766-3500**
FAX: (409) 766-3508
Acting Lab Director, Galveston Lab; Research ecologist, habitats for fisheries organisms.
Projects:
1. Galveston Island State Park marsh evaluation for fisheries species.
2. Galveston Bay habitat evaluation for placement of dredged material from the Houston Ship Channel widening.
3. Feeding preferences of juvenile penaeid shrimp.

Virginia

Dr. Linda K. Blum
University of Virginia-Charlottesville
Department of Environmental Science
Clark Hall
Charlottesville, VA 22903
Work phone: **(804) 924-0560**
FAX: (804) 982-2137 more...
Research Assistant Professor. Microbial and estuarine ecology.
Projects:
1. A study of root dynamics and microbial processes involved with carbon and nitrogen changes in decay and production by short and tall forms of *Spartina alterniflora*.
2. A comparison of the contributions of *Spartina alterniflora* and phytoplankton to the dissolved organic carbon pool used by bacteria in a tidal creek.

Mr. Terry Getchell
U.S. Army Corps of Engineers
Civil Programs Branch
803 Front St.
Norfolk, VA 23510
Work phone: **(804) 441-7617**
Environmental scientist; wetlands and hardwood swamps.
Projects:
1. Various sites on the Elizabeth River had marsh creation/restoration actions; total area of about 10 acres.
2. Hampton Roads sites with marsh creation; total area of about 20 acres; from 1987-present.
3. Proposed project to convert a barrow pit into about 20 acres of *Spartina alterniflora* marsh and 10 acres of hardwood swamp; proposed for 1994-95.

Mrs. Robin V. Morgan
Williamsburg Environmental Group, Inc.
P.O. Box 3584
Williamsburg, VA 23187
Work phone: **(804) 220-6869**
FAX: (804) 229-4507
Ecologist; consulting.
Projects:
1. Restoration of a 0.5 acre marsh along the Elizabeth River in Tidewater, Virginia, by sprigging with *Spartina alterniflora*.
2. Several palustrine mitigation projects that involved design and creation; emergent and forested wetlands mainly in central Virginia.

Mr. A. Keith Taniguchi
U.S. Fish and Wildlife Service,
Habitat Conservation, Coastal & Wetland Resources
4401 N. Fairfax Drive, 400 ARLSQ
Arlington, VA 22203
Work phone: **(703) 358-2201**
FAX: (703) 358-2232
Information specialist, wetlands.

Washington

Dr. David A. Armstrong
University of Washington
School of Fisheries, WH-10
Seattle, WA 98195
Work phone: **(206) 543-6132**
FAX: (206) 685-3224
Professor; invertebrate ecology.
Projects:
1. Ecology of tidal flats in NW estuaries.
2. Use of intertidal oyster shell to enhance recruitment and survival of 0+ dungeness crab (*Cancer magister*) in Grays Harbor Estuary. This project has led to construction of over 8 hectares of shell habitat, and includes provisions to

limit movement of *Spartina* seed from Willapa Bay with shell transported from that estuary.
3. Shell, shrimp and eelgrass interactions in the Willapa estuary. The healthy shell/eelgrass tideflats lacks high densities of thalissinid shrimp, and may reduce proliferation of exotic *Spartina alterniflora* in estuaries of the Pacific Northwest.

Dr. Douglas A. Bulthuis
Padilla Bay National Estuarine Research Reserve
Washington State Department of Ecology
1043 Bay View - Edison Road
Mount Vernon, WA 98273
Work phone: **(206) 428-1558**
FAX: (206) 428-1491
Research Coordinator; seagrasses, estuarine biology.
Projects:
1. Assess the effectiveness of glyphosate on killing *Spartina alterniflora* in Padilla Bay, and the effects on adjacent and intermixed native salt marsh plants. June 1992.

Mr. Brett R. Dumbauld
Washington State Department of Fisheries
Marine Fish/Shellfish
P.O. Box 190
Ocean Park, WA 98640
Work phone: **(206) 665-4166**
FAX: (206) 665-6716
Fisheries Biologist; shellfish life history, estuarine ecology of Willapa Bay.
Projects:
1. Willapa Bay habitat inventory; aerial overflights and ground-truthing to assess the *Spartina* and other habitat acreage; create a GIS database. 1993-1994.
2. Effects of introduced *Spartina alterniflora* on native bivalve populations in Willapa Bay; 1992-1993.

Mr. Steve L. Foss
Washington State Department of Agriculture
Pesticide Management Division
P.O. Box 42589
Olympia, WA 98504-2589
Work phone: **(206) 902-2049**
FAX: (206) 902-2093
Pesticide Specialist; Agriculture, education.
Projects:
1. Education: *Spartina* - Threat to Washington's saltwater habitat.

Mr. James A. Hidy
U.S. Fish and Wildlife Service
Willapa National Wildlife Refuge & Satellites
HC 01 Box 910
Ilwaco, WA 98624-9707
Work phone: **(206) 484-3482**
FAX: (206) 484-3109
Refuge manager; *Spartina* control.
Projects:
1. Control of *Spartina alterniflora*; possible elimination of it from areas of Willapa Bay. Mechanical control, 1989.
2. Fish use of cordgrass, 1990.
3. Use of glyphosate on *Spartina*, efficacy, impacts to non-target organisms, fate.

Dr. Thomas F. Mumford
Washington Department of Natural Resources, Division of Aquatic Lands
P.O. Box 47028
Olympia, WA 98504-7028
Work phone: **(206) 902-1079**
FAX: (206) 902-1786
Section Head, Environmental Information; algology and geographical information systems.
Projects:
1. Characterization of nearshore habitats in Puget Sound, WA. 1990. Mapping includes *Spartina spp.* marshes.
2. Programmatic EIS for nations emergent aquatic plants in Washington; 1991, for management of *Spartina* and loosestrife.
3. Inventory of Spartina spp. in Washington, 1991-92, using ground and aerial surveys.
4. Environmental impacts of different control methods for controlling the spread of *Spartina spp.* in Washington. 1991-92.

Ms. Sharon R. Riggs
Washington State Department of Ecology
Padilla Bay National Estuarine Research Reserve
1043 Bayview-Edison Road
Mount Vernon, WA 98273
Work phone: **(206) 428-1558**
FAX: (206) 428-1491
Program Coordinator; administration and estuarine ecological research.
Projects:
1. Distribution of *Spartina alterniflora* in Padilla Bay, Wash., 1991, Pad. Bay Ntl. Est. Res. Reserve Tech. Rpt. No. 3.
2. Net aerial primary productivity of *S. alterniflora* in Pad. Bay, Wash., 1992-1993. Used a non-destructive method to measure net aerial primary productivity over a year.

Ms. Kathleen A. Sayce
Shoalwater Botanical
P.O. Box 91
Nahcotta, WA 98637
Work phone: **(206) 665-5292**
FAX: (206) 665-5292
Botanist; salt marshes in estuaries.
Projects:
1. A study of *Spartina alterniflora* in Willapa Bay, WA. USFWS study 1987-88.
(more)

2. Survey of *S. alterniflora* in Willapa Bay includes annual seed set and vertical placement in the intertidal zone, 1988- .
3. Monitoring of diatoms in Willapa Bay, planktonic, benthic and epiphytic.

Mr. Charles A. Simenstad
University of Washington
Wetlands Ecosystem Team
Fisheries Research Institute, WH-10
Seattle, WA 98195
Work phone: **(206) 543-7185**
FAX: (206) 685-7471
Marine Biologist; Ecosystems, wetlands, fisheries biology.
Projects:
Studies of the invertebrates in Willapa Bay.

Mr. Curtis D. Tanner
U.S. Fish and Wildlife Service
3704 Griffin Ln. SE, Suite 102
Olympia, WA 98501-2192
Work phone: **(206) 753-9440**
FAX: (206) 753-9008
Wildlife biologist; wetlands.
Projects:
Coastal America intertidal habitat restoration projects in the Duwamish River estuary, Seattle, WA; (7/1//90). Projects were designed to 1) increase the amount and quality of resource base in the Duwamish River estuary; 2) investigate novel approaches to habitat restoration/enhancement in an urban environment; and 3) develop an inter-agency approach to non-compensatory habitat restoration.

Dr. Ronald M. Thom
Battelle Marine Sciences Laboratory
Marine & Wetland Resources Group
1529 W. Sequim Bay Road
Sequim, WA 98382
Work phone: **(206) 681-3657**
FAX: (206) 681-3681
Group leader; estuarine and marine plant ecology; wetlands, coastal systems; consultant.
Projects:
1. Sea level rise effects on coastal marshes. March 1991.
2. Effects of graveling beaches on nutrient flux rate and benthic primary productivity. March 1991.
3. Effects of oil on kelp. June 1992.
4. *Spartina alterniflora* ecology in Willapa Bay; project to start July, 1993.

Mr. Steve Wirth
Newstart Nursery
565 Juniper Beach Road
Camano Island, WA 98292
Work phone: **(206) 629-3751**
FAX: -
Manager/owner of a nursery; also is licensed to apply herbicides.
Projects:
1. Pilot study to use Rodeo to eradicate *Spartina townsendi* at Livingston Bay Park; 1992.

NMFS and COP Salt marsh Restoration Directory

Dr. Geoffrey A. Matthews of Dr. Thomas J. Minello
NMFS Laboratory, 4700 Ave. U, Galveston, TX 77551
(409) 766-3500 or FAX 766-3508

Dr. Mr. Mrs. Ms. _____
First MI Last

Organization: _____

Department: _____

Address: _____
Street

_____ _____ _____
City State Zipcode

Telephone: ( ) _____ FAX: _____

Internet: _____ Email: _____

Job- Function: _____

Specialty: _____

Computer: _____

Brief description of your recent/current projects. (What, When & Where)
Project 1.

_____

_____

Project 2.

_____

_____

Project 3.

_____

_____

INDEX of PARTICIPANTS

Adams, L. 7
Adams, J. 34
Adamson 28
Albano 22
Alexander 4
Allen, H. 24
Allen, S. 26
Ammann 26
Anderson 5
Armstrong 39
Aurelia 4
Barber 7
Bartoldus 19
Bates 7
Beeman 7
Beever 7
Belaire 34
Bellis 32
Bennett 7
Bigford 22
Biggar 8
Bildstein 31
Bissett 8
Blair 8
Blama 19
Blood 32
Blum 39
Boatman 13
Bodin 13
Boesch 20
Bolotte 13
Bonner 31
Bontje 28
Bordelon 13
Bordes 13
Briggs 20
Brockmeyer 8
Broome 28
Broussard, B. 13
Broussard, D. 14
Brunori 20
Bryan 22
Bulthuis 40
Bunch 32
Bundy 8
Burdett 8
Burdick 26
Bybee 2
Cahoon 14
Cammen 20
Carangelo 34
Carlson, D. 8
Carlson, L. 22
Carr 22
Cash 8
Christian 32
Clairain 24
Clark 5
Clarke 25
Clements 34
Cordy 8
Craft 29
Crewz 9
Cuevas 25
Currin 29
Daehler 2
Davis 9
Day 14
De Bouno 26
Demgen 2
Derstine 14
Deshaies 22
Devlin 14
DiFiori 2
Dore 20
Dougherty 31
Dowhan 31
Dowling 1
Drylie 9
Dubinski 31
Dumbauld 40
Dunn 34
DuPuy 9
Earhart 20
Edstrom 27
Edwards 14
Eisenhardt 27
Eleuterius 25
Emmett 30
Erwin 20
Esquivel 34
Falcone 23
Fefer 19
Filip 20
Fine 14
Fink 2
Fonseca 29
Foss 40
Friedemann 9
Fultz 12
Furness 29
Gagliano 15
Gallagher 6
Gann 9
Gann-Matzen 9
Garbisch 20
Gavutis 23
Getchell 39
Gilio 9
Gilmore 10
Glass 35
Goldberg 35
Goldsmith 23
Golet 32
Goodger 21
Hamer 27
Hanes 10
Hardisky 31
Hargis 15
Harrington 35
Hartman 15
Hawes 15
Heath 1
Heller 4
Helm 26
Henningsen 10
Hensel 33
Herke 15
Hidy 40
Hobson 32
Hoeger 28
Hoese 15
Hoffman 2
Hook 15
Houston 28
Huggett 29
Johnson 15
Jones 16
Josselyn 3
Kahn 35
Karafel 10
Kearney 21
Kent 4
Kenworthy 29
Kepner 10
Kerfoot 23
Kilgore 20

Koepfler 33
Konikoff 16
Kosier 10
Kraus 21
Kruczynski 10
Landin 25
Lanier 13
LaSalle 25
Latch 10
Lazarene 35
Lelito 23
Levin 30
Lewis 10
Lloyd-Reilley 35
Logan 10
Lomax 27
Lowe 25
Luther 6
Lyman 23
MacLean 21
Mager 11
Mantzaris 23
Marcantel 16
Marcus 23
Marshall 30
Martin 24
Materne 16
Mathies 16
Matsil 28
Matthews 35
Mauney 36
Maurmeyer 6
McCandless 21
McCartney 31
McCorkle 6
McHugh 24
McNease 16
Medina 36
Melton 11
Menard 16
Mendelssohn 16
Meyer 30
Middleton 1
Miller 27
Minello 36
Moore, R. 33
Moore, S. 33
Moore, D. 36
Morgan 39
Morris 33
Mullins 36
Mumford 40
Murphy 17
Nailon 36
Nichols 17
Nickerson 24
Nicolau 37
Nidecker 17
Niering 4
Northrup 37
Novitzki 30
O'Neil 26
Ornes 33
Owen 17
Patten 11
Paul 21
Perry 17
Pezeshki 17
Phillipp 6
Popp 4
Potter 4
Prann 27
Proffitt 17
Purcell 33
Rafferty 18
Ramsey 18
Reddoch 18
Redmond 11
Reed, B. 18
Reed, D. 18
Reeder 11
Reily 11
Renner 13
Reubsamen 18
Riggs 40
Roach 1
Robinson 11
Rozas 37
Rozsa 5
Sayce 40
Scheidt 11
Schleifstein 18
Schroer 11
Schucet 31
Seelinger 22
Seidensticker 37
Seliskar 6
Seneca 30
Shea 32
Shead 37
Shisler 28
Simenstad 41
Simon 18
Skrabal 6
Slayback 5
Smart 37
Smith, J. 3
Smith, D. 37
Sparrow 24
Spell 18
Spicher 3
Steinke 5
Stevenson 22
Steyer 19
Stout 1
Strong 3
Sutherlin 38
Swafford 38
Talbot 19
Taniguchi 39
Tanner 41
Taylor 24
Teal 24
Terwilliger 12
Thayer 30
Thom 41
Thornhill 1
Thunhorst 30
Tito 12
Tomasko 12
Trimm 38
Tullos 19
Tunnell 38
Twilley 19
Utermohle 22
Van Dolah 33
Vega 38
Vittor 2
Waring 26
Warren 5
Webb 38
Werner 38
Wesley 12
White 12
Whitman 12
Williams 3
Wirth 41
Witman 7
Yuill 39
Zaffke 12
Zedler 3
Zentner 3
Zewinski 32
Zimmerman 39
Zyski 12

Other Titles in the Decision Analysis Series

No. 1. Able, Kenneth W. and Susan C. Kaiser. 1994 Synthesis of Summer Flounder Habitat Parameters.

NOAA COASTAL SERVICES CENTER LIBRARY
3 6668 00003 7103