



DEPARTMENT OF THE ARMY  
MOBILE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 2288  
MOBILE, AL 36628-0001

CESAM-RD-A  
PUBLIC NOTICE NO. SAM-2014-01046-LET

June 19, 2015

JOINT PUBLIC NOTICE  
U.S. ARMY CORPS OF ENGINEERS AND  
STATE OF ALABAMA  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**REQUEST FOR AUTHORIZATION TO DREDGE AND PLACE FILL IN WATERS OF  
THE UNITED STATES TO CONSTRUCT A SHORELINE STABILIZATION  
BREAKWATER AND CREATE 4 ACRES OF TIDAL MARSH AT THE NORTH TIP OF  
MON LOUIS ISLAND, FOWL RIVER, THEODORE, MOBILE COUNTY, ALABAMA**

TO WHOM IT MAY CONCERN: This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403). Please communicate this information to interested parties.

APPLICANT: **Mobile Bay National Estuary Program**  
**Attention: Ms. Roberta Swann**  
**118 North Royal Street, Suite 601**  
**Mobile, Alabama 36602**

AGENT: **Thompson Engineering, Inc.**  
**Attention: Mr. John McFadyen**  
**2970 Cottage Hill Road, Suite 190**  
**Mobile, Alabama 36606**

WATERWAY/LOCATION: **In East Fowl River at the convergence of Fowl River and Mobile Bay, 11745 Old Ship Yard Road, Section 33, Township 7 South, Range 1 West, Theodore, Mobile County, Alabama; Latitude 30°26'54.5" North and Longitude 88°06'25.2" West.**

PROJECT PURPOSE: The "Basic Project Purpose" is the restoration and protection of aquatic habitat (tidal marsh) and a limited restoration of navigation channel dimensions. For the purposes of the Clean Water Act Section 404(b)(1) Guidelines this basic purpose defines the project as a water-dependent activity (an activity requiring access or proximity to or siting within a special aquatic site to fulfill its basic purpose). The "Overall Project Purpose" is: (1) to stabilize the eroding shoreline and protect an existing 8-acre tidal marsh and create 4 acres of new tidal marsh along the western shore of Mobile Bay at the mouth of East Fowl River; and (2) limited maintenance dredging of the Fowl River Navigation Project.

The project is intended to provide an initial step toward the restoration of natural resources injured by the Deepwater Horizon oil spill and restore the significantly shoaled Fowl River Navigation Channel to its Congressionally-authorized project dimensions given that federal funding to maintain the channel is currently unavailable and likely to remain unavailable for the foreseeable future.

**PROPOSED WORK:** The applicant received grant funding through the National Fish and Wildlife Foundation-Gulf Environmental Benefit Fund (NFWF-GEBF) to undertake a Fowl River Watershed Restoration project, which among other items includes: (1) stabilization of the tip of Mon Louis Island using “living shorelines” type technologies and (2) expanding the existing acreage of marsh on the north tip of Mon Louis Island, both of which require a Department of the Army permit prior to implementation. In order to implement item (2) it was determined the viable option that would achieve the objectives set out in the NFWF-GEBF grant and also benefit the surrounding Fowl River community would be to dredge sediment from the existing, approved U.S. Army Corps of Engineers’ (USACE) Fowl River open water disposal area to construct the base for the marsh expansion, then use the same equipment to dredge the Fowl River navigation channel placing the dredged material in the borrow area depression created within the approved open water disposal area. Supplemental funding for the channel maintenance-dredging portion of this plan has been approved by the State of Alabama through the Deepwater Horizon Incident (DWHI) Grant Application program.

The shoreline stabilization, marsh creation and navigation channel maintenance would include the following work:

**Riprap Breakwater:** The applicant would construct an approximately 1,420-foot-long continuous riprap dike breakwater along the Mobile Bay side of the northern tip of Mon Louis Island to stabilize the shoreline and provide protection for the existing and proposed tidal marsh at the north tip of Mon Louis Island. This breakwater is intended to provide shoreline stabilization and protection from chronic, routine impacts within the normal wave climate, not protection from catastrophic weather or storm surge events. Construction of the breakwater would require the discharge of approximately 4,000 cubic yards of riprap into waterbottoms of Mobile Bay. The proposed breakwater construction techniques would allow for an estimated 1-foot of settlement, with the breakwater initially being constructed to a crest elevation of +4.1 feet North American Vertical Datum (NAVD) to achieve a final design crest elevation of +3.1 feet NAVD. Additionally, construction of the proposed breakwater would require the mechanical dredging of approximately 10,000 cubic yards of silty-sand water bottom material to install a 50-foot-wide by 1,370-foot-long by 6-foot-deep temporary construction access

channel on the inside (west side) of the breakwater alignment to allow for access and staging of construction equipment and materials. The 10,000 cubic yards of material excavated from the construction access channel would be temporarily stockpiled along the inside of the channel (between the proposed breakwater alignment and the existing shoreline) and later used to back fill the channel, which would become part of the marsh creation area.

**Marsh Restoration:** Approximately 40,000 cubic yards of predominately silty-sands with some clays would be hydraulically dredged from an approximately 600-foot by 900-foot area within the existing, approved USACE Fowl River open water dredged material disposal area in Mobile Bay southeast from the mouth of East Fowl River directly into the proposed tidal marsh construction area in Mobile Bay. Up to 3 feet of sediment would be dredged from across the borrow area resulting in a borrow depression with a depth up to -8.5 feet mean lower low water (MLLW). Factoring in a 50 percent “loss factor” as a result of dewatering, dredging of approximately 40,000 cubic yards of material will be required to provide the 25,000 cubic yards of in-place fill required for the proposed 4 acres of marsh construction. The proposed quantity of fill material would provide an initial elevation of approximately +3.0 feet NAVD for the marsh area allowing for 1-foot of consolidation in order to achieve a post-construction nominal elevation of +2.0 feet NAVD. After a sufficient period of time has elapsed for consolidation of the sediment (estimated at 3 to 6 months), mechanical equipment will be used to grade the deposited fill to final target elevations suitable for wetland plantings and connections with existing tidal creeks to the west would be constructed to allow for tidal flushing of the newly-created marsh. Wetland plantings across the marsh area would include approximately 1.6 acres of *Juncus roemerianus*, 1.4 acres of *Spartina alterniflora*, 0.3 acre of *Spartina patens*, and 0.5 acre of *Phragmites australis*. The tidal creek configurations would occupy approximately 0.2 acre of the marsh area and will be further evaluated after the grading to determine if revisions to the tidal creek layout are necessary during the final design prior to implementation.

The overall project would result in the discharge of fill material into approximately 4.7 acres (204,732 square feet) of water bottoms to construct the continuous riprap dike breakwater and tidal marsh.

**Navigation Channel Maintenance:** The applicant would conduct a limited maintenance dredging of approximately 11,000 linear feet of the Fowl River Navigation Project from the Alabama Highway 193 Bridge (Station 28+00) east to the channel entrance (Station 138+15). Up to 350,000 cubic yards of silty sand would need to be dredged to fully restore authorized project dimensions and

provide advanced maintenance, however the final quantity of material dredged from the channel will depend on budgetary considerations. The material maintenance dredged from the Fowl River channel would be placed in the established Fowl River open water disposal area in a manner that will mitigate any hydrographic depressions created during the dredging to obtain the fill for the 4-acre marsh creation. The channel maintenance dredging will be performed to the Congressionally approved USACE alignment and dimension specifications for the Fowl River Navigation Project (100 feet wide and depth -8 feet MLLW with -2 feet allowable overdepth dredge).

During construction, signs and/or buoys will be deployed to warn navigational interests of the on-going construction hazards and other potential dangers. Dredging equipment and pipelines will be marked and lighted in accordance with U.S. Coast Guard (USCG) Navigational Rules and Notice to Mariners will be provided for publication and broadcast by the USCG and USACE prior to commencement of work. Following construction, aids to navigation will be installed and maintained as determined appropriate.

**AVOIDANCE AND MINIMIZATION:** The applicant has stated in their application that potentially adverse impacts to waters of the United States associated with construction of the project have been minimized through the site selection and project design processes, such as beneficial re-use of dredged material from an existing dredged material disposal area, placing the temporary construction access channel within the project footprint such that it will be filled back in as part of project construction, and filling in the borrow area depression with dredged material from maintenance of the Fowl River navigation channel.

**MITIGATION:** Compensatory mitigation for impacts to waterbottoms is not proposed as the purpose of the project would be to provide restoration and protection of tidal marsh and other natural resources and improved habitat for aquatic species injured by the Deepwater Horizon oil spill.

**WATER QUALITY/COASTAL ZONE MANAGEMENT:** The applicant has applied for certification from the State of Alabama in accordance with Section 401(a)(1) of the Clean Water Act and for Coastal Zone Management (CZM) consistency certification in accordance with the Alabama Coastal Zone Management Program. Upon completion of the required advertising and public comment review, a determination relative to water quality certification and CZM consistency will be made by the Alabama Department of Environmental Management (ADEM).

**HISTORIC PROPERTIES:** In accordance with Section 106 of the National Historic Preservation Act and Appendix C of 33 CFR 325, the undertaking defined in this notice

is being considered for the potential to affect cultural and historic properties within the permit area. In accordance with Appendix C of 33 CFR 325, the USACE has determined that the permit area consists of the entire undertaking in waters of the United States, which includes the footprint of the Fowl River channel dredge area, the portion of the existing USACE open water disposal area from which marsh construction sediment will be obtained and into which the dredged channel material will be disposed, the footprint of the continuous riprap dike breakwater, the temporary construction access channel, the tidal marsh construction area, and the directly associated staging and work areas. The National Register of Historic Places will be consulted for properties listed in or eligible for the National Register, which are known to exist and would be affected by the proposed work. We are seeking comment from the State Historic Preservation Officer regarding the existence or the potential for existence of significant cultural and historic properties within the permit area. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the State Historic Preservation Officer and the U.S. Department of the Interior, National Park Service and Division of Archeological Services.

**ESSENTIAL FISH HABITAT:** This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The project includes estuarine substrate and water column utilized by various life stages of various marine species. Our initial determination is that the proposed action would not adversely affect EFH or federally managed fisheries but would likely provide an overall benefit to Federally managed fisheries species. Our final determination relative to project impacts and the need for mitigative measures is subject to review by and coordination with the National Marine Fisheries Service.

**ENDANGERED SPECIES:** Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened Wildlife and Plants indicate that the proposed activity may affect but is not likely to adversely affect the following listed endangered or threatened species with the potential to exist within the permit area: Gulf Sturgeon, Florida Manatee, Alabama Red-belly turtle, Loggerhead sea turtle, Kemp's Ridley sea turtle, and Green sea turtle. Also, based on the nature of the permit area being predominantly estuarine waterways, tidal marsh, and eroded sandy bay shoreline, we have preliminarily determined that the proposed activity will have no effect on the following listed species with the potential to exist within the permit area: Gopher tortoise, Black pine snake, Eastern indigo snake, and Wood stork. Additionally, there is no designated critical habitat within the permit area. This determination is being coordinated with the U.S. Fish and Wildlife Service (USFWS) via this Public Notice.

Further coordination with the USFWS will be performed as determined to be appropriate.

**COMMENTS:** This public notice is being distributed to all known interested persons and serves to solicit comments from the public, Federal, State, and local agencies and officials, Indian Tribes, and other interested parties, in order to assist in developing facts on which a decision by the USACE can be based. The USACE is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing.

For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing, setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources.

The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and in general, the needs and welfare of the people. Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will also include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

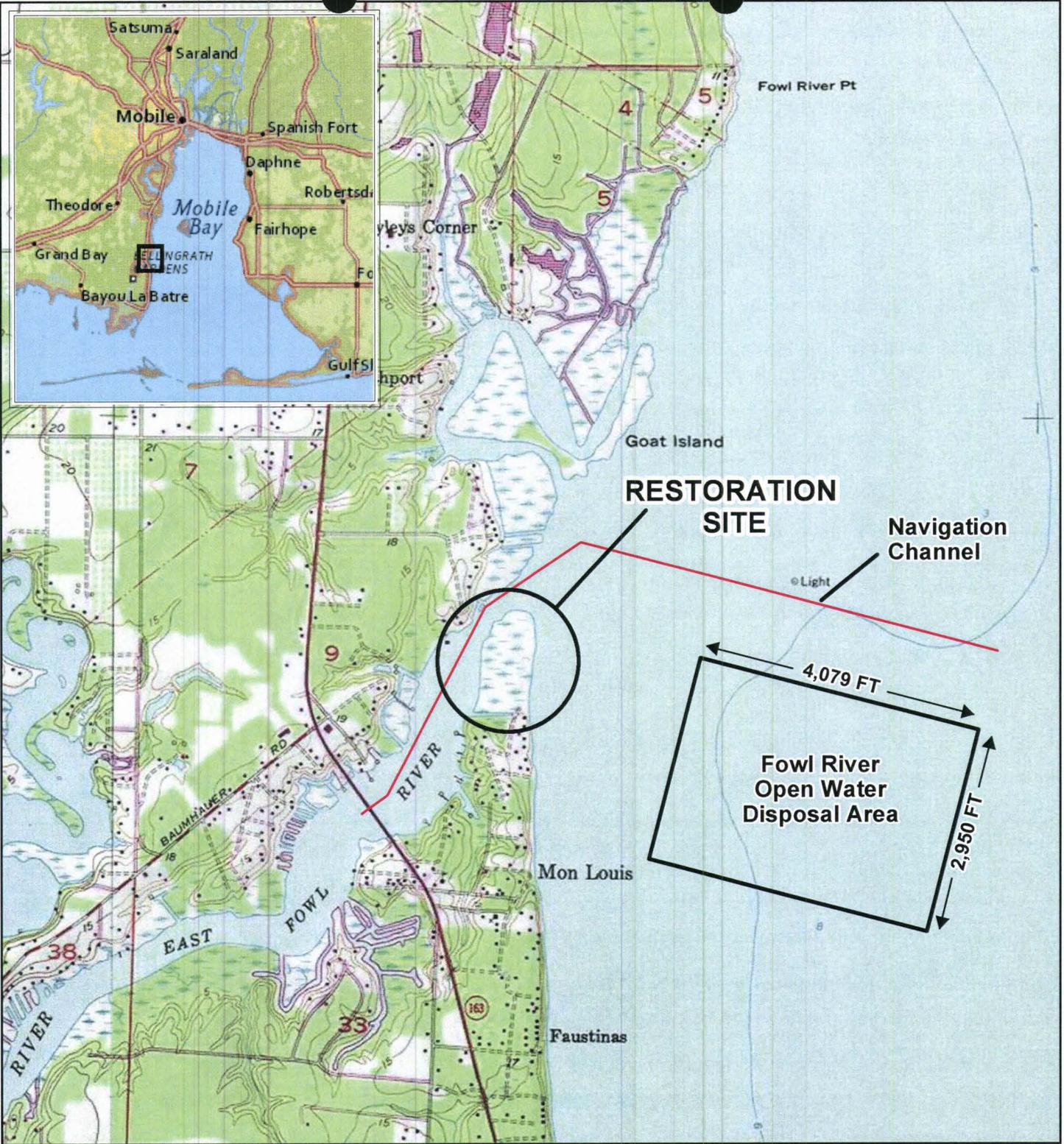
Correspondence concerning this notice should refer to Public Notice Number **SAM-2014-01046-LET** and should be directed to USACE, Mobile District, Regulatory Division, Attention: Ms. Leslie E. Turney, Post Office Box 2288, Mobile, Alabama 36628-0001, with a copy furnished to the ADEM, Field Office Mobile – Coastal Section, 3664 Dauphin Street, Suite B, Mobile, Alabama 36608.

**All Comments should be received no later than 30 days from the date of this Public Notice.** If you have any questions concerning this publication, you may contact the project manager at (251) 694-3873 or e-mail at [leslie.e.turney@usace.army.mil](mailto:leslie.e.turney@usace.army.mil). Please refer to the above Public Notice Number **SAM-2014-01046-LET**.

For additional information about our Regulatory Program, please visit our web site at [www.sam.usace.army.mil/Missions/Regulatory.aspx](http://www.sam.usace.army.mil/Missions/Regulatory.aspx).

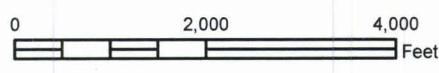
MOBILE DISTRICT  
U.S. Army Corps of Engineers

Enclosures



National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC - Mobile Quadrangle

1:24,000



1 inch = 2,000 feet



MON LOUIS ISLAND  
SHORELINE RESTORATION  
MOBILE COUNTY, ALABAMA



FIGURE 1  
PROJECT SITE  
VICINITY MAP

PROJECT NO.:  
13-1101-0242

DATE:  
JUNE 2015

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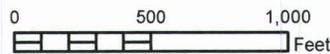
0113-1101-0242 DIS-AMBNEP\_Mon\_Louis\_Island\_S.OffshoreDrawingsMXD\FIG1\_PERMITTING\_PT(8x11).mxd



**RESTORATION  
SITE**

City of Mobile 2010 Imagery - 1Ft Resolution.

1:8,400



1 inch = 700 feet



MON LOUIS ISLAND  
SHORELINE RESTORATION  
MOBILE COUNTY, ALABAMA



**FIGURE 2  
RESTORATION SITE  
AERIAL PHOTOGRAPH**

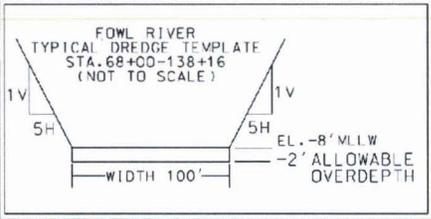
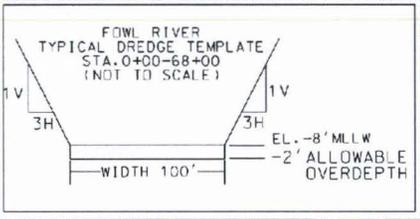
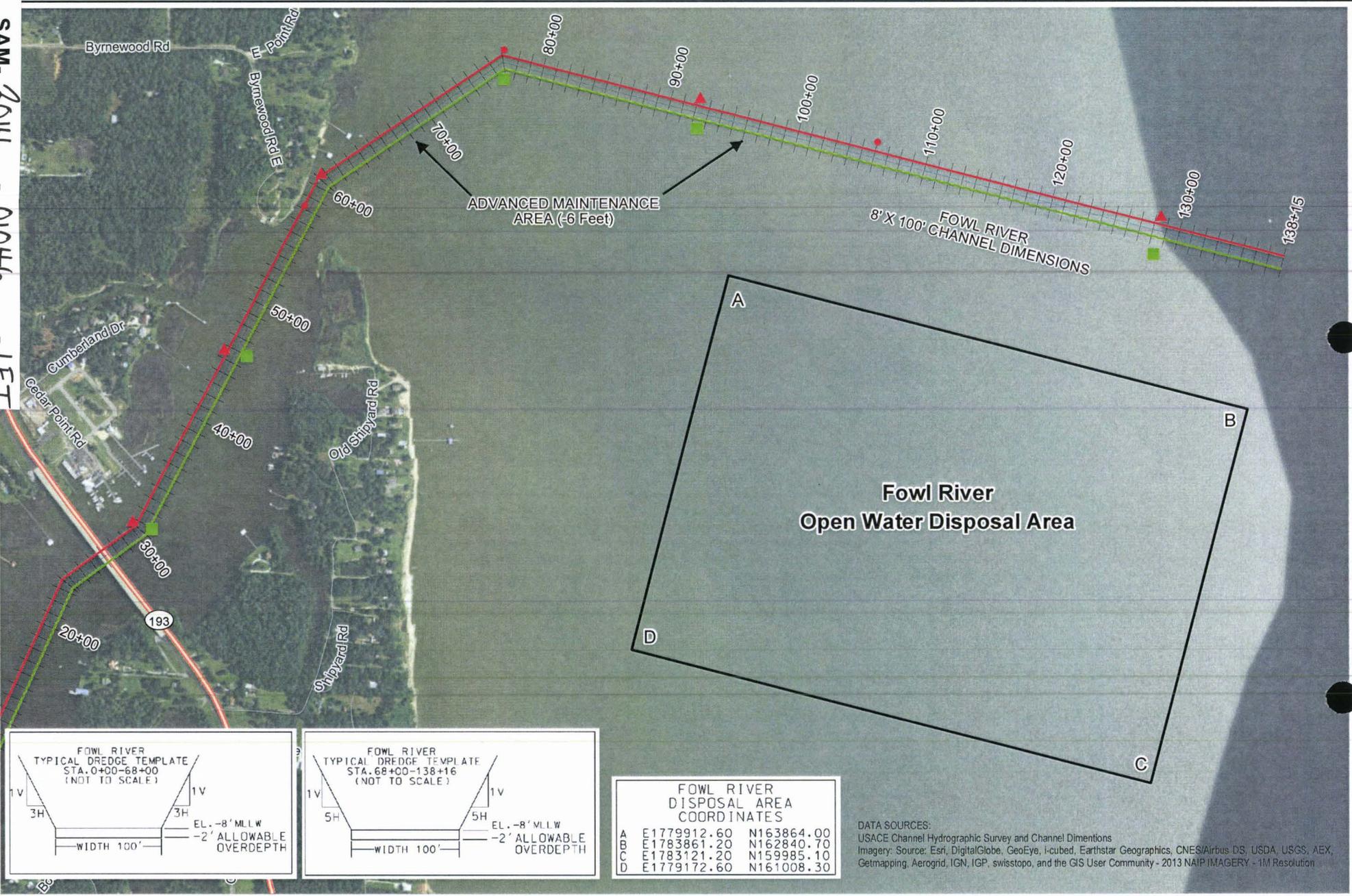
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1110113-1101-0242 DISL-MBNEP Mon Louis Island S. O'Hearn Drawings\MXD\FIG2\_EMERY\_PT(8x11).mxd

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FOWL RIVER DISPOSAL AREA COORDINATES

A	E 1779912.60	N163864.00
B	E 1783861.20	N162840.70
C	E 1783121.20	N159985.10
D	E 1779172.60	N161008.30

DATA SOURCES:  
 USACE Channel Hydrographic Survey and Channel Dimensions  
 Imagery: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community - 2013 NAIP IMAGERY - 1M Resolution



MON LOUIS ISLAND  
 SHORELINE RESTORATION  
 MOBILE COUNTY, ALABAMA

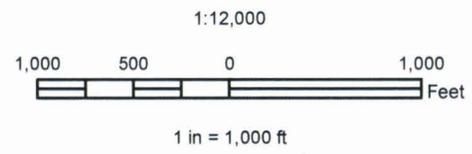
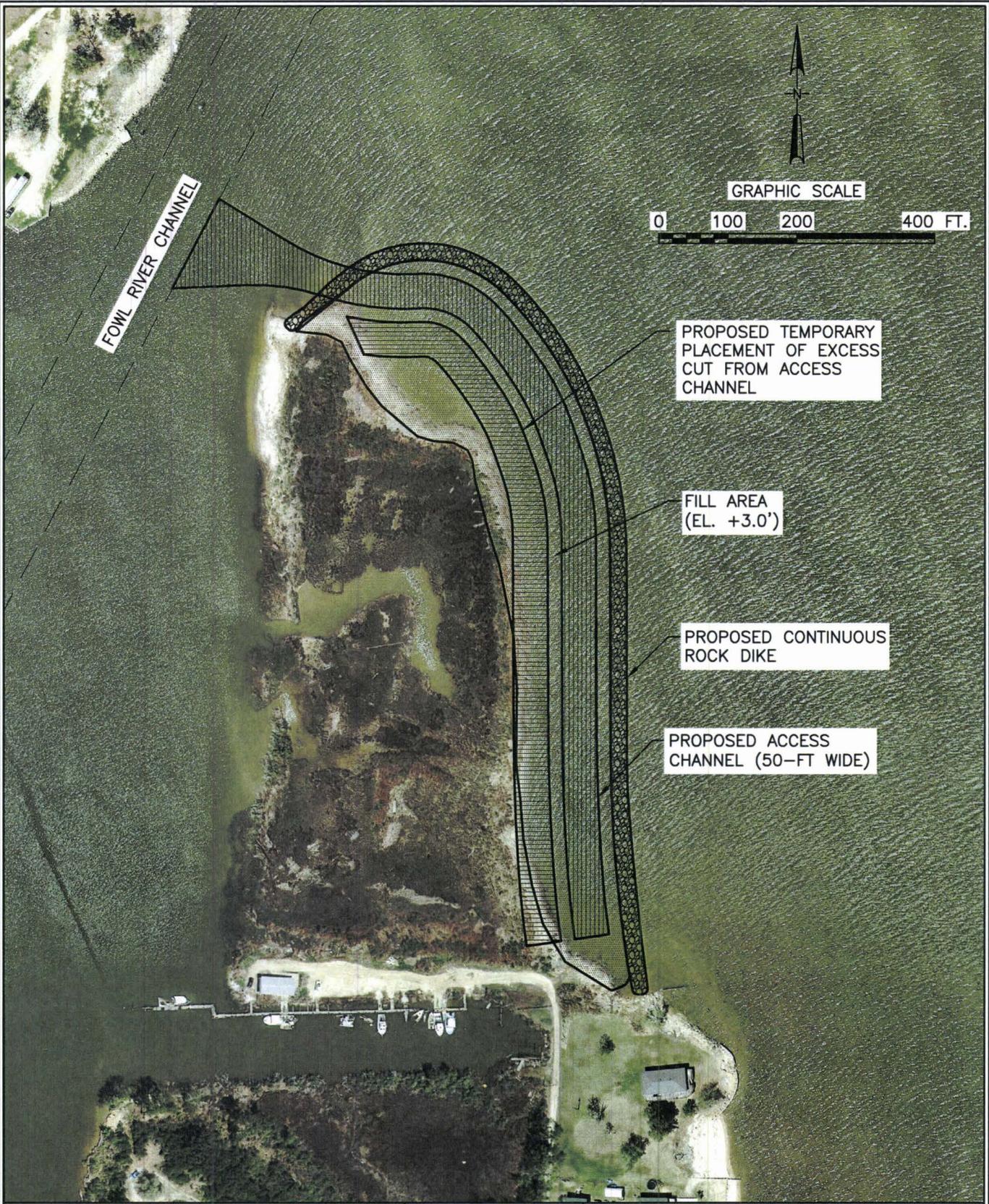


FIGURE 3  
 FOWL RIVER CHANNEL  
 PROJECT MAP

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P:\2013\1101013-1101-0242 DISL-MBNEP Mon Louis Island S. O'Hearn\Drawings\MOX\FIG3\_EMERY\_PT(8x11).mxd



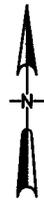
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 MOBILE COUNTY, ALABAMA



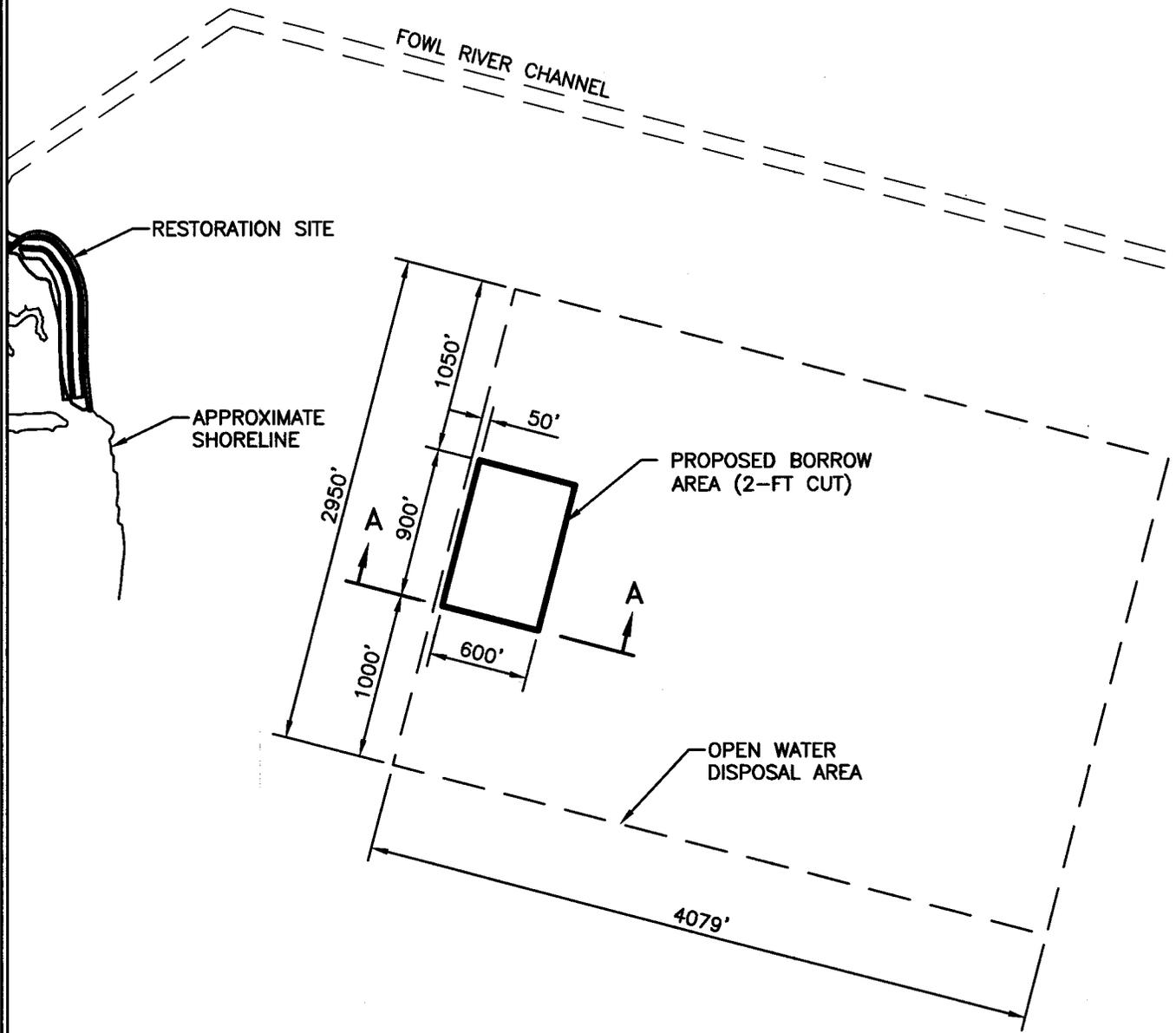
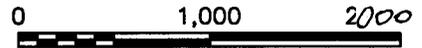
FIGURE 4  
 RESTORATION PROJECT PLAN

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GRAPHIC SCALE



MON LOUIS ISLAND  
SHORELINE RESTORATION  
MOBILE COUNTY, ALABAMA



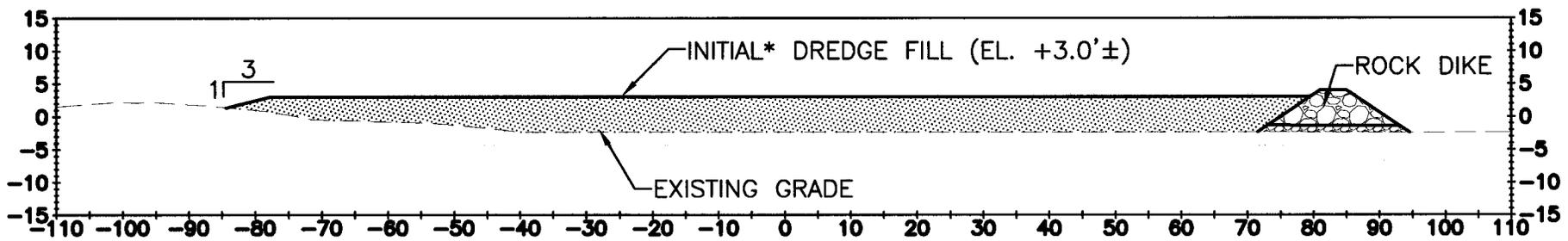
FIGURE 5  
DISPOSAL AREA BORROW PLAN

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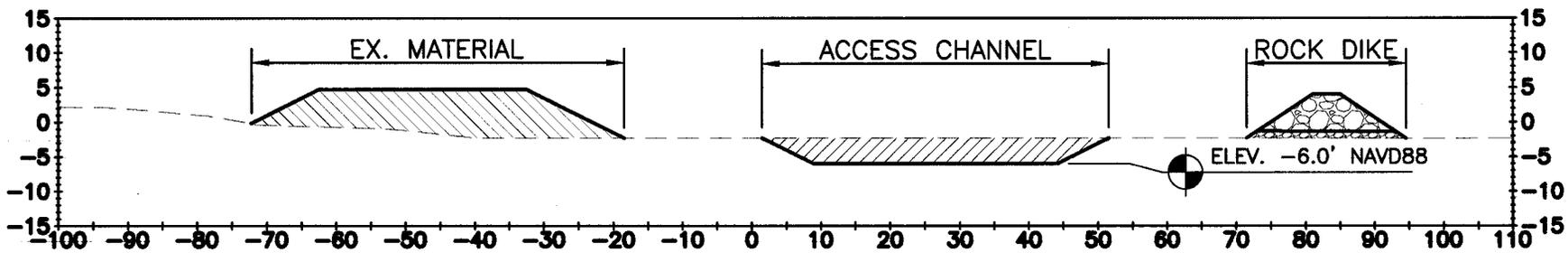
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**PROJECT CROSS SECTION, TYP.**

\* BEFORE CONSOLIDATION. POST-CONSOLIDATION FILL ELEVATION ESTIMATED AT +2.0' NAVD99 (NOMINAL).



**ACCESS CHANNEL CROSS SECTION, TYP.**

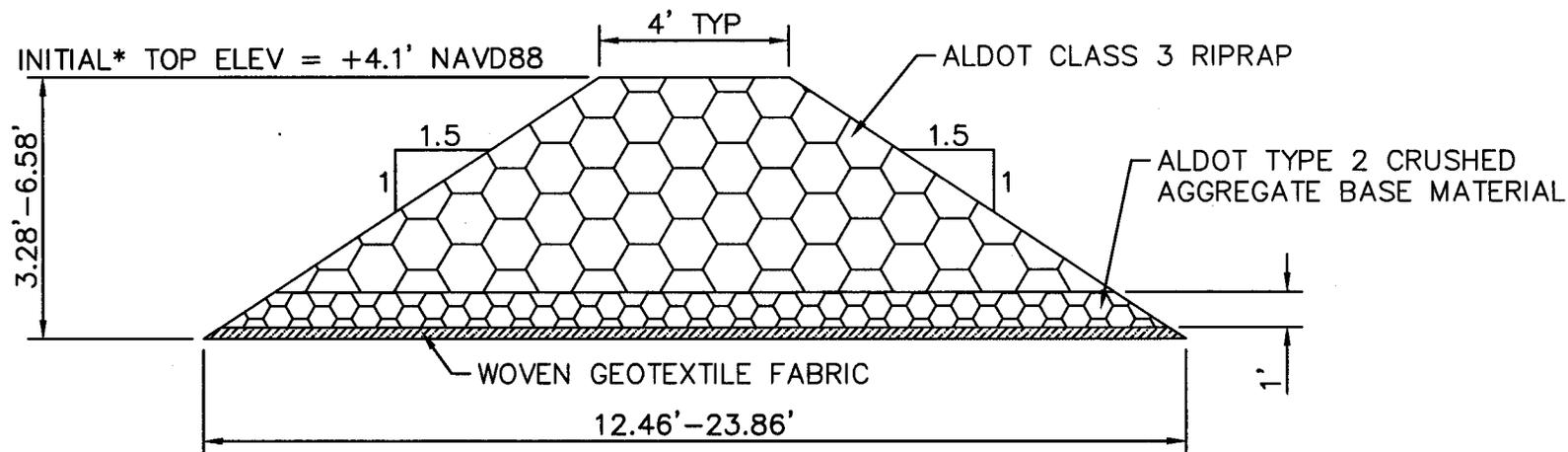
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 MOBILE COUNTY, ALABAMA



FIGURE 6  
 PROJECT CROSS SECTION (TYPICAL)

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TYPICAL CONTINUOUS ROCK DIKE CROSS-SECTION

1" = 4'

\* BEFORE SETTLEMENT. ESTIMATED CREST ELEVATION  
AFTER SETTLEMENT = +3.1' NAVD88.

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SHORELINE RESTORATION  
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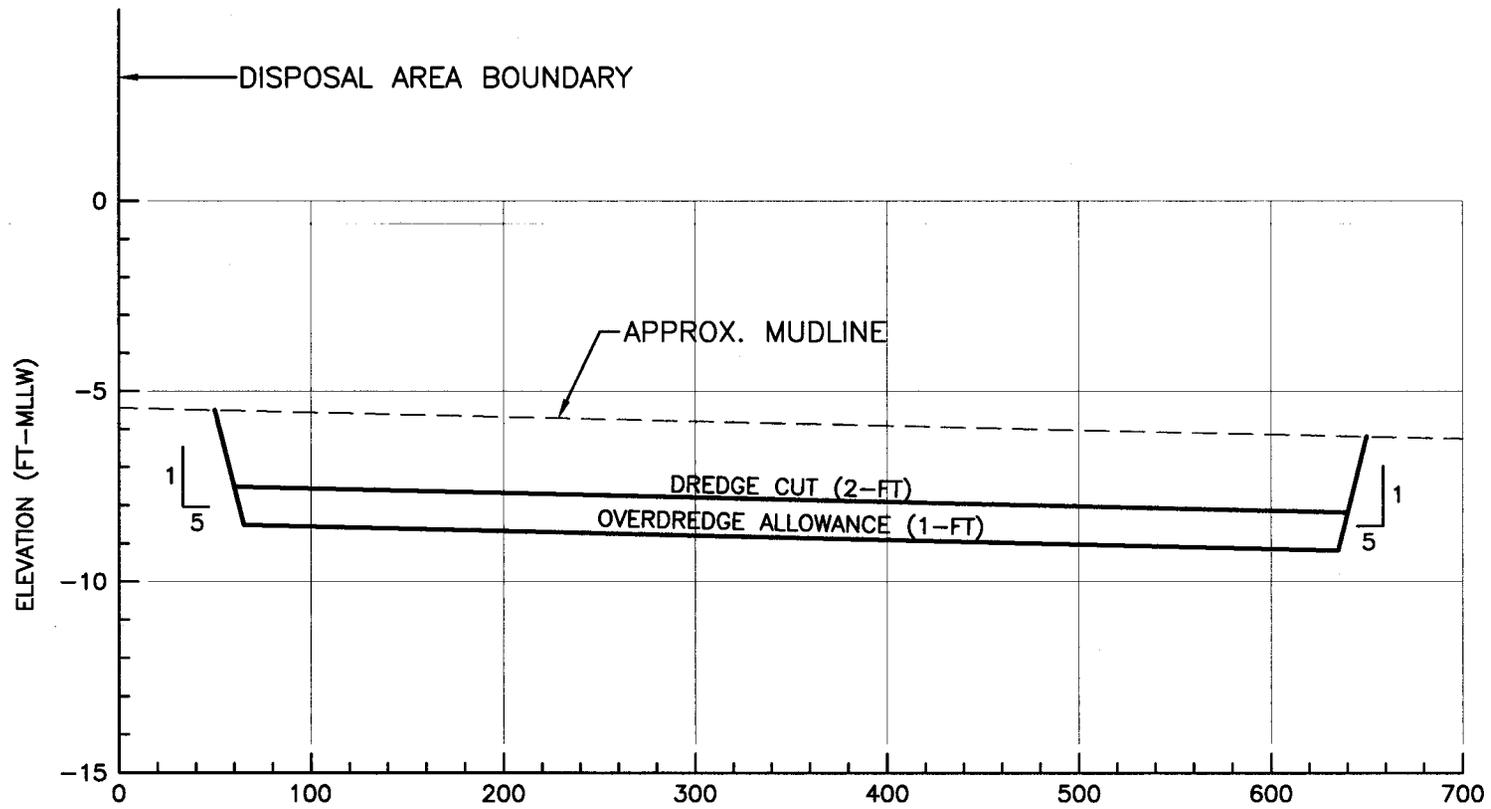


FIGURE 7  
DIKE CROSS SECTION (TYPICAL)

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BORROW AREA CROSS SECTION "A-A"

1" = 100'

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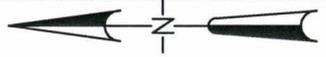
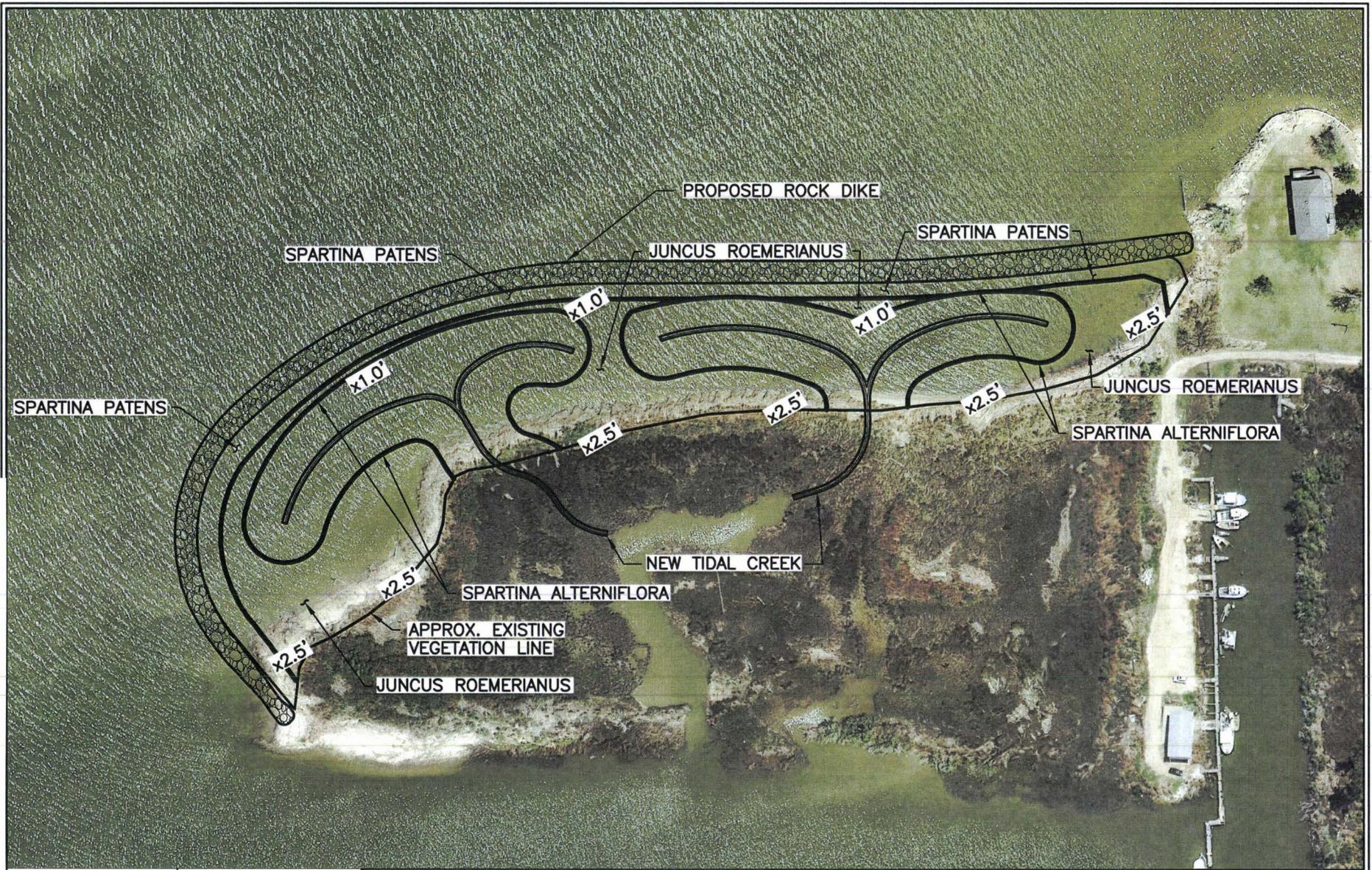


FIGURE 8  
BORROW AREA CROSS SECTION (TYPICAL)

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GRAPHIC SCALE



MON LOUIS ISLAND  
SHORELINE RESTORATION  
MOBILE COUNTY, ALABAMA

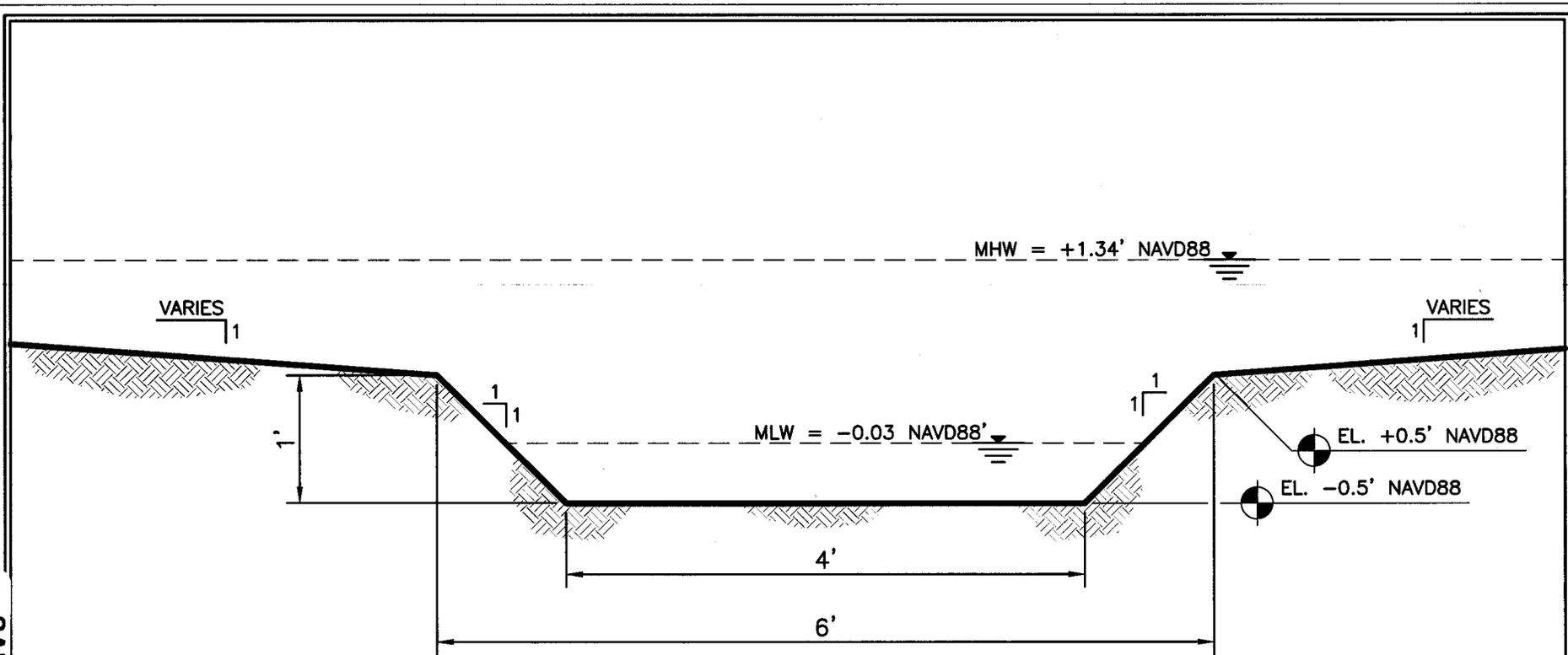


thompson  
ENGINEERING

FIGURE 9  
MARSH PLANTING PLAN

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MON LOUIS ISLAND  
SHORELINE RESTORATION  
MOBILE COUNTY, ALABAMA

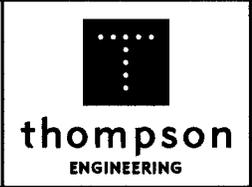


FIGURE 10  
TIDAL CREEK CROSS SECTION (TYPICAL)

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# WETLAND PLANTING PLAN

## 1. Plant Selection

The principal marsh grass species that will be planted in the 4.0-acre salt marsh restoration site at Mon Louis Island are black needlerush (*Juncus roemerianus*) and smooth cordgrass (*Spartina alterniflora*). These two species comprise approximately 60% of the vegetative cover that occurs on the west side of the peninsula that lies on the south side of the entrance to Fowl River; these taxa have been the primary plants used in other successful salt marsh creation/restoration projects. Approximately 0.5 acre of this site will be planted in cane (*Phragmites australis*); these plantings will occur in a roughly 20-ft wide zone formed on the inside edge of the rock berm, where the marsh elevation will be near +2.5 ft. *Phragmites* provides good protection against erosion because of its dense root mat and heavy growth.

Any areas on the restored marsh where the ground elevation is between +2.0 and +2.5 ft. above mean tide level after the dredged material has stabilized will be planted with saltmeadow cordgrass (*Spartina patens*), which is another indigenous marsh species that is an excellent soil stabilizer and is found in the adjacent brackish marsh.

Approximate acreages of the four marsh species to be planted are as follows:

Cane ( <i>Phragmites australis</i> )	0.5 acre
Saltmeadow cordgrass ( <i>Spartina patens</i> )	0.3 acre
Black needlerush ( <i>Juncus roemerianus</i> )	1.6 acres
Smooth cordgrass ( <i>Spartina alterniflora</i> )	1.4 acres
Open Water (tidal creeks)	<u>0.2 acre</u>
Total Estimated Marsh Area:	4.0 acres

## 2. Planting Plan

Planting will be accomplished by hand during the period from November to March, although this schedule will be dependent upon the extent to which the new marsh surface has stabilized and will support the weight of planting personnel. Marsh grasses will be planted at roughly one-meter intervals, or an overall density of 4,050 plants per-acre, but planting will be performed to avoid the appearance of a grid pattern. Species distribution and placement will be determined by each species' requirements as to ground elevation relative to mean tide level and proximity to shorelines and tidal creeks. Planting will be performed with the goal of creating a system that mimics the conditions in natural marsh. In natural systems, smooth cordgrass generally occurs along marsh shorelines and tidally influenced creeks and flats from the mean tide level (0.0') [+0.65' NAVD88] to approximately a +0.5 foot elevation [+1.15' NAVD88], whereas black needlerush usually forms large stands on slightly higher elevations inland of the smooth cordgrass zones.

### 3. Plant Source(s)

Either field-collected or commercially obtained plants will be used. If possible, local field-collected plants should be given preference over nursery-germinated and grown stock. Potential sources for field-collected plants include the old Bayou La Batre dredge disposal site on Railroad Street, the NAGTI West Fowl River site on Highway 188 near Coden, the Mobile County dredge spoil disposal site on Pioneer Road near East Fowl River, a field nursery on Fort Morgan Road, and/or the natural marsh on Mon Louis Island itself. Borrowing plants from the natural marsh adjacent to the prepared planting site would offer assurance that the plants are suitable to site conditions and would reduce the logistical planning involved with using remote borrow sites.

If plants are field-collected from natural marsh sites, it is recommended that a qualified biologist be present during field collection to monitor for rare and sensitive species such as Seaside Sparrow (*Ammodramus maritimus*), Gulf saltmarsh snake (*Nerodia clarki*), and diamondback terrapin (*Malaclemys terrapin*). Colonially nesting herons and egrets, shorebirds, and seabirds can also be found in these habitats and adjacent sand beaches. Their nests should be identified and avoided. If these species are found to be present in a transplant collection site, removal of plants from that area will be done outside of nesting season when the likelihood for disturbance is minimal.

Commercial nurseries that germinate and grow salt marsh plants include:

SNP Environmental  
721 North McKenzie  
Foley, Alabama 36535  
251-222-1030

Biophilia Nature Center and Native Nursery  
12695 County Road 95  
Elberta, Alabama  
251-987-1200

Rancho la Orquidea, Inc.  
1124 Pearson Road  
Milton, Florida  
850-983-8948

Other commercial sources may be identified at a later date.

**If local field collected plants are used, the following requirements would apply:**

- (1) A plan will be developed to include:
  - a. A map specifically identifying the location and limits of the donor site.
  - b. Written approval of the owner of the donor site and/or the State of Alabama.
  - c. Delineation of the donor site by vegetation type.
  - d. Documentation of the means for vegetation removal from the donor site.

(2) During field collection, no more than 50 percent of any one vegetation type will be removed from any square yard of area. This would avoid impacting the natural marsh as much as possible and would allow a quick recovery of the natural marsh.

(3) Whenever possible, field-collected plants will be planted on the same day they are removed from the donor site or the plants will be heeled in on a temporary basis (roots of plants covered with soil, with stems and leaves exposed) for no more than three days in an intertidal area and then planted.

(4) Transplants will consist of an approximately 4-inch diameter by 6-inch deep plug with several healthy stems. This plug size has been used in other local salt marsh creation projects and has shown excellent survivorship rates.

**If commercially obtained stock is used the following requirements will apply:**

(1) Commercially obtained plants should be certified to be free of any nuisance or exotic species and must be obtained from growers located within 150 miles of the Mobile area.

(2) Plants will consist of northeast Gulf coast ecotypes that are adapted to this climate and the salinity range at Mon Louis Island.

(3) All plants will have an established root system and healthy new growth of stems or leaves.

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