



Reach A, Hurricane and Storm Damage Risk Reduction Project Morganza to the Gulf of Mexico, Terrebonne Parish, Louisiana

Draft

Appendix F – 404(b)(1) Short Form Evaluation

February 2024

**404(b) Evaluation (Short Form) for the
Morganza to the Gulf, LA (MTG) Project, Hurricane and Storm Damage Reduction
System, Reach A**

The following short form 404(b) (1) evaluation follows the format designed by the U.S. Army Corps of Engineers, New Orleans District, Office of the Chief of Engineers (CEMVN-OCE). As a measure to avoid unnecessary paperwork, and to streamline regulation procedures, while fulfilling the spirit and intent of environmental statutes, CEMVN is using this format for all proposed project elements requiring a 404(b)(1) evaluation but involving no adverse significant impacts.

PROJECT DESCRIPTION. The proposed Morganza to the Gulf of Mexico, LA (MTG) Project, Hurricane and Storm Damage Risk Reduction System, Reach A consists of the construction of approximately 7.45 miles of levee embankment that begins in southwest Houma, approximately 0.5 miles southwest of the intersection of Highway 182 and Sportsman's Ct, and ends approximately 1.4 miles northwest of the town of Theriot in Terrebonne Parish. Project Construction is expected to take place in a series of sequential construction contracts within portions of Reach A. The design sections for the levee will vary along its alignment but will be built up to the 2085 design elevation of +17.0 feet. The levee would be constructed in multiple lifts with the first lift being constructed to elevation +6.0 feet and the second lift to the 2035 design elevation of +12.5 feet. Future lifts will bring the levee up to the 2085 design elevation of +17.0 feet. During construction of the first lift, the foundation for the full levee section would be constructed. The foundation features a geofabric reinforced sand base. Phase 1 entails construction of the levee section starting at Sta. 3512+00 and ending at Sta. 3684+00 of the authorized alignment and entails construction of a levee to a +6.0' elevation. Figure 1 provides an overview of the authorized federal alignment and the limits for phase 1 construction. See also Figure 5 for theoretical sections of the 2035 and 2085 design elevations if the proposed levee.

As shown in Figure 1, portions of the alignment cross the GIWW and Minors Canal. The proposed project elements requiring a 404(b) evaluation are located near these 2 locations, except for the proposed floodwall to be located to the south end of the alignment. Only features concerning discharge or placement of material on / or adjacent to these water bodies have been included in this review as well as any other construction activity that might result into a discharge near these 2 locations.

The levee system and other constructible features within Reach A, would be built with material to be excavated from borrow sites NFS-01, A60, A82, and NFS-A100. Some of the material will be hauled with dump trucks to the levee site via designated access roads or temporary roads, and other portions will be loaded onto barges for transport via the GIWW. An excavator would be used to

unload borrow material from the barges and stockpile it within the project ROW. Figures 2 and 3 show the locations of the borrow pits to be used.

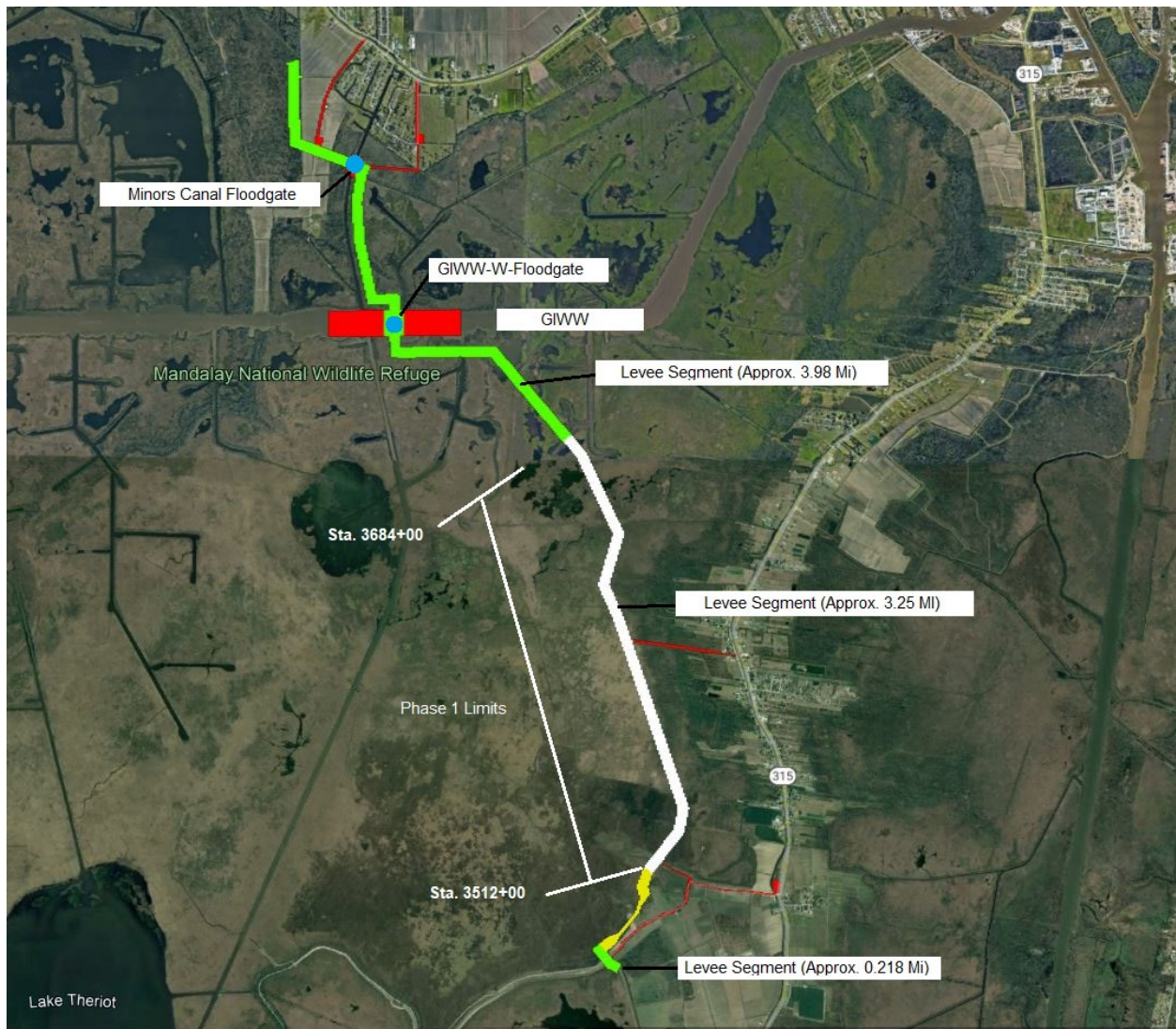


Figure 1. Project Map with Levee Alignment and Additional Constructible Features (Levee embankment features (green), levee embankment features phase I (white), Floodgates (blue), and south-end floodwall (yellow). Access roads shown in red.

Cross-sections of access roads are shown in Figure 4. Improvement of existing roads would include placement of surfacing material such as 4 inches of crushed stone. Construction of the new access road would include placement of two feet of sand topped with geotextile fabric and 7 inches of crushed stone. The portion of Access Road 3 which crosses wetland habitat would include installation of culverts under the road to allow unimpeded water flow. These culverts are estimated to be 24 inches in diameter and placed every 250 feet along the portion of road crossing wetland

habitat. The size, spacing, and bottom elevation of these culverts would be such that natural pre-project flow conditions within the area would be maintained.

There would be one staging area adjacent to Access Route 4a and would be 1.50 acres. The existing land is agricultural and approximately 6 inches of temporary stone would be placed to provide a dry area as needed within the staging area limits. Once the project is complete the area would be restored to original conditions. The staging area would be used for construction equipment and construction trailers.

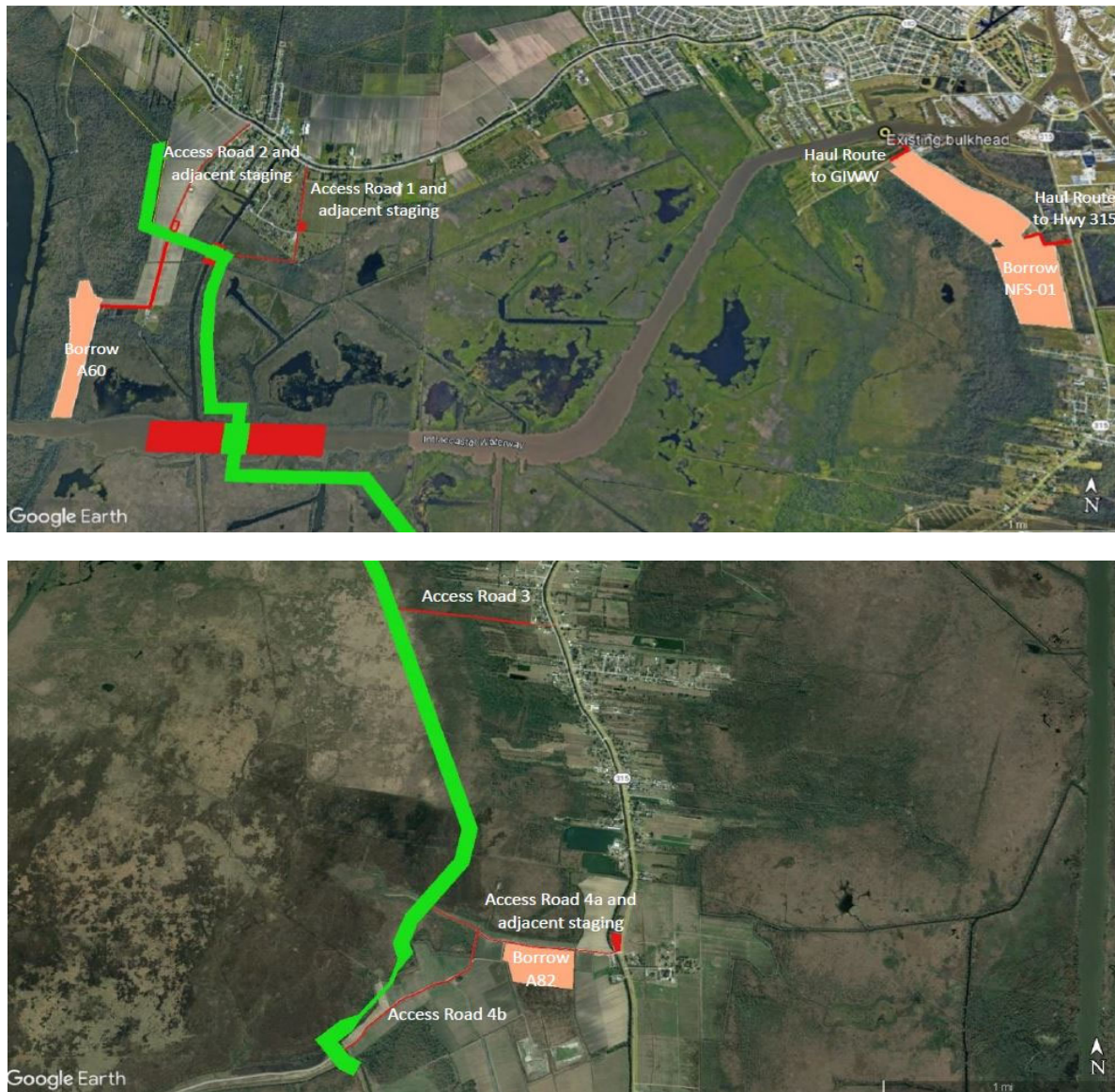


Figure 2. Designated borrow pits NFS-01, A60, and A82.



Figure 3. Designated borrow pit NFS-A100.

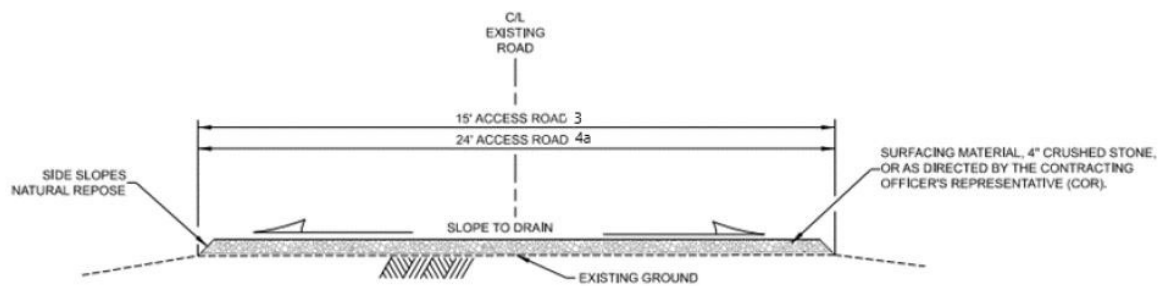


Figure 15. Cross-section of improvement of existing access roads

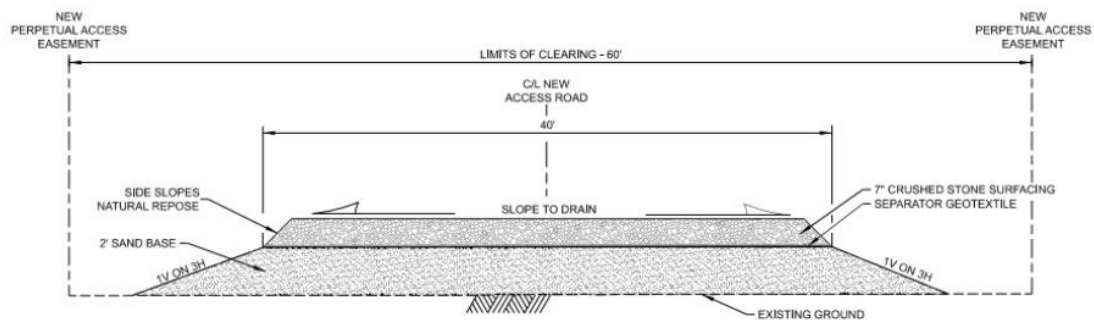


Figure 16. Cross-section of new access road

Figure 4. Cross Sections for Existing access roads improvements and new access roads.

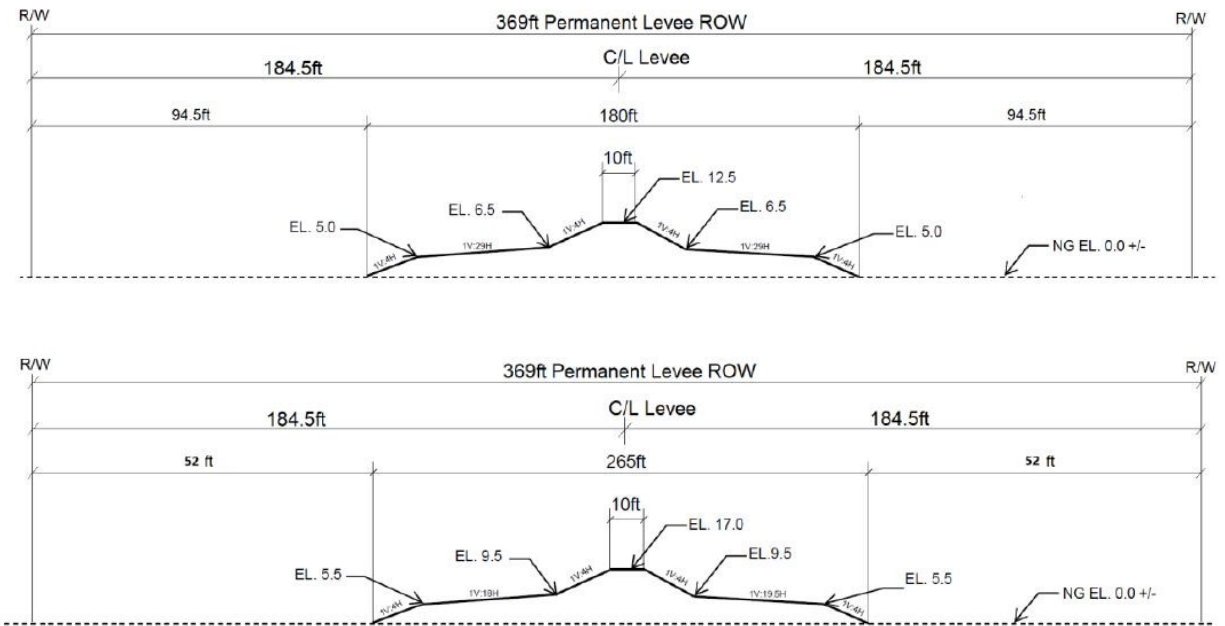


Figure 5. Theoretical Sections for the 2035 and 2085 design elevations.

In addition to the levee embankment the following constructible features are also included:

1. **Southern End Floodwall.** The southern portion of the alignment contains both environmentally sensitive habitat and potential active petroleum wells. A floodwall will be constructed in this area (yellow feature in Figure 1) to address these concerns. The approximate length of the floodwall will be 1,160 feet. The T-wall will be constructed on pile foundations with concrete base slabs and stems. It is anticipated that this floodwall will be constructed at grade minimizing the requirement for any significant excavation.

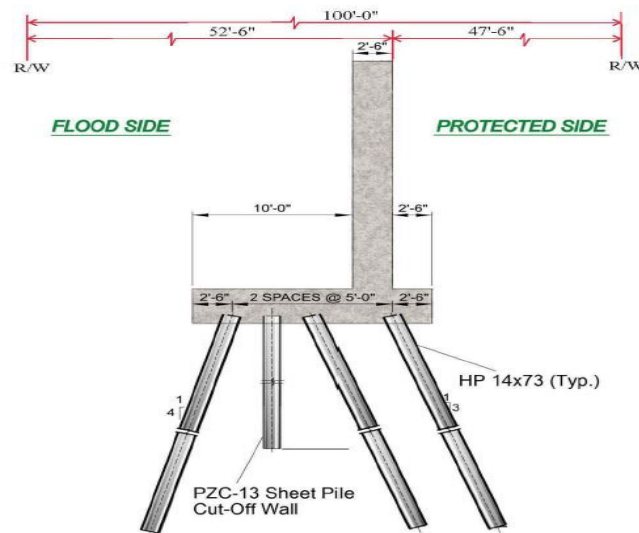


Figure 6. Southern End Floodwall Cross Section

The floodwall (see Figure 6) ties into the typical levee section on both ends and a six-inch concrete scour protection or grouted riprap would be used at the levee/T-wall transition. The concrete scour protection will wrap around the T-wall stem that extends into the full levee section and extend down both levee slopes. The scour protection will continue for 30 linear feet past the end of the T-wall. Uncapped cut-off sheet piling will extend horizontally 30 feet into the full levee section for erosion and seepage control.



Figure 7 Typical Scour Protection Feature

2. Construction of a floodgate on the GIWW

The GIWW-West floodgate is a 225-foot-wide sector gate type of structure to be located within Reach A specifically at mile 48 of the GIWW. A sector gate is a pie-slice structure that allows navigation to pass when the gate is in the open position within the gate bay recess of the structure. The floodgate would provide an opening in the system to allow unimpeded navigation, except when a tropical system approaches the Gulf of Mexico in which the gate would be closed. T-walls extend from the gate and tie into the adjacent levees with 650 total linear feet of T-walls. The floodwalls would have a top elevation of 16.5 NAVD88. Below is a sketch of a sector gate complex (Figures 8 and 9). For this review, only potential discharges resulting from specific construction activities near this area is being considered, which includes the tie-ins with the levee system and construction

of concrete scour protection on both sides of the levee which is adjacent to the GIWW. See also Figure 10 for Tie-in sections.

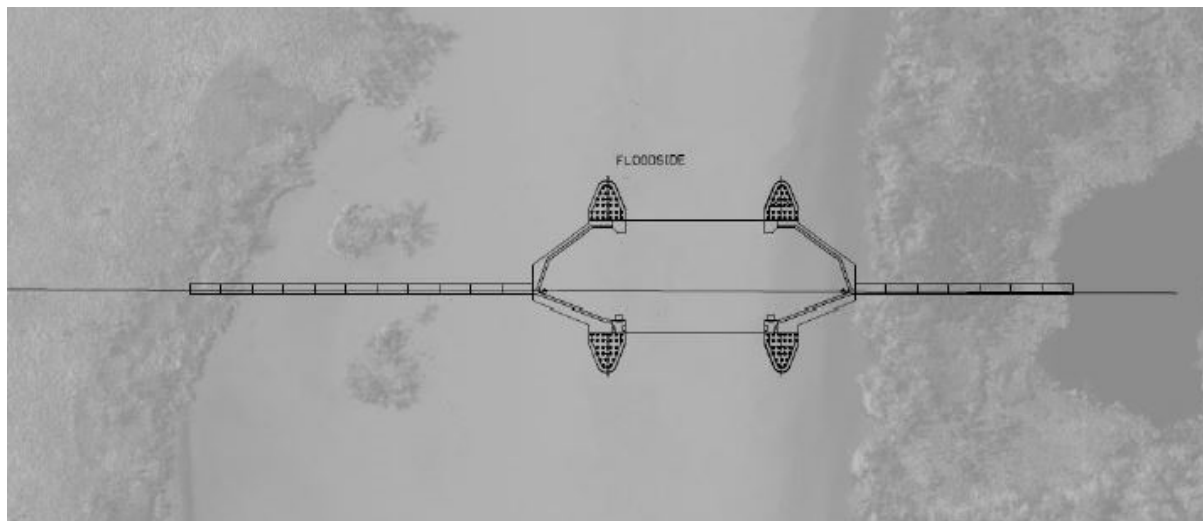
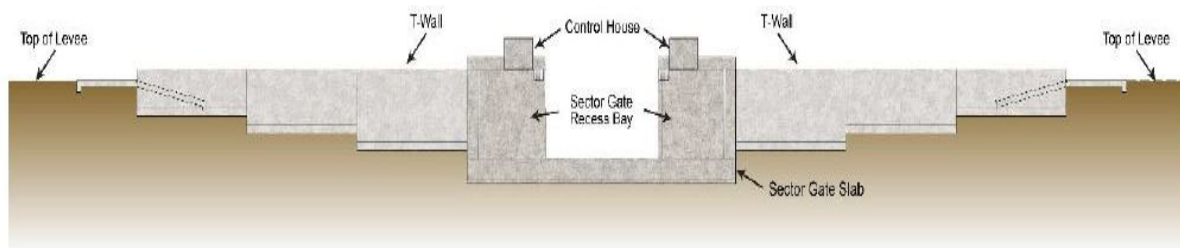


Figure 8. Conceptual Sketch of the Sector Gate Complex



Sector Gate - Elevation View - Open Position

Figure 9. Elevation View of Sector Gate. Tie-ins into the levees also depicted.

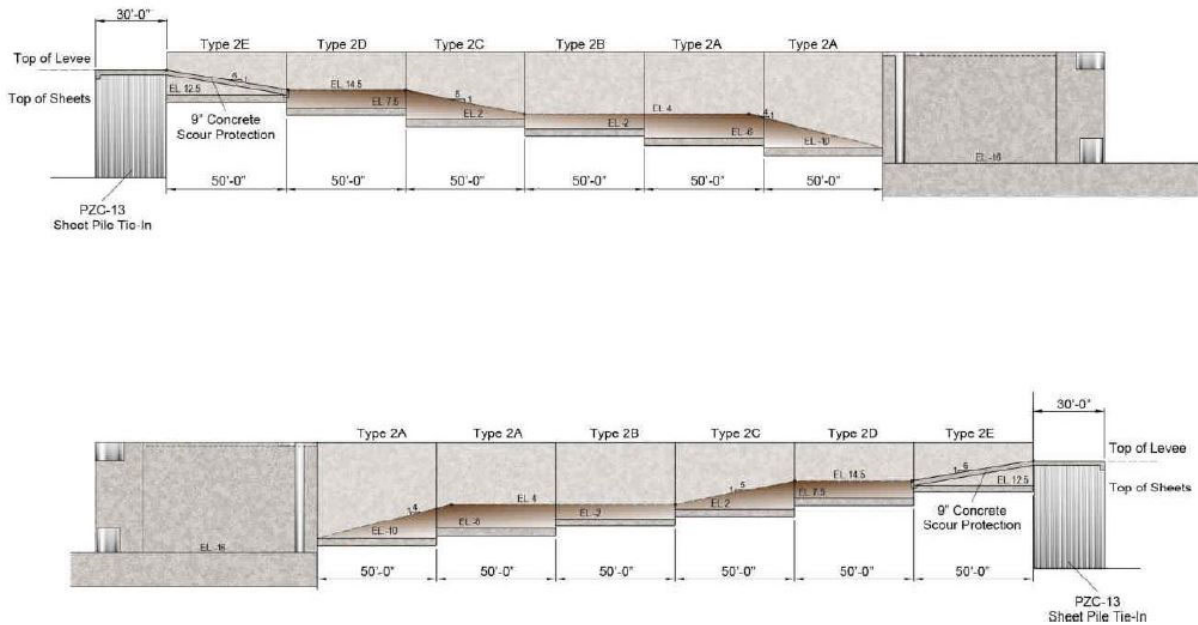


Figure 10. GIWW West Floodgate Tie-in Section

3. Construction of a Floodgate on Minors Canal.

This floodgate would be a 56-foot-wide barge type floodgate gate with a top elevation of 16.5 NAVD88, and a slab invert elevation of -9.0 NAVD88. The floodgate would provide an opening in the system to allow unimpeded navigation, except when a tropical system approaches the Gulf of Mexico in which the gate would be closed. T-walls extend from the gate and tie into the adjacent levees with 510 total linear feet of T-walls (255 linear feet on either side of the floodgate). The floodwalls would have a top elevation of 16.5 NAVD88.

Six-inch concrete scour protection or grouted riprap would be used at the levee/ T-wall transition. The concrete scour protection the levee where the T-wall stem extends into the full levee section and extend down both levee slopes. The scour protection would continue for 30 linear feet past the end of the T-wall. Uncapped cut-off sheet piling would extend horizontally 30 feet into the full levee section for erosion and seepage control. See the sketches below for wall layout and cross-sections. For this review, only potential discharges resulting from specific construction activities near this area is being considered, which includes the tie-ins with the levee system and construction of concrete scour

protection on both sides of the levee which is adjacent to Minors Canal. See figures 11 and 12 for Elevation view and Tie-in sections.

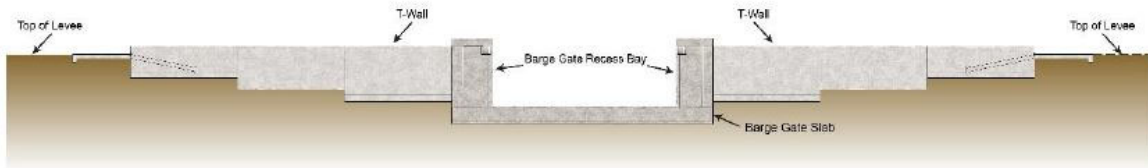


Figure 11. Elevation view of proposed floodgate at Minors canal.

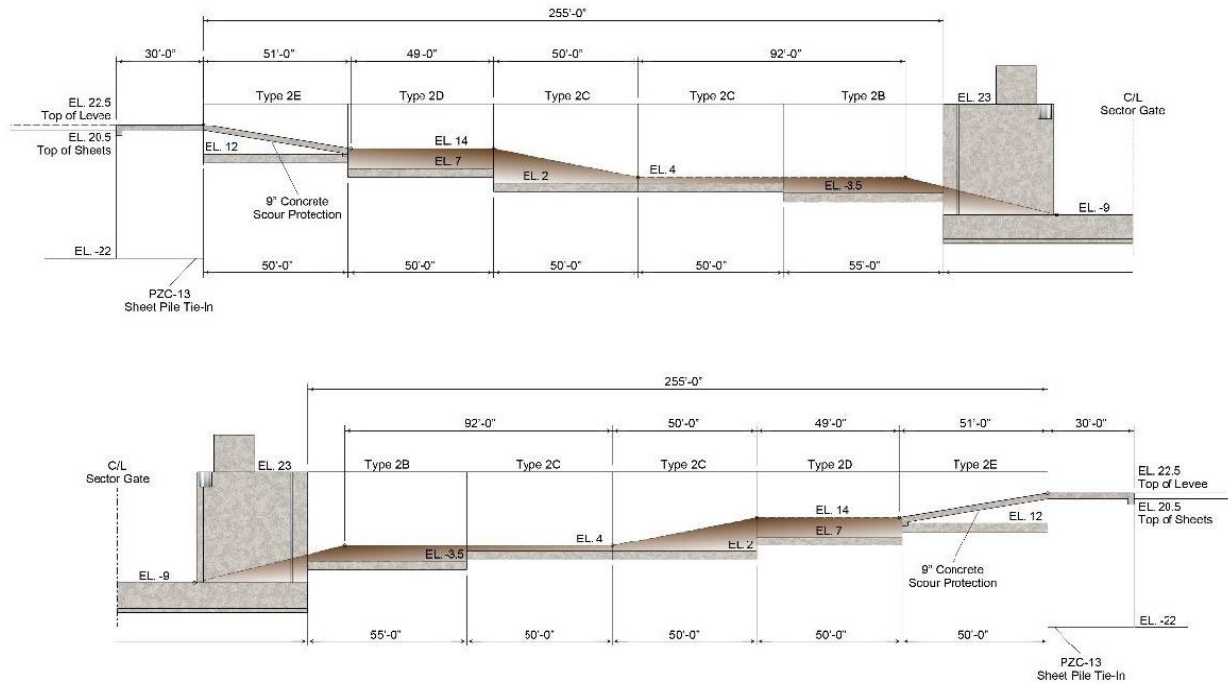


Figure 12. Minors Canal floodgate Tie-in section.

1. Review of Compliance (§230.10 (a)-(d))

A review of this project indicates that:

	Preliminary ¹		Final ²	
	Yes	No	Yes	No
a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative)				
b. The activity does not appear to: i. violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; ii. jeopardize the existence of Federally listed endangered or threatened species or their habitat; and iii. violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies)	x ⁴			
c. The activity will not cause or contribute to significant degradation of waters of the United States including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2)				
d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5)				

2. Technical Evaluation Factors (Subparts C-F)

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C)

- i. Substrate impacts
- ii. Suspended particulates/turbidity impacts.
- iii. Water column impacts
- iv. Alteration of current patterns and water circulation
- v. Alteration of normal water fluctuations/hydroperiod
- vi. Alteration of salinity gradients

N/A	Not Significant	Significant ^{3,5}
	x	
	x	
	x	
	x	
	x	
x		

b. Biological Characteristics of the Aquatic Ecosystem (Subpart D)

- i. Effect on threatened/endangered species and their habitat
- ii. Effect on the aquatic food web
- iii. Effect on other wildlife (mammals, birds, reptiles, and amphibians)

c. Special Aquatic Sites (Subpart E)

- i. Sanctuaries and refuges
- ii. Wetlands
- iii. Mud flats
- iv. Vegetated shallows
- v. Coral reefs
- vi. Riffle and pool complexes

d. Human Use Characteristics (Subpart F)

- i. Effects on municipal and private water supplies
- ii. Recreational and commercial fisheries impacts
- iii. Effects on water-related recreation.
- iv. Esthetic impacts
- v. Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves

	x	
	x	
	x	

3. Evaluation of Dredged or Fill Material (Subpart G)

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material.

- | | |
|---|-------------------|
| i. Physical characteristics | <u> x </u> |
| ii. Hydrography in relation to known or anticipated sources of contaminants | <u> x </u> |
| iii. Known, significant sources of persistent pesticides from land runoff or percolation | <u> x </u> |
| iv. Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances | <u> x </u> |
| v. Other public records of significant introduction of contaminants from industries, municipalities, or other sources | <u> </u> |
| vi. Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities | <u> </u> |
| vii. Other sources (specify) | <u> </u> |

Appropriate references: See Encl 2

b. An evaluation of the appropriate information in 3.a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or the material meets the testing exclusion criteria.⁶

Yes	No ³
x	

4. Disposal Site Delineation (§230.11(f))

- a. The following factors, as appropriate, have been considered in evaluating the disposal site.

i. Depth of water at disposal site	<u>x</u>
ii. Current velocity, direction, and variability at disposal site	<u>x</u>
iii. Degree of turbulence	<u>x</u>
iv. Water column stratification	<u>x</u>
v. Discharge vessel speed and direction	<u>x</u>
vi. Rate of discharge	<u>x</u>
vii. Dredged or fill material characteristics (constituents, amount, and type of material, settling velocities)	<u>x</u>
viii. Number of discharges per unit of time	<u> </u>
ix. Other factors affecting rates and patterns of mixing (specify)	<u> </u>

Appropriate references: See Encl 2

- b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or size of mixing zone are acceptable

Yes	No ³
x	

5. Actions to Minimize Adverse Effects (Subpart H)

All appropriate and practicable steps have been taken, through application of the recommendations of §230.70-230.77, to ensure minimal adverse effects of the proposed discharge

Yes	No ³

Actions taken:

6. Factual Determination (§230.11)

A review of appropriate information as identified in items 2-5 above indicates that there is minimal potential for short- or long-term environmental effects of the proposed discharge as related to:

- a. Physical substrate at the disposal site (review sections 2a, 3, 4, and 5 above)
- b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5)
- c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5)
- d. Contaminant availability (review sections 2a, 3, and 4)
- e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5)
- f. Disposal site (review sections 2, 4, and 5)
- g. Cumulative impact on the aquatic ecosystem
- h. Secondary impacts on the aquatic ecosystem

Yes	No ³
x	
x	
x	
x	

¹ Negative responses to three or more of the compliance criteria at this stage indicates that the proposed projects may not be evaluated using this "short form procedure". Care should be used in assessing pertinent portions of the technical information of items 2a-d, before completing the final review of compliance.

² Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.

³ A negative, significant, or unknown response indicates that the project may not be in compliance with the Section 404(b)(1) Guidelines.

⁴ For 1.b., review is for i. only (i.e., The activity does not appear to violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act)

⁵ Where a check is placed under the significant category, the preparer has attached explanation.

⁶ If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility

a. Prepared by:

Julio I. Vidal Salcedo
Civil Engineer
U.S. Army Corps of Engineers, New Orleans District
November 14, 2023

b. Reviewed by:

Whitney Hickerson
Hydraulic Engineer
U.S. Army Corps of Engineers, New Orleans District
November 17, 2023

8. Findings

- | | | |
|----|--|-------|
| a. | The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines | X |
| b. | The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the following conditions | _____ |
| c. | The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s): | _____ |
| | i. There is a less damaging practicable alternative | _____ |
| | ii. The proposed discharge will result in significant degradation of the aquatic ecosystem | _____ |
| | iii. The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem | _____ |

Date: _____

Chief, Environmental Planning and
Compliance Branch

**404(b) Evaluation (Short Form) for the
Morganza to the Gulf, LA (MTG) Project, Hurricane and Storm Damage Reduction
System, Reach A - Lake Salvador Marsh Creation**

The following short form 404(b) (1) evaluation follows the format designed by the U.S. Army Corps of Engineers, New Orleans District, Engineering Division (CEMVN-ED). As a measure to avoid unnecessary paperwork, and to streamline regulation procedures, while fulfilling the spirit and intent of environmental statutes, CEMVN is using this format for all proposed project elements requiring a 404(b)(1) evaluation but involving no adverse significant impacts.

PROJECT DESCRIPTION. The proposed action is for the mitigation efforts for Reach A project marsh impacts, and it consists of an intermediate / fresh marsh creation area within Lake Salvador. Approximately 255 AC is being proposed within an open water area along the southern edge of Lake Salvador and north of the Gulf Intercoastal Waterway (GIWW), approximately Mile 26.0, within Lafourche Parish, Louisiana. Construction of the proposed marsh platform would take place during a period of three years and would involve a series of lifts or phases to achieve final design. Figure 1 depicts total footprint of the project.

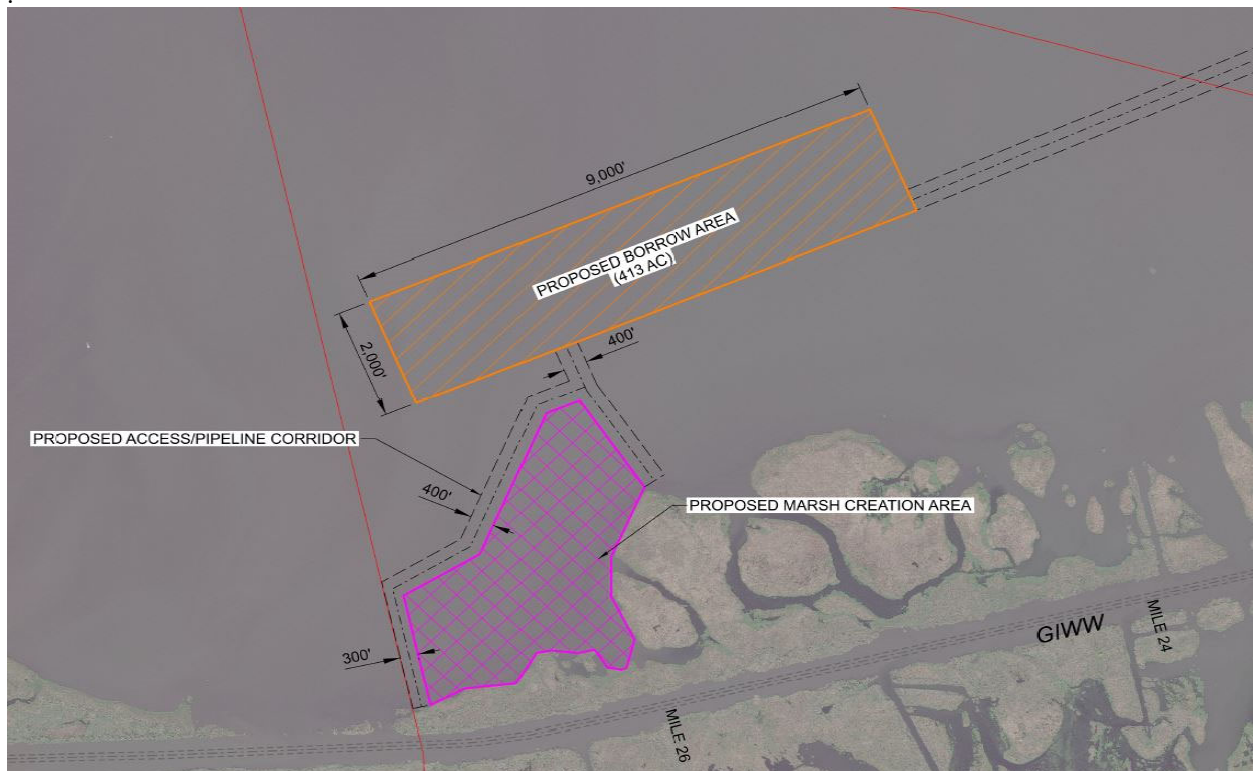


Figure 1. Overview of the proposed 255 AC of Marsh Creation Area (Pink) within Lake Salvador for the mitigation efforts for Morganza to the Gulf of Mexico, LA, Hurricane and Storm Damage Risk Reduction System, Reach A.

For the 404(b) evaluation the following project features are included as part of the construction activities that would take place within the project limits:

1. **Earthen Perimeter Dikes.** These are meant to contain the dredged slurry that will be pumped inside the marsh platform once completed and will be constructed from onsite borrow adjacent to the dikes. Perimeter dikes facing the lake have been designated as front dikes and will require stone armoring to protect against the lake fetch. Dikes located along the existing marsh have been designated as back dikes and will not be armored. The adjacent borrow for dike construction will be located 40-ft from the interior toe of dike with an allowable 80-ft bottom width and a maximum excavation elevation of -12.0 ft. Containment dikes will be constructed with a 5-ft wide crown and 1:4 side slopes that transition down to existing grade. The perimeter dikes will be constructed to a crown elevation of +4.0' to contain dredge slurry and provided a minimum of 1.5-ft of freeboard. These perimeter dike dimensions will be part of the initial construction.

The estimated borrow material required for the initial perimeter dike construction is approximately 190,000 CY for the front dikes and 100,000 CY for the back dikes. Borrow for the front dike may come from an exterior lake side adjacent borrow to reduce impacts to the interior marsh platform and will be considered once borings, geotechnical analysis, and survey are conducted.

2. **Earthen Cross Dikes.** Construction of interior earthen cross dikes will take place to form multiple cells within the marsh platform to optimize placement of the dredged material throughout the area. Borrow material for the cross dikes will come from onsite adjacent borrow at a 40-ft setback from the cross dikes toe. The adjacent dike borrow will have an allowable 80-ft bottom width with assumed 1:3 side slopes that transition up to existing grade(s). A maximum excavation elevation of -12.0-ft for the adjacent dike borrow will be allowed. Cross dikes will be constructed with a 5-ft wide crown and 1:4 side slopes that transition down to existing grade. The cross dikes will be constructed to a crown elevation of 1.5-ft to 2.0-ft with the intent that some dredged slurry will convey to the adjacent cell, while containing most material in the intended cell. The estimated borrow material required for the initial cross dike construction is approximately 30,000 CY.
3. **Lake Salvador Borrow Area.** The material for the construction of the marsh creation platform(s) is dredge material obtained at a proposed borrow location in Lake Salvador. The proposed borrow site is approximately 413 acres. The maximum excavation depth of the proposed borrow site will be to elevation -20.0'. Material at this borrow area will be dredged via hydraulic cutterhead and pumped to the marsh sites via floating pipeline through open waters that conveys to the project site. The estimated pump distance is 2,000-ft to 6,000-ft.
4. **Effluent Discharge Point / Spill Box.** Each cell will have an effluent discharge point with spill boxes that will drain into Lake Salvador. The purpose of the spill box is to drain out the water from inside the cells. Suspended material will be present in the effluent discharge due to the nature of the process but most of it will end up deposited near the discharge points (inside and outside the cell) facing the lake. Suspended material contained within the effluent

discharge will be composed mainly of fine particles. Spill boxes will be removed once the final marsh platform lift is completed.

- 5. Marsh Platform and Lifts.** The first lift will take place after construction of the dikes and installation of the spill boxes is complete. The first lift will pump dredged slurry material into the marsh creation site to a uniform fill elevation of +0.5-ft. The estimated borrow material required for the 1st lift is approximately 2,900,000 CY.

1st Stone Armoring. After completion of the first lift, the front dikes will be stone armored to protect the new marsh platform until the next marsh platform lift a year later. Stone for armoring will be 600-lb stone placed on top of 300-psi geotextile separator fabric. The estimated quantity for stone and geotextile is approximately 39,840 TONS and 44,600 SY respectively.

Second Marsh Platform Lift. A second lift of 2.0-ft will take place a year after completion of the first lift and after settlement has occurred. The perimeter dikes centerline will be shifted to the interior and additional dike construction will take place to bring the elevations back to +4.0-ft. The estimated borrow required for the front and back dike earthen lifts is approximately 129,000 CY and 64,000 CY respectively. In addition, a 2-ft cap over all cross dikes will be constructed to achieve an elevation of +1.5' to +2.0'. The estimated borrow required for the 2-ft cap of the cross dikes is approximately 8,000 CY. Once all dike lifts/caps are complete, the Contractor will commence with the second marsh platform lift. The second lift will pump dredged slurry material into the marsh creation site to a uniform fill elevation of +1.5-ft. The estimated borrow material required for the marsh creation site for the 2nd lift is approximately 1,745,000 CY.

2nd Stone Armoring. After the completion of the second marsh platform lift, the front containment dikes will receive a 2-ft stone armoring cap to protect the new marsh platform until the next marsh platform lift a year later. Stone for armoring will be 600-lb stone placed on top of 300-psi geotextile separator fabric. The estimated quantity for stone and geotextile is approximately 42,000 TONS and 16,000 SY respectively.

Third Marsh Platform Lift. A third lift will take place a year after completion of the 2nd lift. A 2.0-ft to 2.5-ft stone cap to elevation +4.5-ft will be constructed on the front perimeter dikes (based on settlement assumptions). The estimated stone required to cap the front dike is approximately 23,000 TONS. The back dike will receive a 2-ft earthen lift. The estimated borrow required to lift the back dike is approximately 31,000 CY. Once all dike caps/lifts are complete, the Contractor will commence with the third marsh platform lift. The third lift will pump dredged slurry into the marsh creation site to a uniform fill elevation of +2.5-ft. The estimated borrow material required for the marsh creation site for the 3rd lift is approximately 1,563,000 CY.

Perimeter Dike Degrade. One year after the completion of third marsh platform lift the back dikes will be degraded down to elevation +1.0-ft to match the surrounding marsh elevation. The estimated degrade quantity is approximately 11,000 CY. Degraded dike material will be

disposed of within the marsh creation areas at any low locations where the adjacent dike borrow was excavated.

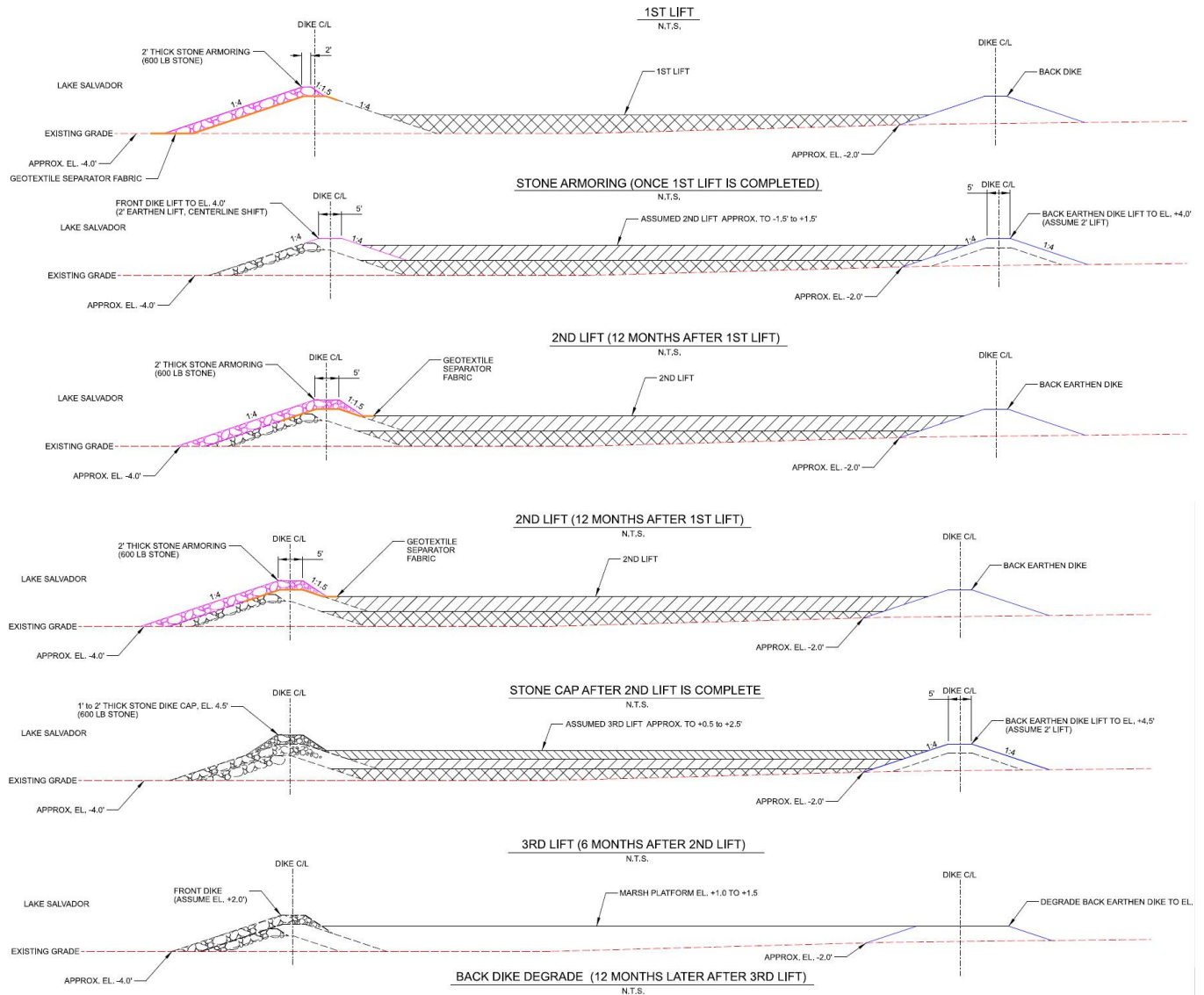


Figure 2. Theoretical Sections for the proposed Marsh Platform and lifts. Three 5-inches soil borings and three CPTs would be taken at a depth of 200 feet and at the approximate locations shown on Figure 3.

1. Review of Compliance (§230.10 (a)-(d))

A review of this project indicates that:

	Preliminary ¹		Final ²	
	Yes	No	Yes	No
a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative)				
b. The activity does not appear to: i. violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; ii. jeopardize the existence of Federally listed endangered or threatened species or their habitat; and iii. violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies)	x ⁴			
c. The activity will not cause or contribute to significant degradation of waters of the United States including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2)				
d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5)				

2. Technical Evaluation Factors (Subparts C-F)

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C)

- i. Substrate impacts
- ii. Suspended particulates/turbidity impacts.
- iii. Water column impacts
- iv. Alteration of current patterns and water circulation
- v. Alteration of normal water fluctuations/hydroperiod
- vi. Alteration of salinity gradients

N/A	Not Significant	Significant ^{3,5}
	x	
	x	
	x	
	x	
	x	
x		

b. Biological Characteristics of the Aquatic Ecosystem (Subpart D)

- i. Effect on threatened/endangered species and their habitat
- ii. Effect on the aquatic food web
- iii. Effect on other wildlife (mammals, birds, reptiles, and amphibians)

c. Special Aquatic Sites (Subpart E)

- i. Sanctuaries and refuges
- ii. Wetlands
- iii. Mud flats
- iv. Vegetated shallows
- v. Coral reefs
- vi. Riffle and pool complexes

d. Human Use Characteristics (Subpart F)

- i. Effects on municipal and private water supplies
- ii. Recreational and commercial fisheries impacts
- iii. Effects on water-related recreation.
- iv. Esthetic impacts
- v. Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves

	x	
	x	

3. Evaluation of Dredged or Fill Material (Subpart G)

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material.

- | | |
|---|---------------|
| i. Physical characteristics | <u>x</u> |
| ii. Hydrography in relation to known or anticipated sources of contaminants | <u>x</u> |
| iii. Known, significant sources of persistent pesticides from land runoff or percolation | <u>x</u> |
| iv. Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances | <u>x</u> |
| v. Other public records of significant introduction of contaminants from industries, municipalities, or other sources | <u> </u> |
| vi. Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities | <u> </u> |
| vii. Other sources (boring data, geotechnical investigation report) | <u>x</u> |

Appropriate references: See Encl 2

b. An evaluation of the appropriate information in 3.a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or the material meets the testing exclusion criteria.⁶

Yes	No ³
x	

4. Disposal Site Delineation (§230.11(f))

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

i. Depth of water at disposal site	<u> x </u>
ii. Current velocity, direction, and variability at disposal site	<u> x </u>
iii. Degree of turbulence	<u> x </u>
iv. Water column stratification	<u> x </u>
v. Discharge vessel speed and direction	<u> x </u>
vi. Rate of discharge	<u> x </u>
vii. Dredged or fill material characteristics (constituents, amount, and type of material, settling velocities)	<u> x </u>
viii. Number of discharges per unit of time	<u> </u>
ix. Other factors affecting rates and patterns of mixing (specify)	<u> </u>

Appropriate references: See Encl 2

b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or size of mixing zone are acceptable

Yes	No ³
x	

5. Actions to Minimize Adverse Effects (Subpart H)

All appropriate and practicable steps have been taken, through application of the recommendations of §230.70-230.77, to ensure minimal adverse effects of the proposed discharge

Yes	No ³

Actions taken:

6. Factual Determination (§230.11)

A review of appropriate information as identified in items 2-5 above indicates that there is minimal potential for short- or long-term environmental effects of the proposed discharge as related to:

- a. Physical substrate at the disposal site (review sections 2a, 3, 4, and 5 above)
- b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5)
- c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5)
- d. Contaminant availability (review sections 2a, 3, and 4)
- e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5)
- f. Disposal site (review sections 2, 4, and 5)
- g. Cumulative impact on the aquatic ecosystem
- h. Secondary impacts on the aquatic ecosystem

Yes	No ³
x	
x	
x	
x	

¹ Negative responses to three or more of the compliance criteria at this stage indicates that the proposed projects may not be evaluated using this "short form procedure". Care should be used in assessing pertinent portions of the technical information of items 2a-d, before completing the final review of compliance.

² Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.

³ A negative, significant, or unknown response indicates that the project may not be in compliance with the Section 404(b)(1) Guidelines.

⁴ For 1.b., review is for i. only (i.e., The activity does not appear to violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act)

⁵ Where a check is placed under the significant category, the preparer has attached explanation.

⁶ If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility

a. Prepared by:

Julio I. Vidal Salcedo
Civil Engineer
U.S. Army Corps of Engineers, New Orleans District
February 07, 2024

b. Reviewed by:

Whitney Hickerson
Hydraulic Engineer
U.S. Army Corps of Engineers, New Orleans District
February 07, 2024

8. Findings

- | | | |
|----|--|-------|
| a. | The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines | X |
| b. | The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the following conditions | _____ |
| c. | The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s): | _____ |
| | i. There is a less damaging practicable alternative | _____ |
| | ii. The proposed discharge will result in significant degradation of the aquatic ecosystem | _____ |
| | iii. The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem | _____ |

Date: _____

Chief, Environmental Planning and
Compliance Branch

References

- a. Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). 2023. Coastal Louisiana Basins.
https://lacoast.gov/new/about/basin_data/ba/default.aspx
- b. Lamar, J.E. and H.B. Willman. 1938. A Summary of the Uses of Limestone and Dolomite. Report of Investigations—No. 49. Urbana, IL: Illinois State Geological Survey. <https://core.ac.uk/download/pdf/17354971.pdf>
- c. Louisiana Department of Environmental Quality (LDEQ). 2023. Fishing Consumption and Swimming Advisories.
<https://deq.louisiana.gov/page/fishing-consumption-and-swimming-advisories>
- d. Louisiana Department of Environmental Quality (LDEQ). 2022. Louisiana Water Quality Inventory: Integrated Report (Clean Water Act Sections 305(b)/303(d)).
https://www.deq.louisiana.gov/assets/docs/Water/Integrated_Report/2022_Integrated_Report/22_IR1_Master_Text_FINAL_For_ATTAINS_Corrections_8-22.pdf
- e.
- f. Louisiana Watershed Initiative (LWI). 2023. Watershed Regions.
<https://watershed.la.gov/watershed-regions>
- g. United States Coast Guard (USCG). 2023. National Response Center. <https://nrc.uscg.mil/>