

# **BIOLOGICAL EVALUATIONS FORM ATTACHMENTS**



## 1- Schedule

Construction activities are anticipated between September 2020 and February 2021.

- September 2020
  - Mobilization of on-island construction equipment
  - Installation of turbidity control measures
  - Construction of containment dikes
  - Mobilization of hydraulic dredge
- October 2020
  - Construction of containment dikes
  - Hydraulic dredging and placement of fill on island
- November 2020
  - Construction of containment dikes
  - Hydraulic dredging and placement of fill on island
- December 2020
  - Hydraulic dredging and placement of fill on island
- January 2021
  - Hydraulic dredging and placement of fill on island
  - Demobilization of hydraulic dredge
  - Gapping of containment dikes
- February 2021
  - Gapping of containment dikes
  - Demobilization of on-island construction equipment
  - Turbidity control measure removal

\*\* Complete containment dike construction is expected to take approximately 36 days. Based on typical dredging industry capacities, it is expected that the complete dredging duration could last as few as 33 days, rather than the 4 months shown above. The above schedule depicts a conservative duration estimate which utilizes the full available working window. \*\*

## 2- Describe the proposed action

The Rabbit Island Restoration Project (CS-0080) is one of the six selected projects in the Final Restoration Plan as set forth by the Louisiana Trustee Implementation Group (TIG) in January 2017 (TIG, 2017). As stated in the Final Restoration Plan,

*“The DWH oil spill also caused unprecedented injury to birds in Louisiana. Therefore, the Louisiana TIG is moving forward with E&D on the following tow bird island restoration projects under the “Replenish and Protect Living Coastal and Marine Resources” Restoration*

*Goal...Because of the limited funds available for the first RP, the two selected restoration projects offer an opportunity to quickly and effectively begin restoring for avian injuries in two locations along Louisiana's coast. Additionally, Rabbit Island and Queen Bess Island are high priorities for Louisiana at this time due to the significant erosion occurring at those two sites. Any further delays in restoring these islands would likely lead to greater loss of land, making it infeasible and less cost effective or even impractical to implement those projects at a later date, potentially resulting in the permanent loss of these important bird rookeries."*

The project area is located in Region 4, the Calcasieu-Sabine Basin, Cameron Parish, approximately 4.7 miles northwest of Cameron within the south-western portion of Calcasieu Lake (Figure 1). The coordinates of the approximate project center are 29°50'58.47"N, 93°22'58.72"W. Rabbit Island is considered important habitat since there are only a limited number of colonial-nesting waterbird rookeries remaining in Louisiana (TIG, 2017). Rabbit Island is the most western colonial waterbird colony within the State of Louisiana and is the only pelican nesting habitat west of the Atchafalaya River in Louisiana. Since 1955, Rabbit Island has experienced significant habitat loss, with reports indicating that the island has been reduced in size by at least 89 acres, or 31%. Figure 2 shows the footprint of Rabbit Island 2017.

Most of Rabbit Island's remaining 200 acres are either open water, or land that is at or below sea level. This low elevation is subject to frequent inundation due to impacts by wind-driven waves and tidal affects from the Calcasieu Ship Channel. Therefore, the island no longer provides the critical colonial-nesting waterbird habitat it once did. As such, the purpose of this project is to restore and enhance nesting bird habitat on the island through the strategic placement of dredged material and potentially shoreline protection structures for enhanced protection. The final island elevation(s) will need to be high enough to provide suitable habitat for nesting birds and to combat RSLR over the 20-year project lifespan. However, the final island elevation must also be low enough to be feasible to construct and cost-efficient.

*Describe in detail the construction equipment and methods*

On-island construction equipment will consist of marsh buggies. These will be transported to Rabbit Island via deck barges maneuvered by tug boats or shallower-drafting crew boats. Small work boats will also be used to access the site. Borrow material will be excavated in the Calcasieu Ship Channel using a hydraulic cutterhead dredge. Material will be pumped via pipeline through Joe's Cut and across West Cove to Rabbit Island within a delineated 140 ft wide access route (Figure 3). This access corridor will be bordered by Type II turbidity curtains as a measure to keep sediment plumes from impacting nearby oyster seed grounds. On-island activities will include construction of containment dikes along the perimeter of Rabbit Island using marsh buggy excavators (Figure 4). Material will be sourced from borrow channels adjacent to the dikes, with

an offset to avoid slope stability issues. Marsh buggies will likely also be used on the island to move the dredge pipe outfall.

Long term vs. short term impacts; duration of impacts

Short term impacts include construction activities via mechanical equipment on Rabbit Island for up to approximately 6 months. Ingress and egress of marsh buggies may also impact water bottoms within the access corridor; the maximum distance buggies are expected to track is 624 ft within West Cove east of Rabbit Island. Long term impacts include improved nesting habitat for Brown Pelicans on Rabbit Island.

Dust, erosion, and sedimentation controls; restoration areas

Given the nature of the project area, dust is not expected to be a concern during construction. The  $D_{50}$  of the material within the preferred borrow area ranges from 0.156 mm to 0.187 mm. It is not expected that any turbid waters caused by dredging activities will migrate a considerable distance from the borrow area. Likewise, dredge material placed on the island is expected to settle rapidly on the island, given its grain size distribution. Turbidity concerns from dredge outfall pipe will be addressed in a number of ways: Existing vegetation on the island will help facilitate settling of dredge material on the island; Silt fences will be used along tidal creeks and ponds to capture solids that do not settle before reaching such features; Lastly, Type II turbidity curtains will be used to contain any turbidity caused by vessels accessing Rabbit Island through the delineated access route.

If the project is growth-inducing or facilitates growth

This project will help facilitate optimal Brown Pelican nesting on Rabbit Island.

Whether the project is part of a larger project or plan

This project is part of the Louisiana Natural Resource Damage Assessment Trustee Implementation Group - Final Restoration Plan #1.

What permits will need to be obtained?

A Coastal Zone Management Act Consistency Determination (C20180122) and a Section 10/404 Department of the Army Permit (MVN-2018-01009-WLL) have been obtained.

3- Dredging or digging (Provide details about dredge type (hopper, cutterhead, clamshell, etc.), maximum depth of dredging, area (ft<sup>2</sup>) to be dredged, volume of material (yd<sup>3</sup>) to be produced, grain size of material

August 30, 2019

Borrow material will be excavated from the Calcasieu Ship Channel via hydraulic cutterhead dredge. Maximum depth of cut is -67 ft NAVD88. Currently, a total cut volume of 428,327 CY has been calculated. The preferred borrow area includes an available borrow quantity of 707,000 CY.  $D_{50}$  of the material within the preferred borrow area ranges from 0.156 mm to 0.187 mm.

*Sediment testing for contamination, spoil disposition plans, and hydrodynamic description (average current speed/direction).*

This work has not been performed for this project.

*If digging in the terrestrial environment, please describe fully with details about possible water jetting, vibration methods to install pilings for dune walk-over structure, or other methods. If using devices/methods/turtle relocation dredging to relocate sea turtles then describe the methods here.*

N/A

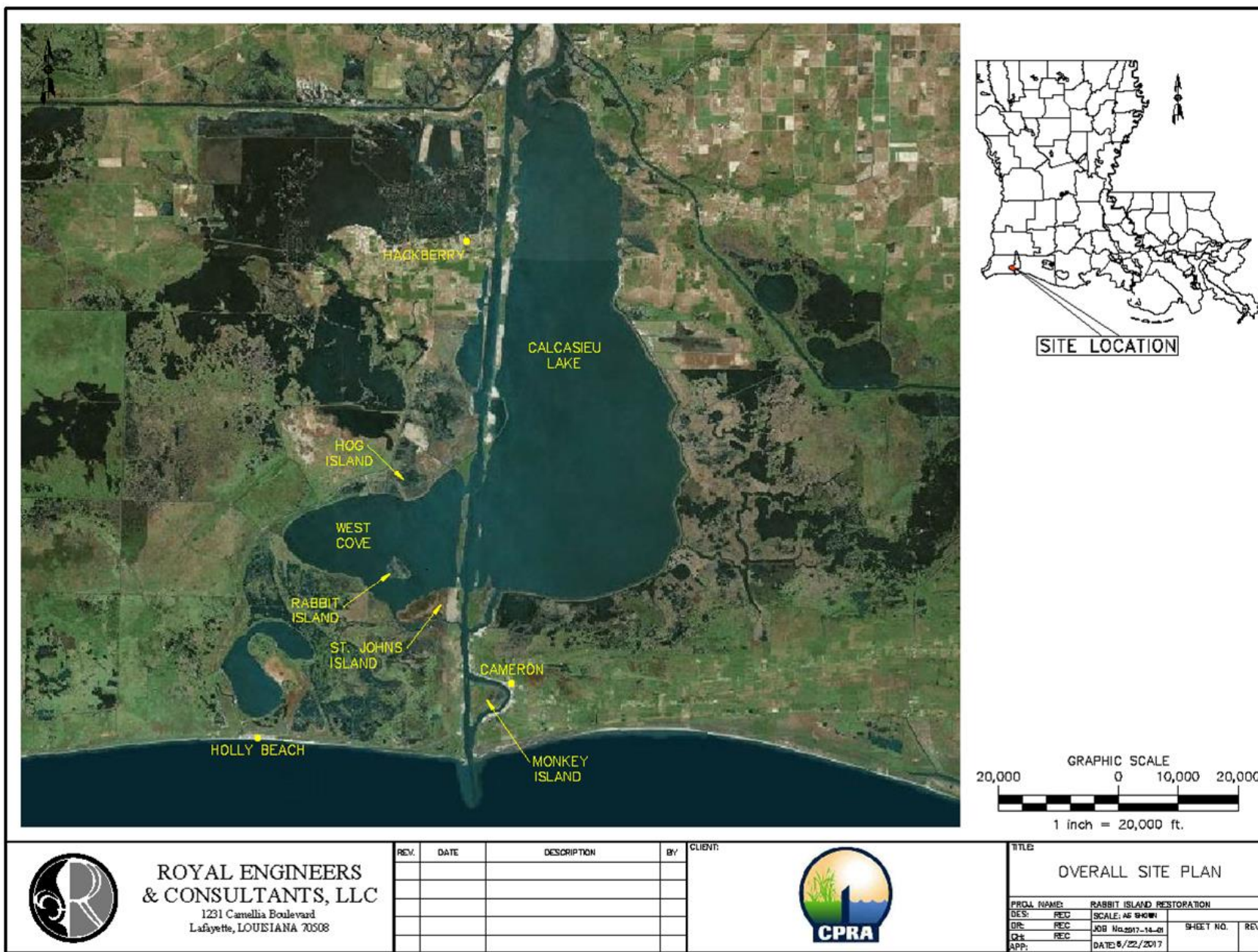


Figure 1. Vicinity Map



**Figure 2.** Rabbit Island- 1998 Shoreline (Red) vs 2017 Shoreline (Yellow) (Google Earth, 2018)

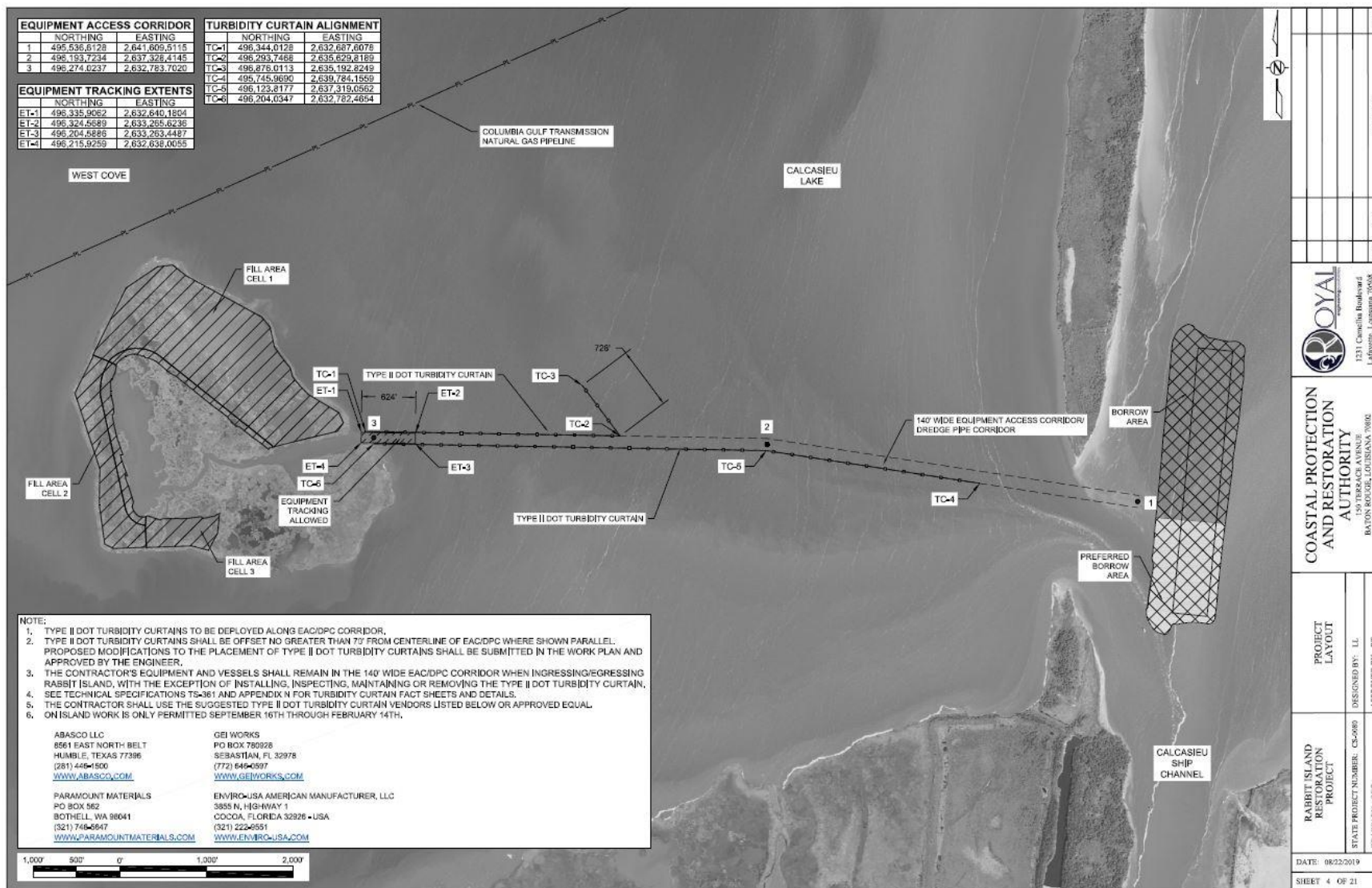


Figure 3. Access Route



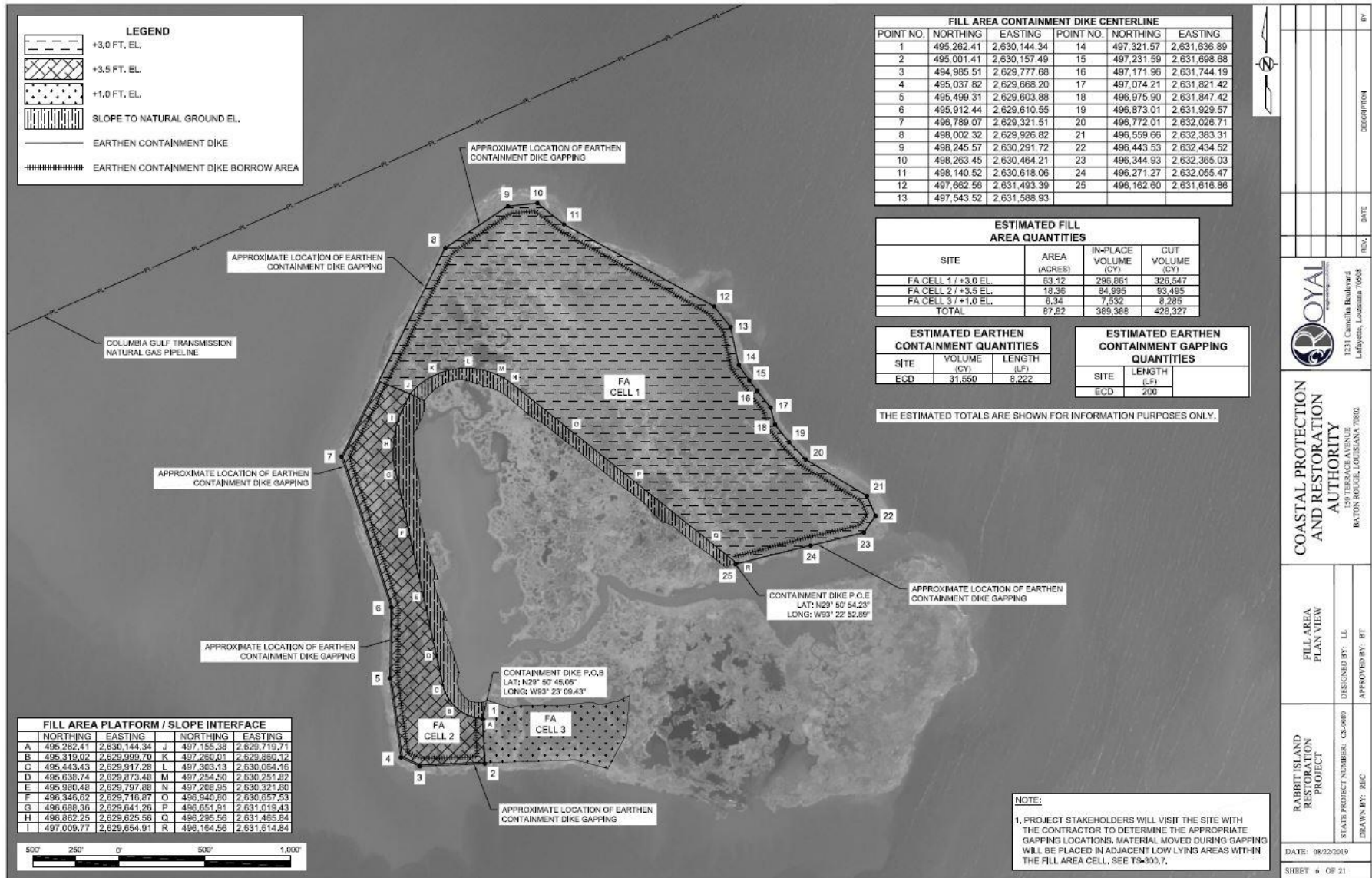


Figure 4. Rabbit Island Fill Area

ROYAL  
131 Canche Boulevard  
Lafayette, Louisiana 70508

COASTAL PROTECTION AND RESTORATION AUTHORITY  
150 TERRACE AVENUE  
BATON ROUGE, LOUISIANA 70802

FILL AREA PLAN VIEW  
DESIGNED BY: LL  
APPROVED BY: BT

RABBIT ISLAND RESTORATION PROJECT  
STATE PROJECT NUMBER: CS-6088  
DRAWN BY: REC

DATE: 08/22/2019

SHEET 6 OF 21

## PDARP/PEIS Chapter 6 – Appendix A – Best Management Practices

### **Birds**

#### **Migratory Birds**

- Use care to avoid birds when operating machinery or vehicles near birds.
- During the project design phase, coordinate with the USFWS and the state trust resource agency to site and design projects to avoid or minimize impacts to migratory bird nesting habitats or important feeding/loafing areas.
- If vegetation clearing is necessary, clear vegetation outside the migratory bird nesting season (approximately mid-February through late August) or have a qualified biologist inspect for active nests. If no active nests are found, vegetation may be removed. If active nests are found, vegetation may be removed after the nest successfully fledges.
- Avoid working in migratory bird nesting habitats during breeding, nesting, and fledging (approximately mid-February through late August). If project activities must occur during this timeframe and breeding, nesting, or fledging birds are present, contact the state trust resource agency to obtain the most recent guidance to protect nesting birds or rookeries, and their recommendations will be implemented. Conservation areas may already be marked to protect bird nesting areas. Stay out of existing marked areas.

#### **Piping Plover**

- Provide all individuals working on a project with information in support of general awareness of piping plover presence and means to avoid birds and their critical or otherwise important habitats.

### **Mammals**

#### **Bottlenose Dolphin**

- For projects with any in-water construction activities, dredging, or wetland/barrier island creation and nourishment, follow the most current version of the NMFS Southeast Region's *Measures for Reducing Entrapment Risk to Protected Species*.
- For projects that enhance recreational and commercial vessel based activities, follow NMFS's *Southeast U.S. Marine Mammal and Sea Turtle Viewing Guidelines*.

### **Tortoises/Turtles**

#### **Sea Turtle**

- In Water Implement the following guidelines: NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* (revised March 23, 2006), NMFS's *Measures for Reducing Entrapment Risk to Protected Species* (revised May 22, 2012) and NMFS's *Vessel Strike Avoidance Measures and Reporting for Mariners* (revised February 2008).

### **Invasive Species**

- Implement an Integrated Pest Management (IPM) approach to facility design, sanitation, and maintenance to prevent and control invasive and pest species.
- Inspect sites, staging, and buffer areas for common invasive species prior to the onset of work. Map any invasive species detected and note qualitative or quantitative measures regarding abundance.
- Implement a control plan, if necessary, to ensure these species do not increase in distribution or abundance at a site due to project implementation. Inspect sites periodically to identify and

control new colonies/individuals of an invasive species not previously observed prior to construction.

- Prior to bringing any equipment (including personal gear, machinery, vehicles, or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present, clean the equipment, vehicles, or personal gear until they are free from mud, soil, seeds, and vegetation. Inspect the equipment, vehicles, and personal gear each time they are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species.
- Have the appropriate state agency inspect any equipment or construction materials for invasive species prior to use.
- Inspect and certify propagated or transplanted vegetation as pest and disease free prior to planting in restoration project areas.

## **General Construction Measures**

### **Protected Species**

- Provide all individuals working on a project with information in support of general awareness of and means to avoid impacts to protected species and their habitats present at the specific project site.
- Survey for other at-risk or imperiled species. If found on site, contact the USFWS and state trust resource agency to determine if avoidance or minimization measures or a Candidate Conservation Agreement with Assurances may be appropriate.

### **Maintenance and Conduct**

- Develop and implement a spill prevention and response plan, including conducting daily inspections of all construction and related equipment to ensure there are no leaks of antifreeze, hydraulic fluid, or other substances and cleaning and sealing all equipment that would be used in the water to rid it of chemical residue. Develop a contract stipulation to disallow use of any leaking equipment or vehicles.

### **Wetland and Aquatic Resource Protection**

- Complete an engineering design and post-construction inspection for projects where geomorphic elevations are restored in wetlands, marshes, and shallow water habitats to ensure the success of the restoration project. Manage elevation of fill material to ensure projected consolidation rates are accomplished and that habitat suitable for wetland and marsh vegetation is developed.
- Avoid and minimize, to the maximum extent practicable, placement of dredged or fill material in wetlands and other aquatic resources.
- Design construction equipment corridors to avoid and minimize impacts to wetlands and other aquatic resources to the maximum extent practicable.
- To the maximum extent possible, implement the placement of sediment to minimize impacts to existing vegetation or burrowing organisms.

### **Land and Vegetation Protection**

- Develop and implement an erosion control plan to minimize erosion during and after construction and where possible use vegetative buffers (100 feet or greater), revegetate with native species or annual grasses, and conduct work during dry seasons.

- Prohibit use of hazardous materials, such as lead paint, creosote, pentachlorophenol, and other wood preservatives during construction in, over or adjacent to, sensitive sites during construction and routine maintenance.
- Where landscaping is necessary or desired, use native plants from local sources. If non-native species must be used, ensure they are noninvasive and use them in container plantings.
- Apply herbicide in accordance with the direction and guidance provided on the appropriate U.S. Environmental Protection Agency (EPA) labels and state statutes during land-based activities.
- Evaluate methods prior to dredging to reduce the potential for impacts from turbidity or tarballs. Perform maintenance of generators, cranes, and any other stationary equipment operated within 150 feet of any natural or wetland area, as necessary, to prevent leaks and spills from entering the water.
- Use silt fencing where appropriate to reduce increased turbidity and siltation in the project vicinity. This would apply to both on land and in water work.
- Upon completion of construction activities, restore all disturbed areas as necessary to allow habitat functions to return.
- Incorporate containment levees for fill cells for projects using marsh creation or other barrier island restoration. Remove these containment levees after construction to allow for the restoration of natural tidal exchange.
- Make all efforts to reduce the peak sound level and exposure levels of fish to reduce the potential impact of sound on fish present in the project areas.



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400 LEAKE AVENUE  
NEW ORLEANS, LOUISIANA 70118-3561  
AUG 26 2019

RECEIVED

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CPRA

Operations Division  
Western Evaluation Section

SUBJECT: MVN-2018-01009-WLL

Coastal Protection and Restoration Authority (CPRA)  
150 Terrace Avenue  
Baton Rouge, LA 70802

Gentlemen:

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Western Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

Darrell S. Barbara  
Chief, Western Evaluation Section

Enclosures

## DEPARTMENT OF THE ARMY PERMIT

Permittee: Coastal Protection and Restoration Authority (CPRA)

Permit No.: MVN-2018-01009-WLL

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Enhance colonial bird rookery habitat by increasing elevations of the existing Rabbit Island through dredging water bottom sediments from a 24 acre borrow site in Calcasieu Ship Channel and depositing those sediments to the proposed elevations. in accordance with the drawings attached in eight sheets, dated August 14, 2018.

Project Location: In West Cove of Calcasieu Lake approximately 2.5 miles west of the Calcasieu Ship Channel in Cameron Parish, LA (29.84917 N, -93.38361 W).

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **August 31, 2024**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: See Pages 4 and 5**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

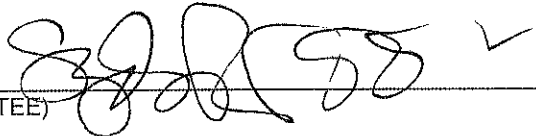
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

x   
(PERMITTEE)

x 8/20/19  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Darrell S. Barbara

8/26/2019  
(DATE)

Darrell S. Barbara, Chief, Western Evaluation Section  
for Stephen F. Murphy, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)



**SPECIAL CONDITIONS: MVN-2018-01009-WLL**

7. If the authorized project requires any additional work within waters of the U.S. not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
8. That any excavated and/or fill material placed within wetlands must be free of contaminants, to the best of the permittee's knowledge.
9. The permittee must install and maintain, at his expense, any safety lights and signals prescribed by the US Coast Guard, through regulations or otherwise, on the authorized facilities.
10. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
11. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
12. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.
13. Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. Your project involves dredging and/or placement of fill, therefore, you must contact the local municipal and/or parish governing body regarding potential impacts to floodplains and compliance of your authorized activities with local floodplain ordinances, regulations or permits.
14. If the authorized project requires additional work not expressly permitted herein, or include modifications in the scope of the authorized plan, the permittee shall obtain an amendment and/or separate permit review and decision, prior to commencement of those changes. All work shall be confined to the permitted work area(s) represented in the attached drawings. Mechanized land clearing or filling in wetlands and/or special aquatic sites for access or project construction, unless expressly permitted herein, is not authorized.
15. The permittee shall degrade the containment dikes to authorized elevations, congruent with the elevation of the respective cell, within six months after the fill placement is completed or within the following non-nesting season.

**SPECIAL CONDITIONS: MVN-2018-01009-WLL**

16. The permittee shall adhere to the attached monitoring schedule titled CS-80 Rabbit Island Restoration- Post Construction Schedule. Associated reports shall be forwarded to CEMVN Regulatory in accordance with the prescribed inspections, to be submitted under this permit number.

17. The permittee understands and agrees that if more than 20% of the survey measurements in any disposal area exceed the target elevation by more than six inches, additional actions to achieve the desired elevations may be required. Following a review of the monitoring reports, the regulatory and natural resource agencies will determine if remedial actions are necessary. Such actions could include grading of higher elevation areas to the target elevation or compensatory mitigation.

18. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment fencing, wooden or vinyl barriers, and/or seeding of disturbed areas. These techniques should be maintained in effective operating condition until a point that sediment runoff from construction activities is controlled and maintained.

19. The permittee is advised of the requirements set forth in the attached Memorandum for Record and the associated special conditions. All responsibilities and compliance related to the subject conditions are hereby directed to and have oversight by the USACE Navigation Office, Operations Manager, ODC, Mrs. Tracy Falk, with this District. Should you have any questions on the requirements and restrictions stipulated, you shall contact the specified Operations Manager, who may be reached at 504-862-2971 or [tracy.a.falk@usace.army.mil](mailto:tracy.a.falk@usace.army.mil)

20. The permittee shall adhere to the attached Manatee Special Conditions for In Water Use.

## **STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES**

During in-water work in areas that potentially support manatees, all personnel associated with the project shall be instructed and aware of the potential presence of manatees, manatee speed zones, and the need to avoid collisions with, and injury to, manatee. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel shall be instructed not to attempt to feed or otherwise interact with the animal.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). To minimize potential impacts to manatees in areas of their potential presence, the permittee shall insure the following are adhered to:

- All work, equipment, and vessel operation shall cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project shall operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels shall follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers shall be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- Temporary signs concerning manatees shall be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½" X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½" X 11" shall be posted at a location prominently visible to all personnel engaged in water-related activities and shall read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".
- Collisions with, injury to, or sightings of manatees shall be immediately reported to the U.S. Fish and Wildlife Service's, Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

MEMORANDUM FOR RECORD: Chief, Regulatory Branch ATTN: Michael Hermann

SUBJECT: CPRA - Rabbit Island Restoration Project – Dredging of Calcasieu River - MVN-2018-01009-WLL

1. The Operations Manager for Calcasieu River navigation project (ODC) has reviewed the application from CPRA in regards to their Rabbit Island Restoration Project including dredging of Calcasieu River, in Cameron Parish, Louisiana.
2. It has been determined that the subject application is within the Calcasieu River navigation servitude but is outside of the navigation fairway limits. Therefore, this request has no impact to the usefulness of the project and will not be injurious to the public interest.

The scope of this analysis for Section 408 is limited to the federal limits of the Federal Navigation Channel. The application does not require a Section 408 permission in regards to impacts to the Calcasieu River, navigation project.

3. ODC has no objections to the subject request provided the following navigation conditions are included as part of the Section 10 permit document.
  - a. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein.
  - b. Permittee shall closely coordinate all scheduling of proposed dredging work with the Operations Manager of the Calcasieu River (Tracy Falk) to assure no contractual conflicts arise between multiple dredging activities
  - c. Permittee shall provide its solicitation package to showing the selected burrowed area footprint, along with a cross section within the authorized navigation channel to USACE Engineering Division (CEMVN-EDC) for review and comment prior to procurement of bids and coordination of federal and state work packages should be closely coordinated in meetings.
  - d. Should the proposed structure or authorized work cause an obstruction or hazard to navigation, the applicant will be required, upon due notice from the Corps of Engineers, to remove, relocate or alter the work at their own expense.
  - e. The applicant will, at his or her expense, install and maintain any safety light, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.
  - f. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.

- g. The applicant understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said work shall cause unreasonable obstruction to the free navigation of the navigable waters, the applicant will be required upon due notice from the Corps of Engineers, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

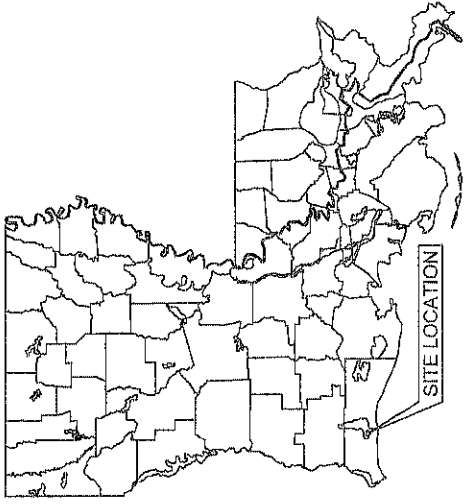
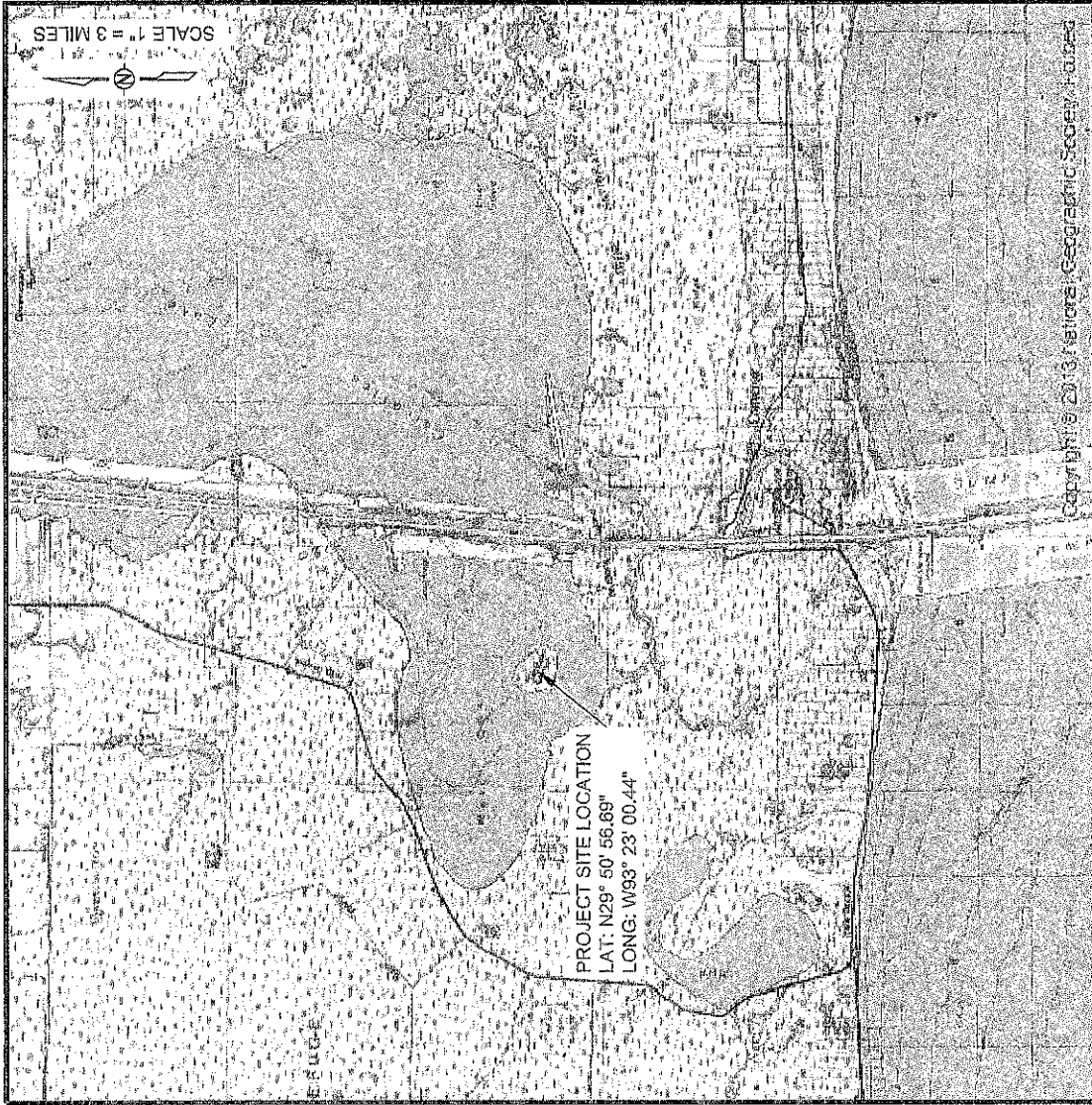
If you have any questions, please contact Michael Sullivan at 504-862-2373.

Sincerely,

SULLIVAN.MICHAEL.DAVID.1249725729  
HAEL.DAVID.1249725729

Digitally signed by  
SULLIVAN.MICHAEL.DAVID.1249725729  
DN: c=US, o=U.S. Government, ou=DoD,  
ou=PKI, ou=USA,  
cn=SULLIVAN.MICHAEL.DAVID.1249725  
729  
Date: 2019.03.26 13:25:09 -05'00'


For  
Tracy Falk  
Operations Manager  
Operations Division

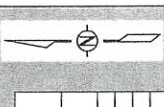


SHEET INDEX

- 1 - VICINITY MAP
- 2 - FILL AREA PLAN VIEW
- 3 - FILL AREA TYPICAL SECTION
- 4 - BORROW AREA PLAN VIEW
- 5 - BORROW AREA TYPICAL SECTION
- 6 - ACCESS ROUTE PLAN VIEW
- 7 - DREDGE PIPELINE TYPICAL SECTION
- 8 - GENERAL NOTES

THESE DRAWINGS WERE PREPARED EXCLUSIVELY FOR OBTAINING REGULATORY APPROVALS AND DO NOT PURPORT TO BE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	 ROYAL ENGINEERS	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	RABBIT ISLAND RESTORATION	VICINITY MAP
DRAWN BY: REC	DESIGNED BY: LL	APPROVED BY: BT	STATE PROJECT NUMBER: CS-0080 FEDERAL PROJECT NUMBER: CS-0080	DATE: 08/14/2018 SHEET 1 OF 8



ESTIMATED FILL AREA QUANTITIES			
SITE	VOLUME (CY)	AREA (ACRES)	AREA (ACRES)
FA CELL 1 / +3.0 EL.	294,990	69.28	69.28
FA CELL 2 / +3.5 EL.	59,369	13.96	13.96
FA CELL 3 / +3.0 EL.	154,137	42.56	42.56
SLOPE TO NATURAL GROUND EL.	28,373	12.31	12.31

ESTIMATED EARTHEN CONTAINMENT QUANTITIES			
SITE	VOLUME (CY)	LENGTH (LF)	AREA (ACRES)
ECD	50,160	12,866.77	12.08

THE ESTIMATED TOTALS ARE SHOWN FOR INFORMATION PURPOSES ONLY.

**LEGEND**

+3.0 FT. EL.

+3.5 FT. EL.

SLOPE TO NATURAL GROUND EL.

MHW

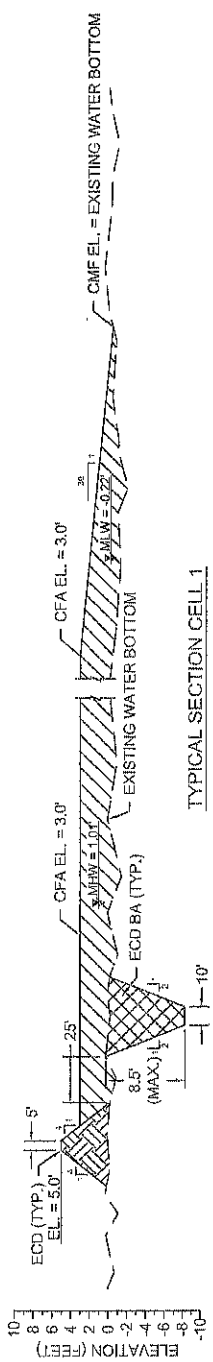
MLW

CENTERLINE OF LEVEE

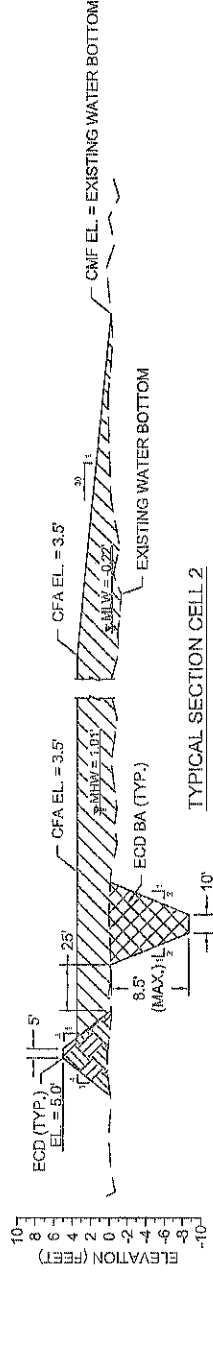


THESE DRAWINGS WERE PREPARED EXCLUSIVELY FOR OBTAINING REGULATORY APPROVALS AND DO NOT PURPORT TO BE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.

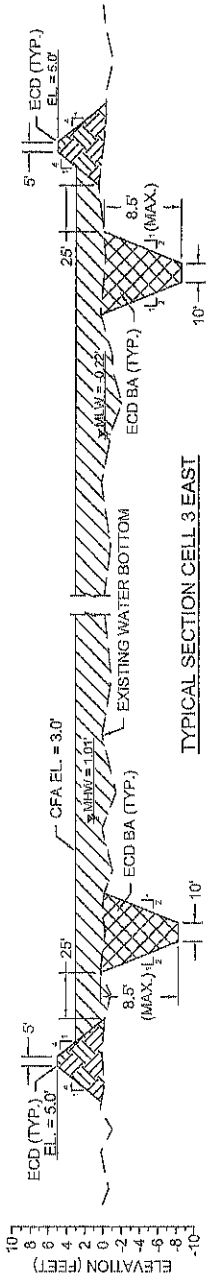
APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	 ROYAL ENGINEERS	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	RABBIT ISLAND RESTORATION	FILL AREA PLAN VIEW
DRAWN BY: REC	DESIGNED BY: LL	APPROVED BY: BT	STATE PROJECT NUMBER: CS-0080 FEDERAL PROJECT NUMBER: CS-0080	DATE: 08/14/2018 SHEET 2 OF 8



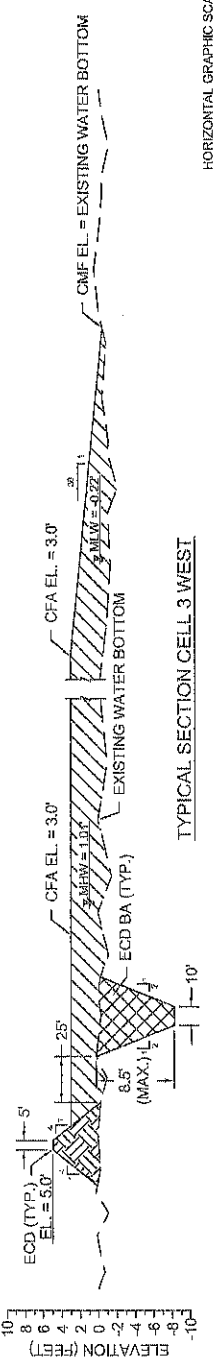
TYPICAL SECTION CELL 1



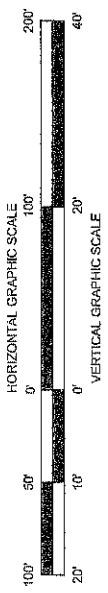
TYPICAL SECTION CELL 2




TYPICAL SECTION CELL 3 EAST



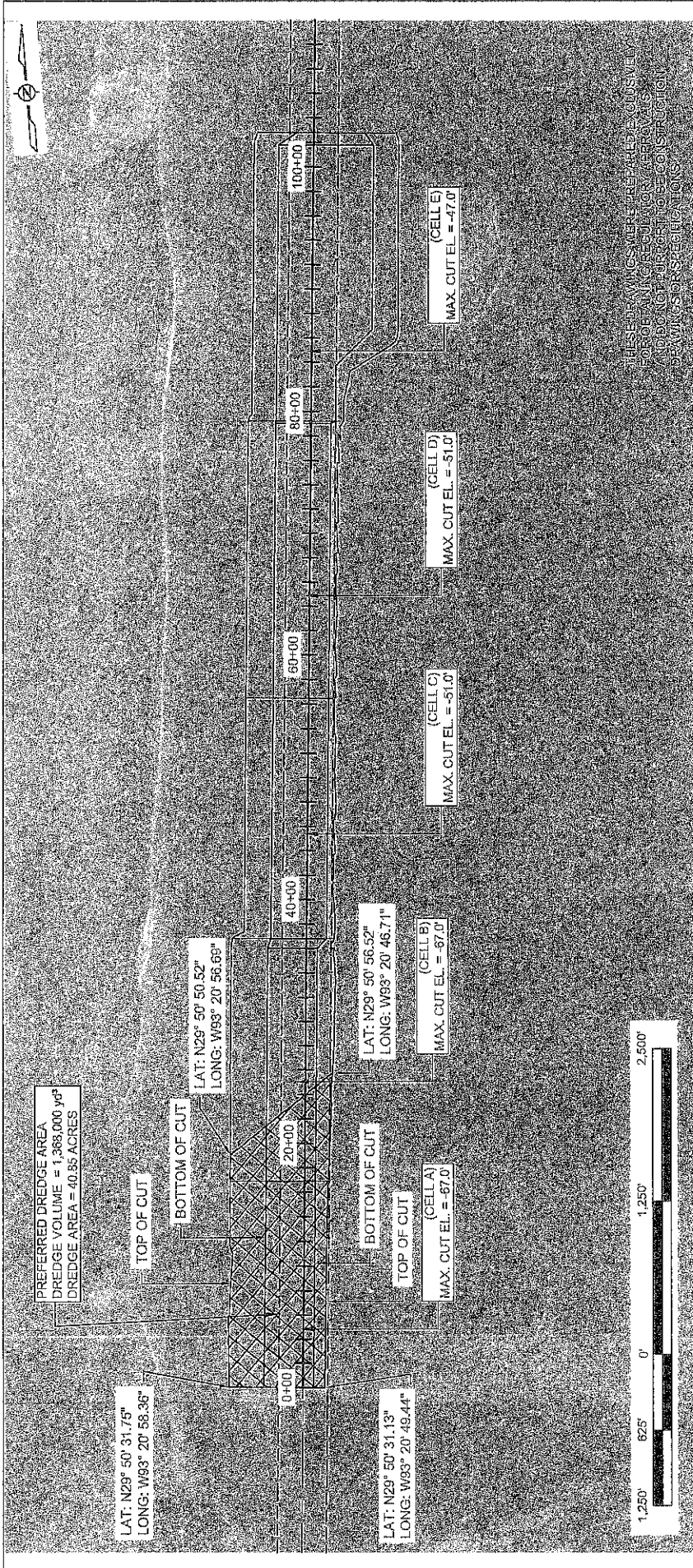
TYPICAL SECTION CELL 3 WEST



THESE DRAWINGS WERE PREPARED EXCLUSIVELY FOR OBTAINING REGULATORY APPROVALS AND DO NOT PURPORT TO BE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.

APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	 ROYAL ENGINEERS	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	RABBIT ISLAND RESTORATION TYPICAL SECTIONS
DRAWN BY: REC	DESIGNED BY: LL	APPROVED BY: BT	FEDERAL PROJECT NUMBER: CS-0080 STATE PROJECT NUMBER: CS-0080 DATE: 08/14/2018 SHEET 3 OF 8






**ESTIMATED BORROW AREA QUANTITIES**

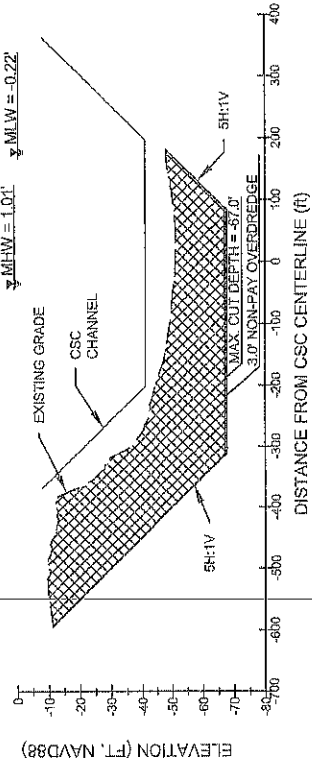
SITE	VOLUME (CY)	AREA (ACRES)
CELL A	1,022,636	30.59
CELL B	1,305,000	38.15
CELL C	1,464,000	33.16
CELL D	769,000	38.43
CELL E	1,334,000	59.35

**NOTES:**

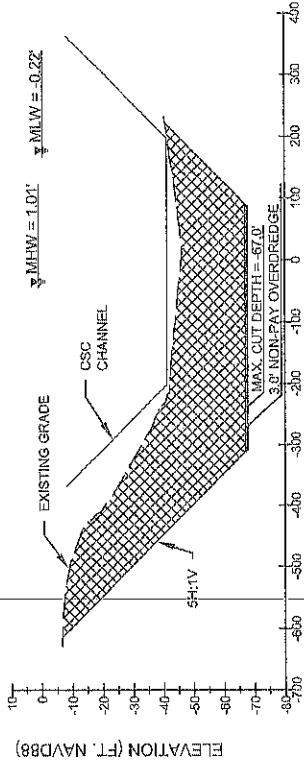
1. THESE DRAWINGS DEPICT MAXIMUM BORROW AREA ACREAGE AND VOLUMES.
2. BORROW CELLS A THROUGH E WERE DELINEATED USING GEOTECHNICAL INFORMATION. THE PREFERRED BORROW AREA HAS BEEN IDENTIFIED AS CONTAINING THE MORE SUITABLE MATERIAL, HOWEVER THE OTHER DELINEATED BORROW CELLS MAY BE CONSIDERED AS A BORROW SOURCE IF REQUIRED.

<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	 <p>ROYAL ENGINEERS</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>RABBIT ISLAND RESTORATION</p>	<p>BORROW AREA PLAN VIEW</p>
<p>DESIGNED BY: LL</p>	<p>APPROVED BY: BT</p>	<p>STATE PROJECT NUMBER: CS-0080</p>	<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>DATE: 08/14/2018</p>
<p>DRAWN BY:</p>	<p>DESIGNED BY: LL</p>	<p>APPROVED BY: BT</p>	<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>SHEET 4 OF 8</p>

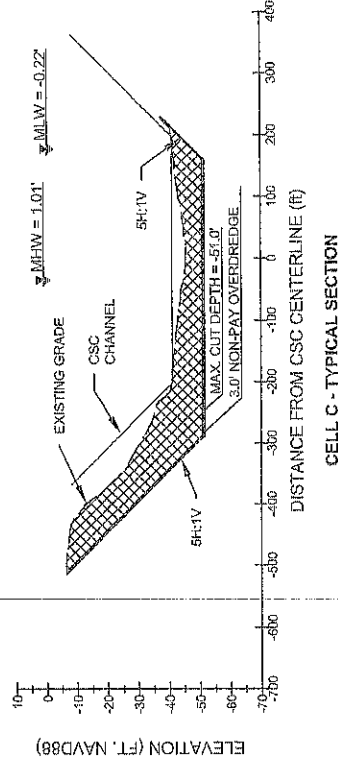
THESE DRAWINGS WERE PREPARED EXCLUSIVELY FOR OBTAINING REGULATORY APPROVALS AND DO NOT PURPORT TO BE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.



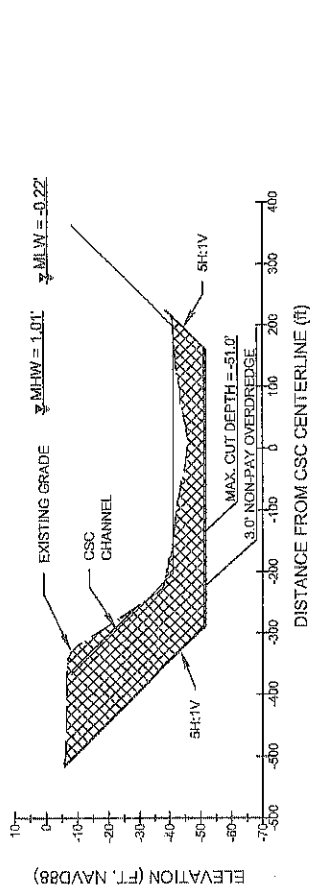
CELL A - TYPICAL SECTION



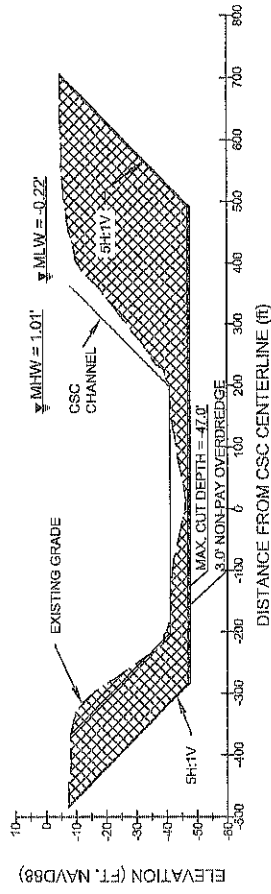
CELL B - TYPICAL SECTION



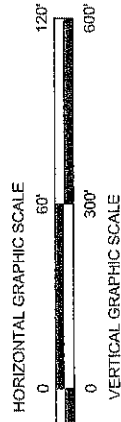
CELL C - TYPICAL SECTION



CELL D - TYPICAL SECTION



CELL E - TYPICAL SECTION



APPLICATION BY:  
COASTAL PROTECTION AND RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801



ROYAL ENGINEERS



COASTAL PROTECTION AND RESTORATION AUTHORITY  
450 LAUREL STREET  
BATON ROUGE, LOUISIANA 70801

RABBIT ISLAND RESTORATION

BORROW AREA TYPICAL SECTIONS

DATE: 08/14/2018

STATE PROJECT NUMBER: CS-0080

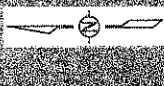
FEDERAL PROJECT NUMBER: CS-0080

DRAWN BY:

DESIGNED BY: LL

APPROVED BY: BT

SHEET 5 OF 8



**EQUIPMENT ACCESS CORRIDOR**

	NORTHING	EASTING	LATITUDE	LONGITUDE
1	495,536.6128	2,641,609.5115	N29° 50' 49.79"	W93° 20' 59.31"
2	496,193.7254	2,637,328.4145	N29° 50' 55.54"	W93° 21' 48.05"
3	496,274.0237	2,652,763.7020	N29° 50' 55.54"	W93° 22' 39.67"

**LEGEND**

FILL AREA

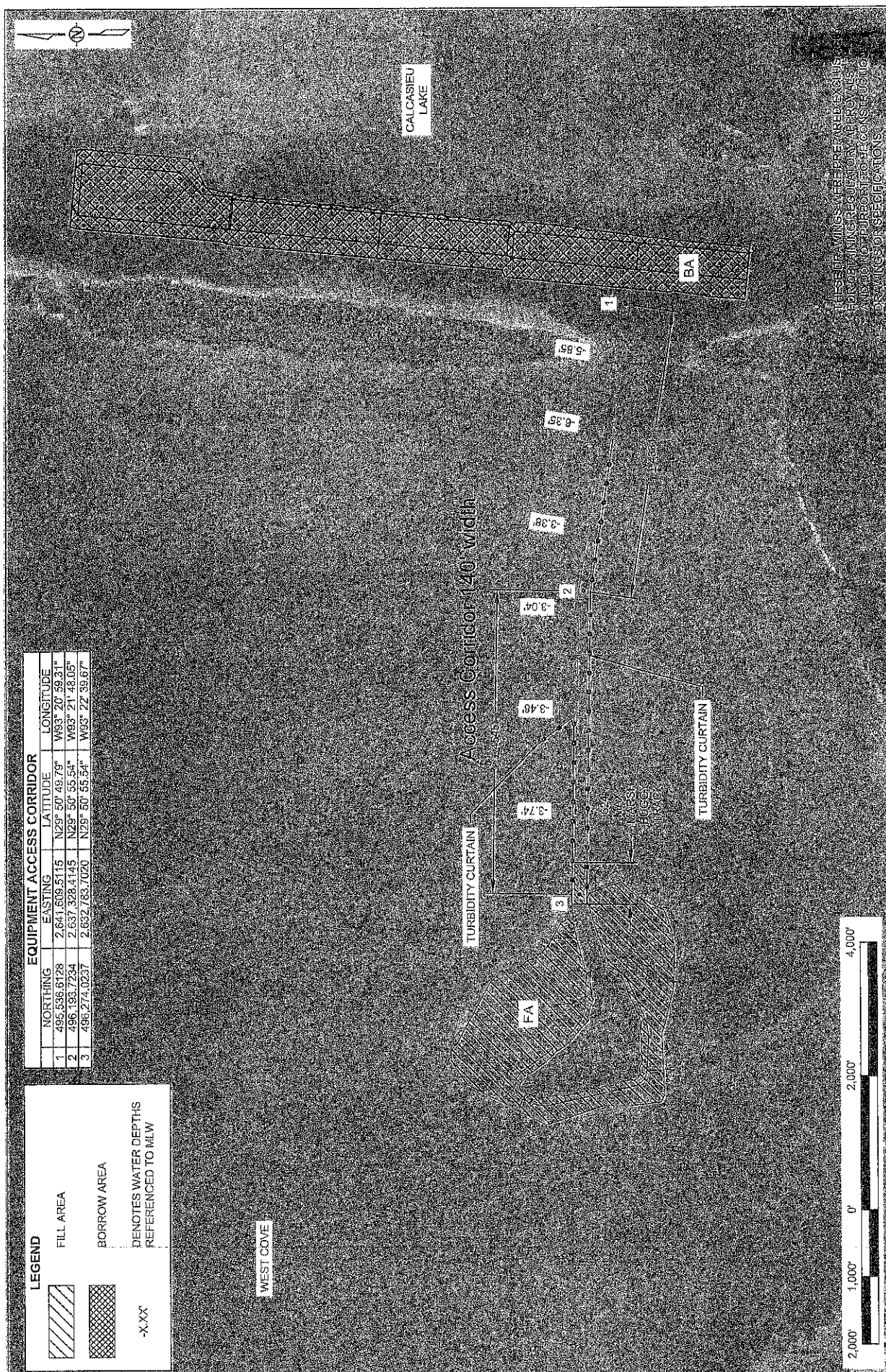
BORROW AREA

DENOTES WATER DEPTHS REFERENCED TO MLW

-X.XX'

WEST COVE

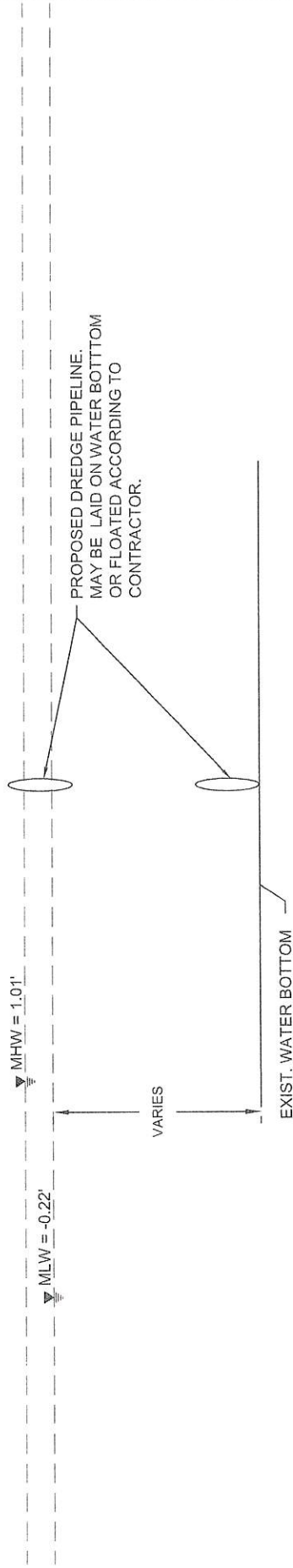
CALCASIEU LAKE



THESE DRAWINGS ARE PREPARED BY EXCLUSIVELY FOR THE PURPOSES OF THE PROJECT AND DO NOT REPRESENT THE CONSULTING ENGINEER'S SPECIFICATIONS.




<p>APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	  <p>ROYAL ENGINEERS</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>	<p>RABBIT ISLAND RESTORATION</p>	<p>ACCESS ROUTE PLAN VIEW</p>
<p>DRAWN BY: REC</p>	<p>DESIGNED BY: LL</p>	<p>APPROVED BY: BT</p>	<p>STATE PROJECT NUMBER: CS-0060</p>	<p>DATE: 08/14/2018</p>
<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>FEDERAL PROJECT NUMBER: CS-0080</p>	<p>SHEET 6 OF 8</p>



### DREDGE PIPELINE TYPICAL SECTION

NOTE: PIPELINE DIAMETER AND INSTALLATION VARIES ACCORDING TO CONTRACTOR.


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APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	 ROYAL ENGINEERS	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801  APPROVED BY: BT	RABBIT ISLAND RESTORATION	DREDGE PIPELINE TYPICAL SECTION  DATE: 08/14/2018 SHEET 7 OF 8
DRAWN BY: REC	DESIGNED BY: LL	FEDERAL PROJECT NUMBER: CS-0080	STATE PROJECT NUMBER: CS-0080	FEDERAL PROJECT NUMBER: CS-0080

GENERAL NOTES

1. THE PERMITTEE WILL COMPLY WITH ALL APPLICABLE LAWS REGARDING THE NEED TO CONTACT THE LOUISIANA ONE CALL SYSTEM (811) OR ONLINE AT [http://www.laconecall.com/how\\_to\\_use\\_us.htm](http://www.laconecall.com/how_to_use_us.htm) TO LOCATE ANY EXISTING UTILITIES.
2. EQUIPMENT TO BE USED: MARSH BUGGY EXCAVATOR, HYDRAULIC DREDGE, BARGE, AND WORK BOAT.
3. EQUIPMENT DRAFT:
  - MARSH BUGGY: 5.0'
  - DREDGE: 4.0'
  - BARGE: 3.0'
  - JOHN/WORK BOAT: 1.5'

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APPLICATION BY: COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	 ROYAL ENGINEERS	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	RABBIT ISLAND RESTORATION  STATE PROJECT NUMBER: CS-0080 FEDERAL PROJECT NUMBER: CS-0080	GENERAL NOTES  DATE: 08/14/2018
DRAWN BY: REC	DESIGNED BY: LL	APPROVED BY: BT	SHEET 8 OF 8	SHEET 8 OF 8