



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

NOV 18 2000

FINDING OF NO SIGNIFICANT IMPACT

To All Interested Agencies and Public Groups:

In accordance with the environmental review guidelines of the Council on Environmental Quality at 40 Code of Federal Regulations (CFR) Part 1500, the U.S. Environmental Protection Agency (EPA) has performed an Environmental Assessment (EA) of the following proposed action under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) of November 1990, House Document 646, 101st Congress (Public Law 101-646).

Project Name: East Marsh Island Marsh Creation (TV-21)
Iberia Parish, Louisiana

Sponsors: U.S. Natural Resources Conservation Service
U.S. Environmental Protection Agency, Region 6
Louisiana Coastal Protection and Restoration Authority/ Office of Coastal Protection and Restoration (OCPR)

Total Estimated Funding	\$ 22,927,751.00
Phase 1 (Engineering and Design Funding)	\$ 1,193,606.00
Phase 2 (Construction Funding)	\$ 21,734,145.00

Location: The proposed project is located in Iberia Parish, Louisiana, on the east end of Marsh Island Wildlife Refuge, Southeast of Lake Sand. The marsh creation sites are centered at approximate coordinates of 29° 33' 13" north latitude and 91° 43' 35" west longitude. The proposed sediment borrow site is located in East Cote Blanche Bay at approximate coordinates of 29° 32' 54.44" north latitude and 91° 39' 55.69" west longitude.

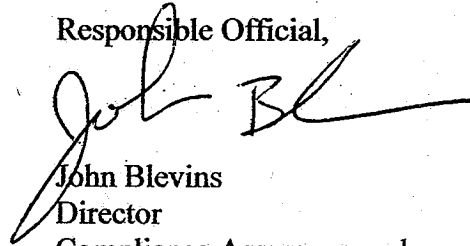
Proposed Action: Between 1930 and the present, the hydrology of Marsh Island has changed due to tidally influenced erosion, subsidence, and oil and gas exploration. In 2002, damage resulting from Hurricane *Lili* converted substantial areas of interior emergent marsh to open water. The proposed East Marsh Island Marsh Creation Project will re-create approximately 165 acres of marsh and renourish an additional 197 acres by dredging approximately 2.75 million cubic yards of sediment from the east/southeastern East Cote Blanche Bay. Marsh creation and nourishment will be achieved by hydraulically-dredging sediment from East Cote Blanche Bay and transporting it via pipeline to fill open water areas and nourish existing marsh areas. After construction, the project area will be planted with native vegetation such as smooth cordgrass (*Spartina alterniflora*), marshhay cordgrass (*Spartina patens*), and saltgrass (*Distichlis spicata*).

The proposed project is part of and consistent with the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority ecosystem strategy to restore barrier islands and gulf shorelines. CWPPRA provides Federal funds for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana. Under CWPPRA, the federal sponsoring agency and the State of Louisiana share the project cost. The federal government provides 85 percent of the project cost and the Office of Coastal Protection and Restoration provide the remaining 15 percent.

Finding: The EPA has performed an EA of the proposed project. On the basis of the EA, the Regional Administrator has determined that the proposed project is not a major federal action significantly adversely affecting the quality of the human environment, and that the preparation of an Environmental Impact Statement (EIS) is not warranted. Comments regarding this preliminary decision not to prepare an EIS may be submitted to the U.S. Environmental Protection Agency, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733.

This preliminary Finding of No Significant Impact will become final after the 30-day comment period expires if no new information is provided to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Copies of the EA and requests for review of the Administrative Record containing the information supporting this decision may be requested in writing at the above address, or by telephone at (214) 665-8150.

Responsible Official,

A handwritten signature in black ink, appearing to read 'John Blevins', is written over the printed name.

John Blevins
Director

Compliance Assurance and
Enforcement Division

ENVIRONMENTAL ASSESSMENT
for the
COASTAL WETLANDS PLANNING, PROTECTION and RESTORATION ACT
EAST MARSH ISLAND MARSH CREATION (TV-21)
IBERIA PARISH, LOUISIANA

1.0 SUMMARY

1.1 Summary of Environmental Assessment

Project Name: East Marsh Island Marsh Creation (TV-21)

Location: The proposed project is located in Iberia Parish, Louisiana, on the east end of Marsh Island Wildlife Refuge, Southeast of Lake Sand. The marsh creation sites are centered at approximate coordinates of 29° 33' 13" north latitude and 91° 43' 35" west longitude. The proposed sediment borrow site is located in East Cote Blanche Bay at approximate coordinates of 29° 32' 54.44" north latitude and 91° 39' 55.69" west longitude.

Sponsors: U.S. Natural Resources Conservation Service (NRCS)
U.S. Environmental Protection Agency, Region 6 (EPA)
Louisiana Coastal Protection and Restoration Authority/ Office of Coastal Protection and Restoration (OCPR)

<u>Total Estimated Funding</u>	<u>\$ 22,927,751.00</u>
Phase 1 (Engineering and Design Funding)	\$ 1,193,606.00
Phase 2 (Construction ¹ Funding)	\$ 21,734,145.00

Land Rights: The Louisiana Department of Wildlife and Fisheries (LDWF) owns the entire island.

Project Purpose: To re-create approximately 165 acres of marsh and re-nourish an additional 197 acres by dredging suitable sediment from the east/southeastern East Cote Blanche Bay.

Dredged Material: Approximately 2.82 million cubic yards

Wetlands: Open Water and Remnant Brackish Marsh

Threatened and Endangered Species: Brown pelicans (*Pelecanus occidentalis*) may occur in the vicinity of the proposed project. The proposed project is not expected to adversely impact this species.

¹ Phase 2, construction of the project, includes project and contract management, supervision and inspection, post-construction biological monitoring, operation, maintenance, repair, replacement, and rehabilitation, and the purchase of real estate.

Cultural Resources: There are no known cultural or historic sites in the proposed project area.

Permits and Compliance: Construction of the project is authorized to begin as soon as the applicable environmental laws and regulations are met, project plans finalized, necessary land rights acquired, U.S. Army Corps of Engineers (USACE) 404 permit issued, and approval of the Louisiana Coastal Wetlands Conservation and Restoration Task Force², established in 1990 under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)³.

1.2 Background. Marsh Island is an uninhabited island located between the Gulf of Mexico and Vermilion Bay in Iberia Parish, Louisiana. The entire island is owned by the State of Louisiana and constitutes the Marsh Island Wildlife Refuge, which was established by the Louisiana Department of Wildlife and Fisheries as a sanctuary for migratory birds. Recent aerial surveys have documented approximately 30,000 geese and 50,000 ducks utilizing the island (Martin 2008).

Between 1930 and the present, the hydrology of Marsh Island has changed due to tidally influenced erosion, subsidence, and oil and gas exploration (Barrilleaux 2004 and 2005). As a result of oil exploration in the 1950's, oil field canals were constructed and the spoil was deposited along these canals to form continuous banks. The newly created banks disrupted the surface water flow and created ponding in the interior marshes. Surface water flow is important to wetland vegetation because it is the main pathway through which nutrients and sediments are delivered, whereas ponding generally decreases wetland productivity (Barrilleaux 2004 and 2005).

In 2001, the Marsh Island Hydrologic Restoration (TV-14) project was constructed to help restore the historical hydrology of Marsh Island by stabilizing the northeastern shoreline of Marsh Island and plugging nine oil field access canals (Barrilleaux, 2004 and 2005). Marsh creation was initially planned as part of the TV-14 project, but this portion of the project could not be completed due to cost issues (Martin, 2008). Average marsh loss rates within the project area were historically relatively low (-0.29% per year); however, after Hurricane *Lili* in 2002, aerial photography revealed that substantial areas of interior emergent marsh had been converted to open water (Martin 2008). Due to the area's changes, a new marsh loss rate was calculated for this area and found to be considerably higher than the historical rate (-1.31% per year) (Martin 2008). To help stabilize this area, the EPA, NRCS and OCPR have proposed to create approximately 165 acres of marsh and nourish an additional 197 acres on the northeast tip of Marsh Island. Additionally, the TV-21 project

² The Task Force is comprised of representatives of the NRCS, the USACE, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (FWS), and the EPA. The Governor of Louisiana represents the State, with OCPR providing the primary source of the non-Federal funding.

³ Concern over the loss of coastal wetlands led to the enactment of CWPPRA in 1990, to provide funding for the planning, design and construction of coastal restoration projects in Louisiana. An annual Priority Project List is developed through the participation of local, State and Federal CWPPRA partners. Projects are selected and assigned to specific CWPPRA Task Force member federal agencies for funding by CWPPRA and the State of Louisiana. The TV-21 project was funded as part of the 14th priority project list.

will work synergistically with the recently completed TV-14 project to help reduce the effects of lateral erosion in existing marsh areas.

1.3 Purpose and Need for Action: Marsh Island has historically been impacted by significant land loss effects. Recent aerial photography of Marsh Island has revealed that marsh loss has occurred via the expansion of interior broken marsh into surrounding unbroken marsh and the conversion of broken marsh into open water due to the lateral erosion of unconsolidated sediments beneath the living root zone. In addition, damage from recent hurricanes has caused significant damage to the interior emergent marsh. Without action, the land loss of -1.31% per year in the proposed project area will likely continue.

1.4 Potential Benefits and Adverse Impacts: The Marsh Island Wildlife Refuge is located on Marsh Island and was established by the LDWF as a sanctuary for migratory birds. The loss of eastern Marsh Island would expose large areas of valuable estuary and associated inland wetlands to increased wave attack, saltwater intrusion and storm surges. Additionally, severe impact results would be experienced by waterfowl populations.

The use of dredged material for marsh creation has been an important technique in restoration projects for decades in the United States. However, many created marshes have been shown to significantly differ from natural marshes in physical and biological parameters such as bird species composition, nekton and benthic infaunal densities, above ground and below ground biomass, primary productivity, sediment properties such as soil nutrient content and sediment grain size, geomorphological features such as elevation, water edge to marsh area ratios and tidal connectivity. As the newly created marsh ages, research has shown that some of the habitat measured parameters progress to a functioning level that is similar to natural marshes (Martin 2008).

An additional restoration strategy proposed in this project is the use of marsh nourishment as a restoration technique. Marsh nourishment is a restoration technique that can refer to either the direct placement of a thin-layer of sediment through spray or hydraulic dredging or either from the "spilling" of a thin-layer of sediment over marsh that is adjacent to an uncontained restoration project. Most marsh nourishment studies conducted so far have shown that the goal of increasing plant productivity in deteriorated marsh can be achieved with the deposition of 5 to 15 cm of sediment and sediment additions greater than 30 cm can also positively affect plant biomass.

One of the most important considerations for a marsh creation and nourishment project is achieving the proper marsh elevation. Marsh platforms built too high may become dominated by upland vegetation, whereas platforms built too low may be excessively inundated and therefore unsuitable for vegetation establishment (Martin 2008). The proposed TV-21 project has estimated the optimum marsh creation and nourishment height to be +1.8 ft North American Vertical Datum of 1988 (NAVD88). With this elevation, the platform would be inundated approximately 6.5% of the time and would be optimum for the locally dominate *Spartina patens* (marshhay cordgrass) species. At the end of 20 years, it is forecast that approximately 88% of the original habitat will remain (318 acres).

2.0 ALTERNATIVES: Four alternatives were considered for the proposed project and include the following: 1.) No-Action, 2.) Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative), 3.) Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Southern Borrow Area, and 4.) Marsh Creation and Nourishment by Unconfined Hydraulic Dredging. Current planning concepts are influenced by previous experience at marsh creation projects and are important considerations in the development and discussion of alternatives.

2.1 No-Action Alternative: The no-action alternative was retained throughout the study as a basis for comparing the relative benefits and impacts of the alternatives. This alternative involves leaving eastern Marsh Island with no additional restoration effort. As noted in the Ecological Review, the average marsh loss rates within the project area were historically relatively low (-0.29% per year); however, after Hurricane *Lili* in 2002, aerial photography revealed that substantial areas of interior emergent marsh had been converted to open water (Martin 2008). Due to the area's changes, a new marsh loss rate was calculated for this area and found to be considerably higher than the historical rate (-1.31% per year) (Martin 2008). Therefore, this alternative would allow the erosion of the area to continue resulting in the conversion of broken marsh into open water.

2.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): The preferred alternative consists of marsh creation and nourishment on the northeast tip of Marsh Island using sediment from East Cote Blanche Bay (Figure 1). Survey data was collected for the proposed project site and the optimum marsh creation height was determined to be +1.8 ft NAVD88. To ensure the project area will reach the healthy marsh creation height level, the required in-place marsh fill volume was estimated to be approximately 2.75 million cubic yards. The hydraulically dredged material is proposed to be pumped as a mud slurry into the contained marsh creation area's open water ponds and mud flats.

One of the most critical design components of a marsh creation project is the determination of the fill area volume. Field investigations from 2003 and 2004 have shown that the project area has undergone a significant conversion of marsh to open water. One of the goals of the proposed project is to create and nourish marsh that will be as close as possible to healthy marsh conditions. In 2007, C.H. Fenstermaker and Associates, Inc. conducted marsh elevation surveys for the proposed project site. The existing marsh height was determined to be approximately +1.72 ft NAVD88. Although the existing elevation is supporting limited marsh habitat, additional height is needed to support healthy marsh vegetation over the 20-year life of the project. Based on the marsh elevation surveys, +1.8 ft NAVD88 was selected as the target marsh elevation (Tables 1 and 2) (Martin 2008). The proposed target marsh elevation is above the Mean High Water Level (MHW) of the local tidal prism and is estimated to be inundated only 6.5% of the time. However, because the Gulf of Mexico is experiencing one of the highest levels of relative sea level rise in the world, it is anticipated that the tidal prism may rise and support vegetation at a slightly higher elevation over the project life. (Gillen 2008)

Containment dikes are needed for construction of the marsh creation site and will be constructed from in situ material borrowed from within the project area. In 2007, Aquaterra Engineering completed a geotechnical investigation of the fill area and offshore borrow area of the proposed project. From this investigation, the containment dikes for the marsh creation site were recommended to be built with a crown elevation of +4.5 ft NAVD88, a crown width of 5 ft and side slopes of 1(V):4(H) to maintain a factor of safety of 1.1 (Figure 2) (Martin 2008). After construction, settlement of the containment dikes is estimated to be approximately 1 ft within the first year and 1.9 ft over the 20-year project life. Based on this assessment, the interior containment dikes will be fully degraded prior to demobilization. The exterior containment dikes will be strategically gapped immediately following construction and fully degraded approximately one year after construction.

An added feature to this proposed design is the construction of an earthen plug at the southern end of the north-south oriented oil canal. Early in the project development, consideration was given to filling the adjacent oil field canals. However, after review, it was determined that land rights issues would prevent the filling of the oil field canals in the project plans. In this area, the adjacent marsh has undergone significant scour and excess tidal movement into the interior marsh areas. To address this concern, an earthen plug has been designed to connect the existing spoil banks of the canal. The plug will be constructed of in situ material and will be built to a crown elevation of +6.0 ft NAVD88. The proposed crown elevation is higher than the surrounding spoil banks; however, the total settlement of the plug over the 20 year project life is expected to be approximately 3.8 ft. After settlement, this would result in a final crown elevation of +2.2 ft NAVD88 at the end of the 20-year project life. The crown width is recommended to be approximately 3.8 ft, consistent with adjacent spoil banks. Based on recommendations provided by Aquaterra Engineering, 1(V):5(H) side slopes were determined to be needed to maintain an adequate factor of safety of 1.3 (Gillen 2008).

After construction of the marsh creation site, native vegetation (i.e., Smooth Cordgrass, *Spartina alterniflora*, Marshhay Cordgrass, *Spartina patens*, and saltgrass, *Distichlis spicata*) will be planted on the newly created marsh platform to conserve the newly placed material. Two vegetation planting phases are planned within the first year to allow for the dewatering of ponding areas. The first phase of planting will take place immediately after construction in areas that are most susceptible to wave energies and erosion. Approximately six months after phase one is complete, phase two of the plantings will be completed in the large interior areas of the marsh platform. It is anticipated that a total of approximately 165 acres of the project area will be planted in the two planting phases (Martin 2008).

Within East Cote Blanche Bay, approximately 25 square miles were surveyed to determine the most appropriate area for borrow material. Two potential sediment sources were identified and the site located at the northern end of the search area was selected based on the analysis of the material contained in the vibracores (Figure 3). In the northern area, approximately 4.0 million cubic yards of suitable marsh fill was located and has been determined to be comprised of predominately soft clay containing trace shell hash as well as whole shell and shell fragments (Martin 2008). Because of the location and composition of the sediment in the proposed borrow area, additional sediment testing was completed to

determine the presence of any potential contamination that could be detrimental to the health of the newly created marsh. The final test results have indicated that all levels were acceptable for marsh creation (Gillen 2008). To determine the potential impacts of the borrow area on the local wave climate, a two dimensional model called Simulating Waves Nearshore (SWAN) was run for the proposed project's borrow source location. The maximum change in wave height was estimate by the model to be less than 0.5 ft and did not propagate a significant distance away from the borrow area. As a result of the model runs, no negative impacts are expected as a result of the borrow area construction (Gillen 2008).

2.3 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Southern Borrow Area: Under this alternative, the marsh creation and marsh nourishment would be the same design approach but the borrow source would be located at the southern end of the search area located within East Cote Blanche Bay (Figure 3). Vibracores were collected from the proposed northern and southern borrow areas. Based on a comparison of the vibracores from the two potential borrow source areas, the southern borrow area source was determined to not be appropriate for the proposed project (Martin 2008). From this determination, the alternative to use the southern borrow area was removed from further consideration.

2.4 Marsh Creation and Nourishment by Unconfined Hydraulic Dredging: As this project was initially proposed in 2004, the purpose was to create marsh by completely filling in open ponds and planting the newly created marsh areas. It was anticipated that the existing marsh habitat would be benefited through marsh nourishment as a result of creating a mud slurry by hydraulically dredging the sediment material and allowing it to flow unconfined throughout the project area (CWPPRA 2008). From the geotechnical analysis and engineering design considerations, it was determined that an unconfined design approach would result in the borrow material not being distributed appropriately throughout the project area and would therefore not result in an adequate marsh elevation height. As a result of this determination, this alternative was removed from further consideration.

3.0 AFFECTED ENVIRONMENT:

3.1 Soils: The 2008 Wetland Value Assessment has described the project area's soils as being mapped in 1978 Soil Survey of Iberia Parish, Louisiana as Lafitte and Scatlake Series. The Lafitte soils are located in the northwest portion of the project area. These soils are organic, very fluid and rapidly permeable. Scatlake soils, located in the remainder of the project area are very fluid, very slowly permeable with a clayey substratum. Field investigations indicate that water bottoms are primarily soft. Additionally, recent project geotechnical surveys have shown that the soil in the marsh fill project area is brown to gray, very soft to soft organic clays.

Based on geophysical and geotechnical data collected by Coastal Planning & Engineering, Inc., the borrow area located on the northern end of the approximately 25 square miles surveyed for the most appropriate area for fill material. The northern end of the surveyed area is located within East Cote Blanche Bay and contains approximately 4,000,000 yd³ of sediment. The borrow area sediments are predominately soft clays. Because of the location and composition of the sediment in the proposed borrow area,

additional sediment testing was completed to determine the presence of any potential contamination that could be detrimental to the health of the newly created marsh. The final test results have indicated that all levels were acceptable for marsh creation (Gillen 2008).

3.1.1 No Action Alternative: Under this alternative, the existing soils in the marsh creation sites would continue to convert to open water and expose large areas of valuable estuary and associated inland wetlands to increased wave attack, saltwater intrusion and storm surges. Additionally, severe impact results would be experienced by waterfowl populations.

3.1.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): Based on an analysis completed by Coastal Planning & Engineering, Inc., the northern end of the search area in East Cote Blanche Bay was selected for use in the proposed project. The northern borrow area was determined to contain approximately 4.0 million cubic yards of suitable marsh fill and has been determined to be comprised of predominately soft clay containing trace shell hash as well as whole shell and shell fragments (Martin 2008). Because of the location and composition of the sediment in the proposed borrow area, additional sediment testing was completed to determine the presence of any potential contamination that could be detrimental to the health of the newly created marsh. The final test results have indicated that all levels were acceptable for marsh creation (Gillen 2008).

3.2 Hydrology: Coastal Planning & Engineering, Inc. has described Louisiana's coastal zone location as being at the terminus of North America's largest drainage basin and encompasses approximately 1.2 million square miles. The average maximum and minimum water discharge of the Mississippi River are approximately 75,730 yd³/second and 3,701 yd³/second, respectively.

The lower Mississippi River traverses the Mississippi delta plain and cuts into deltaic deposits that are older than the present river position. The Mississippi deltaic plain is characterized by major river diversions that promote the development of large-scale delta lobes. These delta complexes occur on a millennial (1000-year) time scale. Bay fills are built and abandoned on a centennial (100-year) time scale, whereas smaller sub-deltas exists for two centuries on average. For the proposed general project area, the lower Mississippi River is entrenched in the plain but contains a bedload of sands that continue to accumulate on relict point bars and as channel margin, sheet and shoal deposits. Classic morphological patterns associated with graded streams are not present in the lower Mississippi River because the channel is entrenched.

3.2.1 No Action Alternative: Without marsh creation and nourishment of the east end of Marsh Island, the marsh would continue to convert to open water. Area change rates for the proposed project area have been determined to be -1.31% per year. With this rate of change, the proposed project area could become sub-aqueous without remedial action.

3.2.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): To determine the potential impacts of the borrow area on the local wave climate, a two dimensional model called Simulating Waves Nearshore (SWAN) was run for the proposed project's borrow source location. The maximum change in wave height was estimated by the model to be less than 0.5 ft and did not propagate a significant distance away from the borrow area. As a result of the model runs, no negative impacts are expected as a result of the borrow area construction (Gillen 2008).

3.3 Water Quality Conditions: Marsh Island is primarily a low-lying marshy island located between the Gulf of Mexico and Vermillion Bay in southern Louisiana. The waters that impact the Island are from the Vermilion watershed (Hydrologic Unit Code 08080103). Waterbody subsegments are characterized by designated beneficial uses such as primary contact recreation, drinking water supply, oyster propagation, etc. The waterbody subsegment most closely impacted by the proposed project is entitled Marsh Island (061105). The Marsh Island subsegment currently has no water quality impairments and is meeting all designated uses. The north side of eastern Marsh Island is a brackish marsh and faces West Cote Blanche Bay (subsegment 061001). West Cote Blanche Bay was listed for fecal coliforms and excessive nutrients on the 2004 Section 303(d) list under the Clean Water Act for Louisiana. A Total Maximum Daily Load (TMDL) has been completed for excessive nutrient loadings. The fecal coliform standard that applies to this area is not expected to be impacted by the proposed project. Therefore, there are no apparent water quality problems (Stead 2008).

3.3.1 No Action Alternative: The No-Action Alternative could potentially contribute to an increase in turbidity in the East and West Cote Blanche Bays due to increased wave actions causing greater erosion and formation of erosive, high-energy tidal surges allowing higher salinity waters of the Gulf of Mexico into interior bay waters. The continued deterioration of the existing marshes could also potentially contribute to an increase in turbidity.

3.3.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): This alternative would have no long-term adverse impact on present conditions. However, short-term adverse temporary impacts due to increased turbidity from placement of material on the island could occur during project construction. The slurry discharge site can contain suspended silt, clay, organic matter and nutrients, which could temporarily degrade the water quality in a dredge plume. These impacts are minor and would be limited to the construction phase of the project. It is expected that turbidity levels would return to normal shortly after construction is completed.

3.4 Vegetation: The 2008 Wetland Valuation Assessment (WVA) has noted the following: The 1949 Vegetative Type Map classified this area as both saline and brackish. The saline portion was located in the northern part of this project area. The 1968, 1978 and 1988 Vegetative Type Maps classified this area as brackish marsh. The 1997 Vegetative Type Map classified the northern 75% of the project area as intermediate marsh, and the southern quarter as brackish. The 2001 Vegetative Type Map show the majority of the area is intermediate marsh, very similar to 1997. During the CWPPRA WVA field trip on June 17, 2004, it was confirmed that the project area supports an intermediate and brackish marsh

community dominated by olney bulrush (*Shoenoplectus olneyi*) and approximately 30% marshhay cordgrass (*Spartina patens*). Other species such as bulltongue (*Sagittaria lancifolia*) and cattail (*Typha latifolia*) occur in parts of the project area as well.

The WVA also continues to note that submerged aquatic vegetation was sparse to nonexistent in most ponds, especially those open water areas that were apparently recently created by the hurricane. However, some of the apparently older ponds had dense stands of submerged aquatic vegetation. Species observed included wigeongrass (*Ruppia maritima*) and Eurasian water-milfoil (*Myriophyllum spicatum*)

3.4.1 No Action Alternative: Without implementation of the proposed project, the area will continue to convert to open water and increase the potential for continued vegetation loss in surrounding areas.

3.4.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): By re-establishing the marsh platform at an elevation conducive to the establishment of marsh vegetation, the life of the wetlands should be increased by providing an additional 318 acres of emergent wetlands over the 20 year life of the project.

3.5 Wildlife and Fisheries: Marsh Island provides important habitat for a multitude of fish and wildlife species. Many species of wetland wildlife are afforded food, cover, nesting, and resting habitat by the emergent wetlands. The LDWF has noted as many as 30,000 geese and 50,000 ducks have been documented using the refuge. Specifically, the blue and snow geese (*Chen caerulescens*) utilize this area as important wintering grounds. In addition to waterfowl, Marsh Island is also inhabited by the American alligator (*Alligator mississippiensis*) and various furbearers. In 1957, Hurricane Audrey reduced the numbers of White-Tailed deer (*Odocoileus virginianus*) residing on Marsh Island; however, since that time the population has rebounded. Fisheries are a commercially important habitat of Marsh Island. Commercial harvests of shrimp in Vermilion Bay and the gulf, as well as recreational harvests on the refuge, are due to shrimp utilization of Marsh Island as a nursery ground. Post-larval shrimp migrate into the marshes in the spring and summer, grow and thrive in the marsh, then migrate out in late summer and fall (LDWF 2008).

3.5.1 No Action Alternative: Under the No Action alternative, the area would continue to provide nursery habitat and associated food resource for small resident fishes. However, continued land loss will lead to increasing water depth and the value of the area as a food source and nursery will decline.

3.5.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): This alternative would protect existing marsh, create vegetated wetlands, and reduce future land loss. As the project area marshes are protected and enhanced, the habitat value for the associated fish and wildlife species will increase, and persist for a longer period of time. All project activities will be conducted in a manner to first avoid, and otherwise minimize, any potential effects to marine fisheries and active migratory, wading bird nesting colonies. Prior to construction, a trained biologist will

conduct a survey for bird nesting. If bird nesting activities are identified, the LDWF and FWS will be notified for additional consultation. All on-site contract personnel will be informed of the need to identify colonial nesting birds and their nests, and, to the extent possible, avoid affecting them during the breeding season.

3.6 Essential Fish Habitat (EFH): Project evaluation included an examination of habitat considered to be essential for fisheries as established under the provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), intended to promote the protection, conservation, and enhancement of Essential Fish Habitat (EFH). The MSFCMA defines EFH as those waters and substrates necessary to federally managed fish species for spawning, breeding, feeding or growth to maturity of specific species depending upon life stage.

As reported in the Lake Portage Land Bridge Project Environmental Assessment (PTV-20/TV-17), the marshes and, surrounding substrate and waters of this area support populations of both fresh water and marine fisheries resources. The Coast 2050 Rainey mapping unit lists the characteristic species to include, but are not limited to: red drum (*Sciaenops ocellatus*), black drum (*Pogonias cromis*), Spanish mackerel (*Scomberomorus maculatus*), grey snapper (*Lutjanus griseus*), Gulf menhaden (*Brevoortia patronus*), Southern flounder (*Paraichthys lethostigma*), bay anchovy (*Anchoa mitchilli*), Atlantic croaker (*Micropogonias undulatus*), Grass shrimp (*Palaemonetes pugio*), white shrimp (*Litopenaeus setiferus*), brown shrimp (*Farfantepenaeus aztecus*), blue crab (*Callinectes sapidus*), large-mouth bass (*Micropterus salmoides*), channel catfish (*Ictalurus punctatus*), and American oyster (*Crassostrea virginica*) (EA 2000).

3.6.1 No Action Alternative: The No Action Alternative would continue the conversion of highly productive and declining categories of EFH to other categories and potentially contribute to declines in federally managed species or their prey over time.

3.6.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): With the preferred alternative, the creation of brackish marsh would result in the loss of mud bottom and estuarine water column. However, brackish marsh would replace those habitats. Loss of mud bottom EFH could result in negative impacts to subadult brown shrimp and post larval/juvenile red drum. Although adverse impacts would occur to some types of EFH, more productive types of EFH (i.e., brackish marsh) would be created under the preferred alternative. Therefore, the preferred alternative would result in a net positive benefit to all managed species that occur in the project area.

3.7 Threatened and Endangered Species, Brown Pelicans (*Pelecanus occidentalis*):

Federal Status: The brown pelican was listed as endangered on the list of Threatened and Endangered Species in 1970.

Description: The brown pelican is a large water bird with a massive bill and huge throat pouch. Its wings and body are mostly grayish-brown and its head is white in front and dark

brown behind. During the breeding season, the white plumage turns a vibrant yellowish-gold color. Typically, the brown pelican weighs about 9 pounds and has 6 foot wingspan. The brown pelican's diet consists of menhaden and mullet fish. Pelicans live up to over 30 years and will lay 2 to 4 white eggs during breeding season (EA 2007).

Habitat: The brown pelican habitat is predominately a coastal species and is rarely seen inland or far out to sea. Mostly, the brown pelican feeds in shallow estuarine waters; and less often, up to 40 miles from shore. For nocturnal roosting and daily loafing, the brown pelican utilizes sand spits, offshore sand bars and islets. Some roosting sites may eventually become nesting areas (EA 2007).

Distribution: According to the FWS, brown pelicans are currently known to exist on Marsh Island. In spring and summer, the brown pelican nests are typically built in mangrove trees or other shrubby vegetation, although occasional ground nesting may occur. Brown pelicans feed along the Louisiana coast in shallow estuarine waters, using sand spits and offshore sand bars as rest and roost areas (EA 2007).

Reasons for Decline: According to the FWS, the following reasons for decline of the species include chemical pollutants, colony site erosion, disease, and human disturbance (EA 2007).

Impact Analysis of TV-21 on Brown Pelicans: Although records have illustrated that no known nesting locations are within TV-21's project area, brown pelicans could utilize the area for foraging and/or loafing. Potential project related effects to brown pelicans would include temporary displacement from suitable foraging and loafing sites during project construction.

3.7.1 No Action Alternative: Without implementation of the proposed project, existing potential brown pelican habitat would continue to be lost.

3.7.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): This alternative would extend the life of the island-protecting habitat from loss over the 20 year project life. Also, any pelicans utilizing the project area during project construction could easily relocate. Implementation of the proposed project is not likely to adversely impact the brown pelican and would likely enhance the quantity and quality and increase the longevity of the available habitat. Construction will be done within the guidelines set forth by the FWS and LDWF to insure protection of critical habitat necessary for the brown pelican. Additionally, all contractors would be required to minimize habitat disturbance and would be notified of the need to identify nesting birds and their nests, and should avoid affecting them during the breeding season.

3.8 Recreation: Marsh Island has recreational value due to the unique location between the gulf and inland marshes. Recreational fishing, shrimping and hunting is often very productive and is enjoyed by many recreational sportsmen. LDWF has estimated that approximately 30,000 annual man-days of recreation occur on the Marsh Island Refuge.

3.8.1 No Action Alternative: Recreational use within the project area would continue at its present level. The marshes within the project area provide numerous areas for hunting and fishing opportunities. However, over time these marshes would erode and subside, converting to more open water areas. Continued marsh loss translates into less edge and estuarine marsh habitat available to fish. Lost nursery and breeding grounds would result in less productive fishing in the future.

3.8.2 Marsh Creation and Nourishment by Confined Hydraulic Dredging from the Northern Borrow Area (Preferred Alternative): The recreational environment in and around the project area would experience limited short-term disruption imposed by the physical size and working activities of the construction phase of the project. Dredging activities would increase the turbidity in the area of work and in the vicinity of the discharge pipes. This turbidity may disrupt water-oriented recreational activity occurring within the vicinity; however, these adverse impacts would be temporary. Positive long-term benefits would be the creation of the marsh and the added benefits of providing shelter and habitat for wildlife.

4.0 OTHER ENVIRONMENTAL CONSIDERATIONS

4.1 Cultural Resources: The State Historic Preservation Officer of Louisiana has determined that there are no known cultural or historic site in the Marsh Island project area.

4.2 Socio-Economic and Environmental Justice (EJ): According to a basic EJ analysis performed for the Marsh Island project area, there are no significant EJ issues for the 1 square mile or 50 square mile areas (French 2008).

4.3 Coastal Zone Management, Prime Farmlands, and Floodplains

4.3.1 Coastal Zone Management (CZM). In compliance with CZM requirements, the project will need a Coastal Use Permit (CUP) prior to construction. Applications for the CUP and USACE 404 permits have been submitted. A Joint Public Notice for both permits will be issued upon completion of this EA.

4.3.2 Prime Farmland/Overgrazing. According to NRCS, the proposed project will not impact any prime, unique or statewide important farmlands, and there are no livestock currently grazing in the area, nor is there a potential for grazing once the project is installed.

4.4 Hazardous, Toxic and Radioactive Waste: Federal databases at the EPA and state databases at the Louisiana Department of Environmental Quality (LDEQ) were reviewed to determine the location of any hazardous material sites and to identify any potential hazardous materials sites within the study area. None of the federal or state databases searched located any potential hazardous materials sites near the project area or the borrow area.

4.5 Cumulative Impacts: Cumulative impacts would be those aggregate impacts to the environment resulting from the proposed action in combination with other ongoing actions, and actions being considered within the reasonably foreseeable future. No significant adverse cumulative impacts are expected. The proposed action is part of an effort under CWPPRA to create, protect, restore and enhance wetlands in coastal Louisiana. CWPPRA

provides federal funds for planning and implementation of such projects. Other projects located near the proposed TV-21 project are included in Table 3.

4.6 Unavoidable Adverse Effects. The primary unavoidable adverse effects are the immediate impacts from construction related sediment excavation and deposition on the non-mobile benthic organisms in areas adjacent to specific project features, minor and temporary disturbance to adjacent wetlands, water and air quality. Any effects on air quality and the noise generated by the proposed project will be of a temporary nature.

4.7 Relationship between Local, Short-term Use of the Environment and the Maintenance/Enhancement of Long Term Beneficial Uses. All structural and non-structural alternatives have short-term localized impacts during construction, but offer significant long-term environmental benefits. No long-term adverse impacts to wetlands, water quality, threatened or endangered species, species managed by the Gulf of Mexico Fishery Management Council or their essential habitat, other fish and wildlife resource, recreational or socioeconomic resources or cultural resources are expected.

4.8 Irreversible and Irretrievable Commitment of Resources. The irreversible and irretrievable commitment of resources would be labor, materials, wear on machinery, monies spent and energy expended for implementation of the restoration action.

5.0 FIGURES, TABLES AND CONSULTATION LETTERS. Coordination has been maintained with each of the CWPPRA Task Force agencies and the OCPR. Consultation has been conducted with the FWS and LDWF, in accordance with the Endangered Species Act of 1973 and the Fish and Wildlife Coordination Act. The EA has been prepared in coordination with NMFS in determining categories of EFH and associated fisheries species within the project vicinity. Submittal of the EA is provided to initiate formal federal consultation requirements pertaining to EFH under the MSFCMA. Federal, state, tribal and local agencies, as well as other interested stakeholders, will received a copy of this EA. Consultation has also been conducted with the SHPO in accordance with the National Historic Preservation Act of 1966, and Archaeological and Historic Preservation Act of 1974. Responses from the respective agencies with regard to the proposed action are included in this document.

The public recognizes that the continued loss of coastal wetlands can ultimately result in the displacement of entire communities, the loss of occupational and recreational opportunities, and ultimately, the forfeiture of a unique culture and way of life. Passage of the Louisiana constitutional amendment establishing the Coastal Wetlands Conservation and Restoration Fund clearly demonstrated the public's overwhelming support to effectively address the State's coastal land loss problem. This statutorily dedicated fund has provided a state funding mechanism for cost sharing this project. Public involvement was achieved through the public meeting conducted during the project development and selection stages under CWPPRA, and involved input from the public and local, state and federal agencies. The project concept and overview was originally proposed to the public at a nomination meeting held in 2004.

6.0 REFERENCES.

- Aquaterra Engineering, LLC., August 13, 2008. *Report of Geotechnical Investigation, East Marsh Island Marsh Creation Project (TV-21), Iberia Parish, Louisiana*. Contract No. AQT No. 910700196. Baton Rouge, LA.
- Barrilleaux, Troy C. and Juneau, Herbert. 2004 and 2005. Operations, Maintenance, and Monitoring Report for Marsh Island Hydrologic Restoration (TV-14). LDNR CRM, Lafayette Field Office, Lafayette, LA.
- C.H. Fenstermaker & Associates. February 6, 2007. Summary of Marsh Health/Elevation at C.H. Fenstermaker & Associates's Marsh Elevation Locations. 4 pp. (Prepared for Louisiana Department of Natural Resources)
- CWPPRA Environmental Work Group (CWPPRA EWG). October 2008. *East Marsh Island Marsh Creation (TV-21) Project Information Sheet for Wetland Value Assessment*. EPA and CPRA.
- Environmental Assessment (EA). 2000. *Lake Portage Land Bridge Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Project (PTV-20/TV-17) Vermilion Parish, Louisiana*. NRCS, EPA and LDNR.
- Environmental Assessment (EA), *Mississippi River Sediment Delivery System (BA-39)*. 2007. Plaquemines and Jefferson Parishes, Louisiana.
- Finkl, C.W., Forrest, B.M., Andrews, J.L., and Larenas, M. 2008. *Geophysical and Geotechnical Investigations Conducted for the East Marsh Island Marsh Creation Project, Louisiana*. Boca Raton, Florida: Coastal Planning & Engineering, Inc. 18 p. (Prepared for Louisiana Department of Natural Resources)
- French, Don. October 10, 2008. East Marsh Island Marsh Creation. Email correspondence from D. French (EPA) to M. Magee (EPA).
- Gillen, Dain. October 2008. *Final Design Report East Marsh Island Marsh Creation Project (TV-21)*. CPRA, Baton Rouge, LA.
- Gillen, Dain. August 26, 2008. East Marsh Island Marsh Creation Project presentation for the 30% Design Review Meeting. CPRA, Baton Rouge, LA.
- Louisiana Department of Wildlife & Fisheries (LDWF). September 2008. <http://www.wlf.state.la.us/hunting/wmas/refuges/marshisland.cfm>
- Martin, Summer R. and Green, Mandy M. 2008. *Ecological Review: East Marsh Island Marsh Creation*. CPRA, Baton Rouge, LA.

Stead, Mark. September 30, 2008. East Marsh Island Marsh Creation. Email correspondence from M. Stead (EPA, Monitoring & Assessment Section) to M. Magee (EPA, Marine & Coastal Section).

US Fish and Wildlife Service. October 2008.

<http://www.wlf.state.la.us/hunting/wmas/refuges/marshisland.cfm>

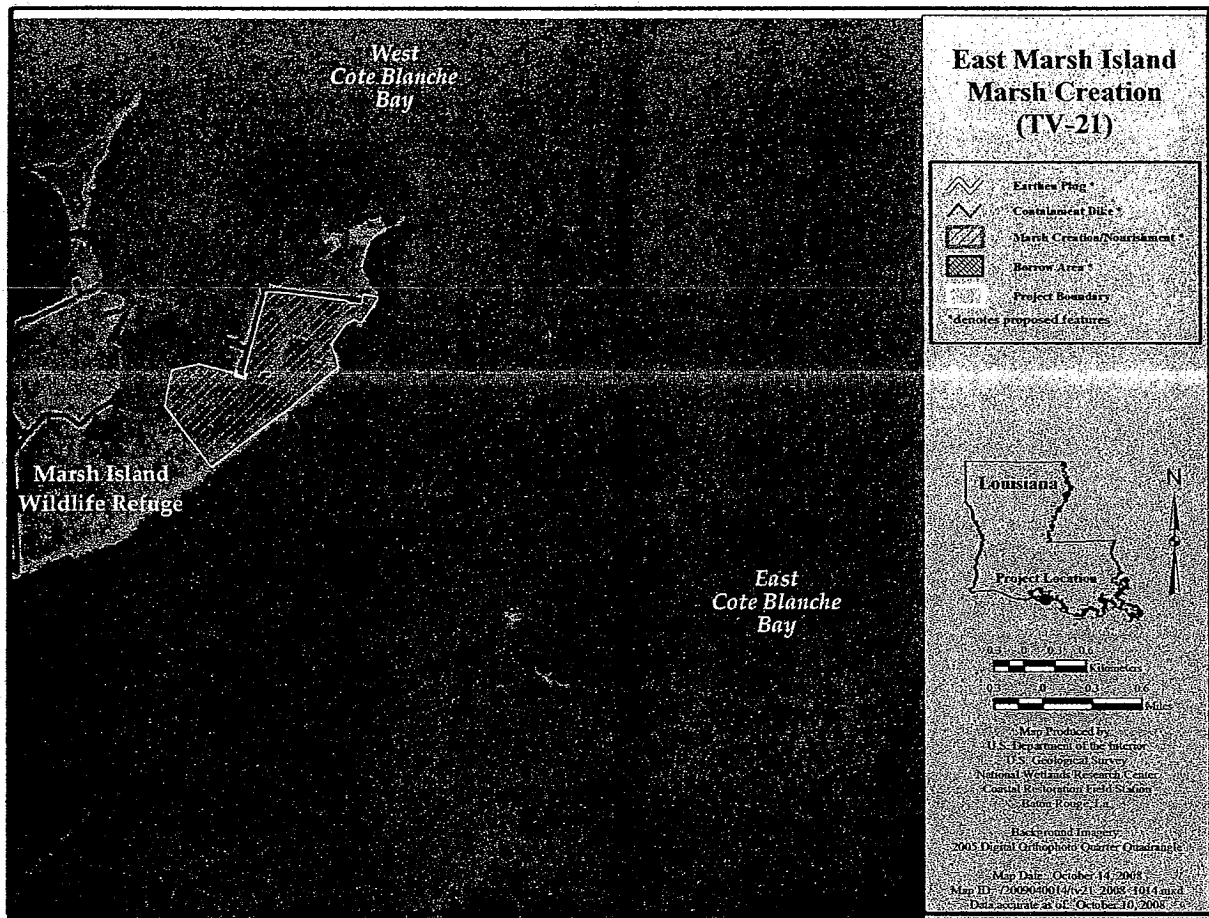


Figure 1. East Marsh Island Marsh Creation (TV-21) project map and area features.

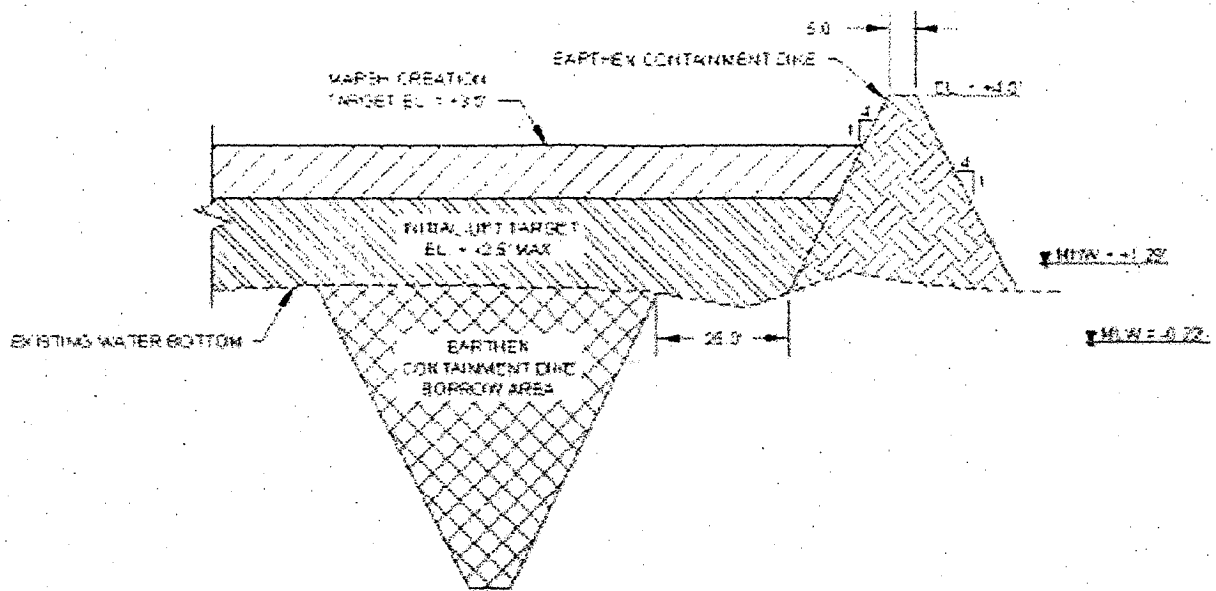


Figure 2. Design of the earthen containment dike (Gillen 2008).

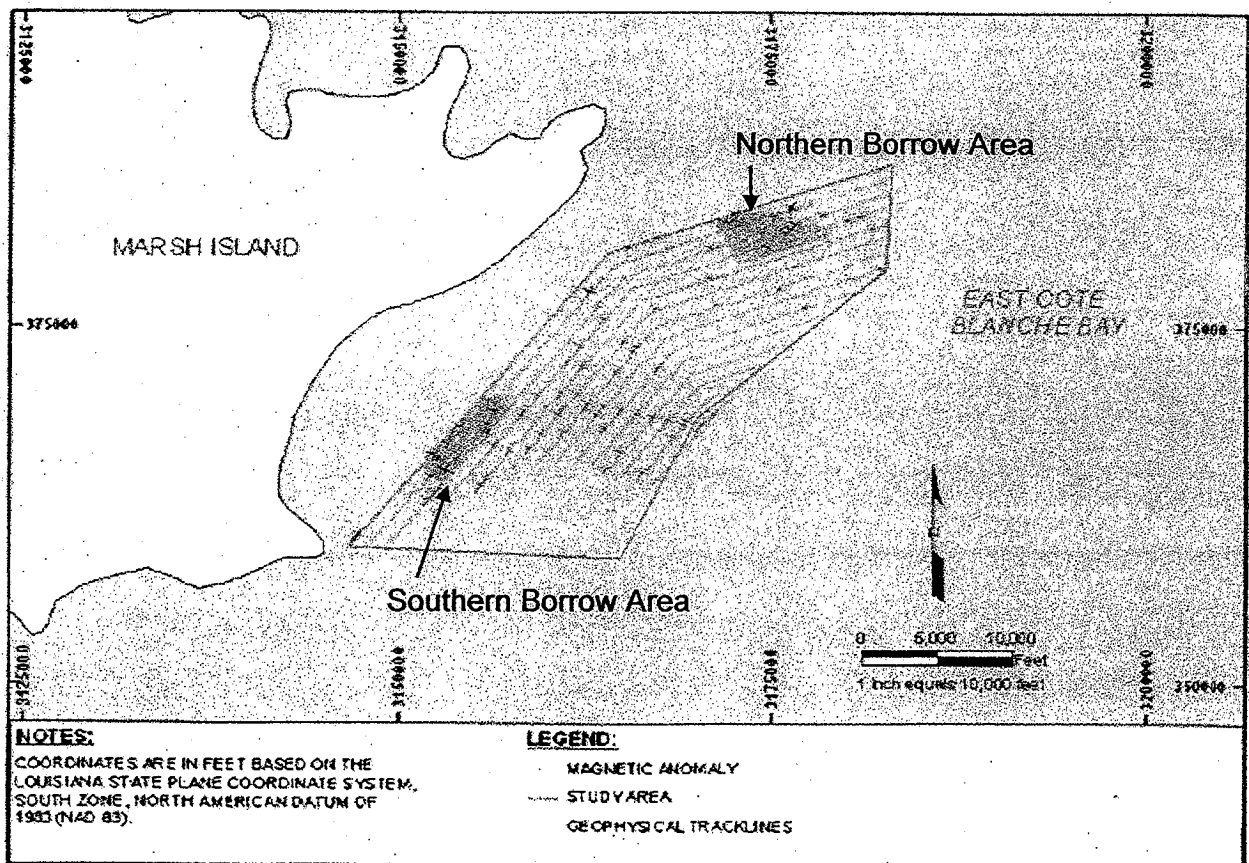


Figure 3. Sediment search area and proposed borrow source locations (Martin 2008).

Location Number	Marsh Elevation (feet NAVD 88)		
	Site 1	Site 2	Site 3
1	1.65	1.80	1.56
2	1.50	1.95	1.72
3	1.65	1.65	1.81
4	1.53	2.00	1.92
5	1.43	1.86	1.60
6	1.79	1.98	1.54
7	1.81	1.98	1.57
8	1.57	1.78	1.63
9	1.92	2.11	1.59
10	1.92	1.87	1.43
11	1.87	1.94	1.67
12	1.84	1.65	1.90
13	1.85	1.42	1.76
14	1.51	1.65	1.85
15	1.54	1.78	1.55
16	1.88	1.87	1.09
17	1.76	1.91	1.58
18	1.78	1.76	1.54
19	1.75	1.69	1.65
20	1.15	1.82	1.86
AVERAGE	1.69	1.82	1.64
OVERALL AVERAGE = +1.72 feet NAVD 88			

Table 1. Average Marsh Elevation Survey Results (Gillen 2008)

Starting Elevation (feet NAVD 88)	Total Settlement at Year 20 (feet)	Final Elevation at Year 20 (feet NAVD 88)
+2.0	1.3	+0.7
+2.5	1.4	+1.1
+3.0	1.7	+1.3
+3.5	1.8	+1.7
+4.0	2.1	+1.9

Table 2. Marsh fill settlement for a range of potential elevations (Gillen 2008).

Project Number	Project Name	Construction Date
TV-09	Boston Canal/Vermilion Bay Bank Protection	1995
TV-03	Vermilion River Cutoff Bank Protection	1996
TV-04	Cote Blanche Hydrologic Restoration	1999
TV-14	Marsh Island Hydrologic Restoration	2001
TV-13a	Oaks/Avery Canals Hydrologic Restoration, Increment 1	2002
TV-15	Sediment Trapping at "The Jaws"	2004
TV-17	Lake Portage Land Bridge	2004
TV-18	Four Mile Canal Terracing and Sediment Trapping	2004

Table 3. Constructed CWPPRA projects neighboring the East Marsh Island Marsh Creation (TV-21) project area (Gillen 2008).



LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
 MIKE STRAIN D.V.M.
 COMMISSIONER



February 28, 2008

Ms. Melanie Magee
 Environmental Engineer
 Marine and Wetlands Section
 U.S. EPA, Region 6
 1445 Ross Avenue, Suite 1200
 Dallas, Texas 75202-2733

RECEIVED
 REGION 6
 FEB 29 PM 4:19
 WILSON
 CONSERVATION PROTECTION DIV.

Re: East Marsh Island Marsh Creation (TV-21)

Dear Ms. Magee:

The proposed East Marsh Island Marsh Creation project that EPA is proposing in cooperation with the USDA, NRCS is one that fits with our Soil and Water Conservation Districts' efforts toward coastal restoration and should provide positive impacts on the Louisiana coast. We support the project and should we be able to provide you any assistance please feel free to contact this office.

Sincerely,

Bradley E. Spicer, Assistant Commissioner
 LA Department of Agriculture and Forestry
 Office of Soil and Water Conservation
 5825 Florida Boulevard, Suite 1003
 Baton Rouge, LA 70806

Magee

United States Department of Agriculture



Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

318-473-7673
FAX: 318-473-7760

May 6, 2008

United States Environmental Protection Agency
Environmental Engineer, Melanie Magee
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Ms. Magee:

RE: SOLICITATION OF VIEWS
TV-21 E-A EAST MARSH ISLAND MARSH CREATION
IBERIA PARISH, LOUISIANA

2008 JUN -4 PM 12:13
ECOSYSTEMS PROTECTION

Thank you for providing our agency with the opportunity to respond to your letter wherein you requested our solicitation of views regarding the above project.

There is no prime farmland in the vicinity of any of this project and it appears the project will not impact any NRCS work in the immediate area. NRCS does not believe there will be an adverse effect on the surrounding environment provided appropriate erosion control measures are taken during construction. There may be a slight alteration to wetlands during construction. Mitigation may be required. NRCS recommends that the Project Sponsor contact the Corps of Engineers for determination of any requirements.

Should you have questions, please feel free to contact Charles Stemmans, District Conservationist in our New Iberia Field Office, at (337) 369-6623.

Sincerely,

E. J. Giering III, P.E.
State Conservation Engineer

Attachments

cc: Charles Stemmans, District Conservationist, New Iberia Field Office
Troy Mallach, Wildlife Biologist, WR-FOPSS, Lafayette, LA

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United States Department of Agriculture



Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7773
Fax: (318) 473-7747

August 1, 2008

Mr. Tim Landers
Environmental Protection Agency
Region VI
Water Quality Protection Division (6WQ-EMC)
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Mr. Landers:

RE: East Marsh Island Marsh Creation Project (TV-21)

I am in receipt of your request for an overgrazing determination for the East Marsh Island Marsh Creation Project (TV-21). I contacted our local district conservationist and our state grazing lands specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we anticipate a problem from domestic livestock once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. Britt Paul'.

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

cc: Randolph Joseph, Area Conservationist, NRCS, Lafayette, Louisiana
Charles Stemmans, District Conservationist, NRCS, New Iberia, Louisiana
Johanna Pate, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana
John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

March 11, 2008

Melanie Magee
Environmental Engineer
Marine and Wetlands Section
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Ms. Magee:

Please reference your February 19, 2008 letter (received in this office on February 25, 2008) requesting comments regarding potential issues that should be addressed in the forthcoming Environmental Assessment (EA) of the U.S. Environmental Protection Agency's (EPA) proposed East Marsh Island Marsh Creation (TV-21) project that would be located in Iberia Parish, Louisiana. That project, authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) (104 Stat. 4779; 16 U.S.C. 3951 *et seq.*), would involve creating approximately 191 acres of interior emergent marsh by hydraulically dredging material from East Cote Blanche Bay. The U.S. Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following comments in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 *et seq.*), the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*), the Migratory Bird Treaty Act (40 Stat. 755, as amended; 16 U.S.C. 703 *et seq.*) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Brown Pelican

We recommend potential project impacts to the endangered brown pelican (*Pelecanus occidentalis*) be addressed in the EA. Brown pelicans are currently known to nest on Raccoon Point on Isles Dernieres, as well as Queen Bess Island, Plover Island (Baptiste Collette), Wine Island, Rabbit Island in Calcasieu Lake, and islands in the Chandeleur chain. Pelicans change nesting sites as habitat changes occur; thus, they may also be found nesting on mud lumps at the mouth of South Pass (Mississippi River Delta) and on small islands in St. Bernard Parish. In spring and summer, nests are built in mangrove trees or other shrubby vegetation, although ground nesting may also occur. Brown pelicans feed along the Louisiana coast in shallow estuarine waters, using sand spits and offshore sand bars as rest and roost areas. Major threats to this species include chemical pollutants, colony site erosion, disease, and human disturbance. Should the proposed

project directly or indirectly affect brown pelicans, further consultation with this office will be necessary.

Colonial Nesting Birds

We recommend potential project impacts to colonial nesting birds be addressed in the EA. The proposed project would be located in an area where colonial nesting waterbirds may be present. Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

1. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, depending on species present).
2. For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the non-nesting period (i.e., September 16 through April 1, depending on species present).

In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

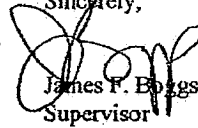
Wetlands

We recommend potential project impacts to wetlands be addressed in the EA. For a complete jurisdictional wetland delineation of the proposed project within Louisiana, please contact Mr. John Bruza (504/862-1288) at the New Orleans District Corps of Engineers (Corps). If the Corps determines that the proposed project is within their regulatory jurisdiction, official Service comments regarding wetland impacts will be provided in response to the corresponding Public Notice.

We appreciate the opportunity to provide these scoping-level comments on the proposed action. If you have any questions or require additional information on the proposed project, please contact Mr. Rob Smith (337/291-3134) of my staff.

Robert_V_Smith@FWS.gov

Sincerely,



James F. Boggs
Supervisor

Louisiana Field Office

cc: U.S. Army Corps of Engineers – Protection and Restoration Office / Restoration
Branch (Attn: Troy Constance), New Orleans, LA
LDWF – Natural Heritage Program, Baton Rouge, LA
Louisiana Dept. of Wildlife and Fisheries, Baton Rouge, LA
LDNR – Coastal Management Division (CMD), Baton Rouge, LA
LDNR – Coastal Restoration Division (CRD), Baton Rouge, LA
NOAA Fisheries (NMFS), Baton Rouge, LA
NRCS (Attn: Britt Paul), Alexandria, LA

State of Louisiana



KATHLEEN BABINEAU BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT
November 8, 2006

Ms. Cheraki D. Williams
Department of Culture, Recreation, and Tourism
Division of Archaeology
1051 N. Third Street, Rm 405
P.O. Box 44247
Baton Rouge, LA 70804-4247

Date: 11-29-06
No known archaeological sites or historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.
Pam Breaux
State Historic Preservation Officer

Re: Determination of cultural resources survey requirements for East Marsh Island Marsh Creation (TV-21) coastal restoration project

Dear Ms. Williams,

Thank you for taking the time on November 6, 2006 to speak with our project team regarding our East Marsh Island Marsh Creation (TV-21) coastal restoration project in Iberia Parish. As mentioned in the meeting, the goals of the project are to dredge material from East Cote Blanche Bay and use the material to restore a severely degraded area of marsh on the eastern portion of Marsh Island. The attached map shows the area where we will be conducting our sediment search. Our borrow area will be a fraction of the size of the search area shown on the attached map. We plan on dredging to a depth no greater than 10 feet below the current mud line to obtain this material.

The maps in your office show no known cultural resources in the area. This letter serves as a formal request to determine if a cultural resources survey is required for our project. If a full survey is necessary, please notify us at your earliest convenience so that we can initiate that task as soon as possible. Feel free to contact me at (225) 342-4122 or brad.miller@la.gov should you have any questions.

Sincerely,

Brad Miller
Project Manager

cc: Dain Gillen, Project Engineer
Syed Khalil, DNR Geologist
Maury Chatellier, Engineer Supervisor

10/27 3 2006

COASTAL ENGINEERING DIVISION
P.O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
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