



REPLY TO
ATTENTION OF

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

**FINDING OF NO SIGNIFICANT IMPACT
(FONSI)**

**Terrebonne Parish Non-Federal Levee System
Repairs, Replacements, Modifications, and Improvements
Terrebonne Parish, Louisiana**

EA #450

Description of the Proposed Action

The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, New Orleans District (MVN), proposes to raise and repair approximately 32,500 linear feet (6.1 miles) of existing levee near Dulac, Terrebonne Parish, LA approximately 8.5 miles south of Houma, LA. The existing levee was built and is maintained by the Terrebonne Parish Consolidated Government (TPCG) and has never been the subject of Federal action. The existing levee is divided into two reaches, known as Suzie Canal and Orange Street. The existing Suzie Canal reach starts approximately 100 feet north of the intersection of the Bob Town Bridge with Louisiana Highway 57 (Hwy 57) and follows in a southerly direction until approximately 100 feet north of the Combon Bridge. The existing Orange St. reach starts approximately 50 feet north of the intersection of LA. Hwy. 57 with Combon Bridge and follows in a southerly direction until it intersects with end of Orange St. The existing levee continues south past Orange Street, however the segment south of Orange Street is not in need of rehabilitation, and is not included in this project.

This Suzie Canal portion of this project follows the existing alignment in a southerly direction before reaching a pipeline canal. From this pipeline canal, the project alignment follows the "Suzie Canal Cutoff" alignment before intersecting the existing alignment. A borrow canal would also be constructed along the protected side of the "Suzie Canal Cutoff". The portion of the existing alignment that is cutoff would be left in place, and an access method would be provided by TPCG to the property owner. The project alignment then follows the existing alignment until reaching Bayou Butler. The "Bayou Butler no-work" zone separates the two project segments. The Orange Street portion of this project begins at the "Bayou Butler no-work zone" and follows the existing alignment in a southerly direction until reaching the end of

Orange Street. The Suzie Canal reach would be offset approximately 70 feet floodside from the centerline of the existing levee to the centerline of the proposed levee, requiring approximately 95 feet of additional right-of-way (ROW). The Orange Street reach would be offset approximately 85 feet floodside from the centerline of the existing levee to the centerline of the proposed levee, requiring approximately 111 feet of additional ROW.

Approximately 969,000 cubic yards of clay material would be required for the proposed levee project. The borrow material would be obtained from the J-1 borrow area, a 60-acre site owned by the Terrebonne Levee and Conservation District (TLCD). The borrow area is located off Aragon Road and adjacent to Bayou la Cache, near Montegut, LA. Material may also be obtained from the existing levee and adjacent borrow canal, if it is found to meet new USACE specifications for levees. Both the Suzie Canal and Orange Street levees would be raised to approximately +9.5 feet North American Vertical Datum 88 (NAVD88), with an approximately 10-foot wide crown and side slopes of 1-foot vertical on 3-feet horizontal (1V:3H). On the protected side, a stability berm would be retained under the existing levee footprint. The existing levee would be worked into the rehabilitated levee, and the existing borrow canal expanded. Where the rehabilitated levee fronts open water, a "berm" would be constructed with the intent to create new marsh substrate as mitigation for unavoidable wetland impacts. Approximately 650,000 cubic yards of material would be hydraulically dredged from Lake Boudreaux and placed into the fill areas at an initial fill elevation expected to settle to a final target elevation of approximately +1.5 to +2.0 feet NAVD88. The initial fill elevation to achieve the target post-settlement elevation, as well as the geometry of the containment dikes, would be determined during engineering phase and would be specified in the project plans and specifications. Containment dikes would be constructed to contain the dredged slurry within the fill areas.

NO-WORK ZONES: Four pipelines intersect the alignment, two essentially adjacent to each other. A drainage siphon, crossing under Bayou Butler connects the existing borrow canals that parallel the levees. A TPCG pump station, known as the D-08 pump station, is located on the Orange Street reach. To avoid impacting these structures, five no-work zones, including "Bayou Butler no-work zone" and "D-08 no-work zone", have been designated around these sites. The no-work zones range from 200 feet to 600 feet wide. The United States will bear no responsibility in these no-work zones. In agreement with the TPCG, the TPCG will be responsible for addressing protection in these no-work zones.

ACCESS ROADS: Access to the project vicinity would be from Hwy 57. Access to the Suzie Canal reach would be via a private driveway and Georgi Girl Lane. Access to the Orange Street reach would be via Panda Lane and Orange Street. All four access roads are less than a half of a mile long and all four provide a method of crossing the existing borrow canal. Where the crossings are deemed inadequate, the contractor would have the option of installing a temporary crossing, such as culverts and earthen fill. The contractor would also be given the option of installing a temporary crossing across Bayou Butler. All temporary crossings would be removed upon project completion.

ACCESS ROUTE: Material would be trucked to the site in either 14-20 cubic yard dump trucks or 24-30 cubic yard trailer bed trucks. The recommended haul is approximately 20 miles, and starts with the loaded haul truck at the J-1 borrow site. Upon leaving the borrow site, the route

follows Aragon Road south to LA Hwy 58, then follows LA Hwy 58 west to LA Hwy 56. From there, the route follows LA Hwy 56 North to Woodlawn Ranch Road, then follows Woodlawn Ranch Road west to LA Hwy 57, then south along LA Hwy 57 to the project site. Aragon Road, Woodlawn Ranch Road, and Louisiana State Highways 56 and 57 are all two lane paved roads linking business, residents and farms of rural Terrebonne Parish with each other and to the larger business community of Houma. The state highways currently have a weight restriction of 80,000 pounds.

In addition, the haul trucks would have to utilize bridges to cross over waterways along the proposed haul routes, including bridges having a maximum weight restriction of 40,000 pounds (20 tons). Thus, the project specifications would include stipulations that the Contractor would comply with all federal and state permits and regulations for the transportation of all materials and equipment required for the proposed project.

STAGING AREAS: There are two on site staging areas, the Bobtown Bridge staging area and the Orange Street staging area. The Bobtown Bridge staging area is located in the southwest quadrant of the intersection of the Bobtown Bridge and Hwy 57. The site is currently cleared but undeveloped. The Orange Street staging area is located on either side of Orange Street before it intersects with the Orange Street levee drainage canal. The Orange Street staging area is also cleared and is occasionally used by TPCG as a staging area for levee repairs.

LEVEE EMBANKMENT: A silt fence would be placed along the proposed levee toe on both the protected and flood sides of the levee to contain runoff material during construction activities. Silt fences would also be utilized to prevent sediments from entering Bayou Butler. Earthen material from the proposed borrow area would be placed onto the levee in multiple lifts and then compacted. Upon completion of the levee rehabilitation, all levee embankments and areas disturbed by the construction activities would be seeded with Bermuda grass, fertilized, and mulched. The “marsh berm” would be planted with marsh species. Silt fences and other temporary features would also be removed.

BORROW AREAS: The J-1 borrow site assessed in EA #406 was partially excavated in support of construction of a 2.7 mile reach of levee commonly referred to as Reach J-1. This levee could become a part of the larger Morganza to the Gulf federal project. The proposed project would utilize at maximum, approximately 60 acres of the previously unexcavated portion of the site. If sufficient suitable materials are available in the existing Terrebonne non-Federal levees at the project site, then it is anticipated that approximately 30 acres of the previously unexcavated portion of the J-1 borrow site would be used for the subject project. The area would be cleared and grubbed prior to excavation, and then excavated to a pit depth of approximately –20.0 feet NAVD88, with side slopes of 1V:4H.

Bulldozers would be utilized to clear the proposed borrow area of trees, scrub brush, other vegetation, and earthen material deemed not suitable for the levee enlargement project. The vegetation and unsuitable earthen material removed would all be temporarily stockpiled on-site. Groundwater seeping into the pit would be pumped out into adjacent areas. Excavators (i.e. backhoes) would remove the earthen material deemed suitable for the levee project, which would be processed within the borrow pits to reduce the moisture content within the soil. Moisture

content processing would be performed by mechanical methods such as utilizing bulldozers to stockpile materials and disks to further reduce the moisture content of the soil. Once the moisture content has been reduced to acceptable levels, haul trucks would be utilized to transport material to the levee. A truck wash down station would be utilized at the borrow site to prevent excessive tracking on the roads. In addition, the trucks would be slightly light-loaded and fitted with a covering tarp to prevent loss of material onto the roads.

After all suitable earthen material is removed from the pits, the vegetation removed during clearing and grubbing operations would be placed into the pit to provide potential cover habitat for wildlife and fisheries. Earthen material deemed to be unsuitable for the levee project or as embankment fill would be also placed into the pit along one side. The intent would be to create a shallow area where wetland plants may become established. All construction activities for the proposed project would be contained within the predetermined construction right-of-way.

MARSH CREATION FOR MITIGATION: After the levee work is completed, the second phase of the project is to create brackish marsh as mitigation for the unavoidable loss of the marsh habitats and scrub-shrub habitat with a marsh understory caused by the project action. Mitigation for bottomland hardwoods (BLH) would be achieved by the purchase of mitigation bank credits, or by planting BLH species on sufficient acreage to fully mitigate for the project action impacts. To create brackish marsh as mitigation, a project specific mitigation plan was developed for the creation of approximately 74 acres of marsh habitat in the open water areas adjacent to the newly constructed levee. The new marsh habitats would also serve to offset the loss of essential fish habitat (EFH), specifically existing tidal marsh, submerged aquatic vegetation, and open water areas designated by the National Marine Fisheries Service as EFH.

Approximately 8,675 feet of earthen containment dikes would be constructed with marsh buggy excavators using *in situ* material. The earthen containment dikes would be built to an approximate +4.0 feet NAVD88 elevation, and would tie into the new levee construction to create enclosed fill areas approximately 325 feet to 680 feet out from the toe of the levee. While the containment dikes are being constructed, marsh buggy excavators or similar equipment would be used to transport and place the dredge pipelines into the containment areas. The dredge pipelines would be transported through open water areas to avoid impacts to marsh habitat, and be appropriately lighted and marked for navigation safety.

Once the containment dikes are constructed and the pipelines are in place, a hydraulic dredge would be used to pump approximately 650,000 cubic yards of material from Lake Boudreaux into the fill areas at heights conducive for the creation of marsh habitat (slurry settlement height between +1.5 and +2.0 feet NAVD88). The dredged slurry would be allowed to settle within the containment areas naturally, or may be artificially dewatered utilizing spill boxes or similar structures placed in the containment dikes. If the dredged slurry is allowed to settle naturally, it is estimated to require 12 to 24 months for the process to occur. When the material is sufficiently settled, it would be planted with marsh species such as wiregrass (*Spartina patens*) and oyster grass (*Spartina alterniflora*). Then if necessary, the earthen containment dikes would be degraded to marsh elevation heights. The local sponsor will monitor and maintain the marsh berm, and will also purchase conservation easement on the marsh berm.

Factors Considered in Determination

This office has assessed the impacts on wetlands, water bodies, marsh, bottomland hardwoods, fisheries, essential fish habitat, wildlife, threatened and endangered species, cultural resources, socio-economics (transportation), recreational resources, aesthetics, and air quality. As compensatory mitigation for unavoidable loss of marsh habitat, a 74-acre marsh berm would be created adjacent to the toe of the levee where it fronts open water. Mitigation for bottomland hardwoods would be achieved by purchase of credits from a mitigation bank or by planting bottomland hardwood species on sufficient acreage to fully mitigate for the project action impacts. The risk of encountering hazardous, toxic, and radioactive waste is low. The U.S. Fish and Wildlife Service (USFWS) agreed that the proposed action is not likely to adversely affect any endangered or threatened species by _____ dated _____ 2008. This office has concurred with, or resolved, all U.S. Fish and Wildlife Service Coordination Act recommendations contained in a letter dated _____ 2008. This office has concurred with, or resolved, all Essential Fish Habitat recommendations contained in a letter dated _____ 2008 from the National Marine Fisheries Service. The Louisiana State Historic Preservation Officer (SHPO) agreed by fax stamped dated October 20, 2008 that the proposed project would have no effect on historic properties. The State of Louisiana, Department of Environmental Quality issued a water quality certification, # _____, under CWA Section 401 on _____ 2008 for the proposed project. A Public Notice was mailed out for review with the draft EA and draft FONSI on December 12, 2008. Review of the Section 404(b)(1) Evaluation has been completed and the Evaluation was signed on _____. In a letter dated _____ 2008 the Louisiana Department of Natural Resources concurred with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources program.

Environmental Design Commitments

The following commitments are an integral part of the proposed action:

1. If the proposed action is changed significantly, or is not implemented within one year, CEMVN will reinitiate coordination with the USFWS to ensure that the proposed action would not adversely affect any Federally listed threatened or endangered species, or their critical habitat.
2. Vegetation removed during the site clearing of the J-1 pit will be placed into the excavated pit to provide cover habitat for fisheries and wildlife species.
3. A truck wash down station would be utilized at the J-1 borrow site to prevent excessive tracking on the roads. In addition, the trucks would be slightly light-loaded and fitted with a covering tarp to prevent loss of material onto the roads.
4. If any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work will proceed in the area containing these cultural resources until a CEMVN-PM-RN archeologist has been notified and final coordination with the SHPO and Tribal Historic Preservation Officer has been completed.

5. Specifications will be written such that the contractor(s) will be required to use the following route: Aragon Road south to LA Hwy 58, west to LA Hwy 56, north to Woodlawn Ranch Road, west to LA Hwy 57, then south to the project site. Return to the borrow site will be the reverse of this route. The state highways currently have a weight restriction of 80,000 pounds (40 tons). In addition, the haul trucks would have to utilize bridges to cross over waterways along the proposed haul routes, including bridges having a maximum weight restriction of 40,000 pounds (20 tons). Thus, the project specifications would include stipulations that the Contractor would comply with all federal and state permits and regulations for the transportation of all materials and equipment required for the proposed project action.

6. The local sponsors, TLCD and TPCG would monitor and maintain the marsh berm. A Conservation Easement would be purchased by TPCG over the marsh berm to prevent any development.

Public Involvement

The proposed action has been coordinated with appropriate Federal, state, and local agencies, and businesses, organizations, and individuals through distribution of EA #450 for their review and comment. EA #450 is attached hereto and made part of this FONSI.

Conclusion

This office has assessed the potential environmental impacts of the proposed action. Based on this assessment, and a review of the public comments made on EA #450, a determination has been made that the proposed action would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

Draft

Date

Alvin B. Lee
Colonel, U.S. Army
District Commander