



Louisiana Department of Natural Resources
Office of Coastal Management
(OCM)

Joint Permit Application

For Work Within the Louisiana Coastal Zone



U.S. Army Corps Of Engineers
(COE)
New Orleans District

[Print Application](#)

Permit Number: P20131098

Date Received: 03/19/2018

Step 1 of 15 - Applicant Information

Applicant/Company Name: COASTAL PROTECTION & RESTORATION AUTHORITY OF LOUISIANA (CPRA) **Applicant Type:** GOVERNMENT AGENCY

Mailing Address: 150 Terrace Avenue
Baton Rouge, LA 70802

Contact Information: Megan Terrell

Daytime: 225 342 6952 **Fax:** **Contact Email:**

Step 2 of 15 - Agent Information

Company Name: Coastal Protection & Restoration Authority (CPRA)

Mailing Address: 150 Terrace Avenue
Baton Rouge, LA 70802

Contact Information: Elizabeth Davoli

Daytime: 225 342 4616 **Fax:** 225 342 4591 **Contact Email:** Elizabeth.Davoli@la.gov

Step 3 of 15 - Permit Type

- Coastal Use Permit (CUP) Solicitation of Views (SOV) Request for Determination (RFD)

Step 4 of 15 - Pre-Application Activity

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

No

Yes

Date meeting was held: 05/19/2016

Elizabeth Davoli (CPRA)

Stephanie Zumo

Brad LaBorde

Attendees:

(Individual or Company Rep)

(OCM Representative)

(COE Representative)

b. Have you obtained an official wetland determination from the COE for the project site?

No

Yes

JD Number:

MVN-2012-02806-SY

c. Is this application a mitigation plan for another CUP?

No

Yes

OCM Permit Number:

Step 5 of 15 - Project Information

a. Describe the project:

The Mid-Barataria Sediment Diversion is a large-scale, complex civil works and ecosystem restoration project. When operated, up to 75,000 cubic feet per second (cfs) of sediment-laden water would be diverted from the Mississippi River to the mid-Barataria Basin to reconnect and re-establish the natural or deltaic sediment deposition process between the the Mississippi River and the Barataria Basin to deliver sediment, freshwater, and nutrients to reduce land loss and sustain wetlands.

b. Is this application a change to an existing permit?

No

Yes

OCM Permit Number:

c. Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?

No

Yes

	<u>Agency Name</u>	<u>Permit Number</u>	<u>Decision Status</u>	<u>Decision Date</u>
OCM	Stephanie Zumo	P20131098	Pending	
COE	Brad LaBorde	MVN-2012-02806-EOO	Pending	

Other

Step 6 of 15 - Project Location

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] :

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] :

[REDACTED]

Step 8 of 15 - Project Specifics

a. **Project Name and/or Title:** Mid-Barataria Sediment Diversion (BA-153)

b. **Project Type:** Non-Residential

c. **Source of Funding:** Federal

d. **What will be done for the proposed project?**

- | | | | |
|---|--|--|---|
| <input checked="" type="checkbox"/> Bridge/Road | <input type="checkbox"/> Home Site/Driveway | <input checked="" type="checkbox"/> Pipeline/Flow Line | <input checked="" type="checkbox"/> Rip Rap/Erosion Control |
| <input checked="" type="checkbox"/> Bulkhead/Backfill | <input checked="" type="checkbox"/> Levee Construction | <input type="checkbox"/> Plug/Abandon | <input checked="" type="checkbox"/> Site Clearance |
| <input checked="" type="checkbox"/> Drainage Improvements | <input checked="" type="checkbox"/> Dredging | <input type="checkbox"/> Production Barge/Structure | <input type="checkbox"/> Subdivision |
| <input checked="" type="checkbox"/> Drill Barge/Structure | <input type="checkbox"/> Prop Washing | <input type="checkbox"/> Vegetative Plantings | <input type="checkbox"/> Wharf/Pier/Boathouse |
| <input type="checkbox"/> Drill Site | <input checked="" type="checkbox"/> Pilings | <input checked="" type="checkbox"/> Remove Structures | |
| <input checked="" type="checkbox"/> Fill | <input type="checkbox"/> Marina | <input type="checkbox"/> Major Industrial/Commercial | |
- Other: excavation for conveyance channel / levee tie-ins

e. **Why is the proposed project needed?**

Consistent with the Louisiana Trustee Implementation Group's Strategic Restoration Plan (SRP) and Environmental Assessment #3 and the Louisiana Coastal Master Plan (CMP), the purpose is to restore for injuries caused by the Deepwater Horizon oil spill by implementing a large-scale sediment diversion in the Barataria Basin that will reconnect and re-establish sustainable deltaic processes between the Mississippi River and the Barataria Basin through the delivery of sediment, freshwater, and nutrients to support the long-term viability of existing and planned coastal restoration efforts. The proposed project is needed to help restore habitat and ecosystem services injured in the northern Gulf of Mexico as a result of the DWH oil spill.

Step 9 of 15 - Project Status

a. **Proposed project start date:** 01/01/2020 **Proposed project completion date:** 01/01/2025

b. **Is any of the project work in progress?**

- No Yes

c. *Is any of the project work complete?*

No Yes

Step 10 of 15 - Structures, Materials, and Methods for the Proposed Project

a. *Excavations*

3,850,000 yd³ 288 Acres

b. *Fill Areas*

4,152,001.00 yd³ 554.30 Acres

c. *Fill Materials*

<input checked="" type="checkbox"/> Concrete:	371,293 yd ³	<input checked="" type="checkbox"/> Rock:	65,676 yd ³
<input checked="" type="checkbox"/> Crushed Stone or Gravel:	102,290 yd ³	<input type="checkbox"/> Sand:	yd ³
<input checked="" type="checkbox"/> Excavated and placed onsite:	1,100,000 yd ³	<input checked="" type="checkbox"/> Hauled in topsoil/Dirt:	584,035 yd ³
<input checked="" type="checkbox"/> Excavated and hauled offsite:	2,300,000 yd ³		
<input checked="" type="checkbox"/> Other: Nourishment Disposal Area	2,300,000.00 yd ³		

d. *What equipment will be used for the proposed project?*

<input checked="" type="checkbox"/> Airboat	<input checked="" type="checkbox"/> Bulldozer/Grader	<input checked="" type="checkbox"/> Marsh Buggy
<input checked="" type="checkbox"/> Backhoe	<input checked="" type="checkbox"/> Dragline/Excavator	<input checked="" type="checkbox"/> Other Tracked or Wheeled Vehicles
<input checked="" type="checkbox"/> Barge Mounted Bucket Dredge	<input type="checkbox"/> Handjet	<input type="checkbox"/> Self Propelled Pipe Laying Barge
<input type="checkbox"/> Barge Mounted Drilling Rig	<input type="checkbox"/> Land Based Drilling Rig	<input checked="" type="checkbox"/> Tugboat
<input type="checkbox"/> Other:		

Step 11 of 15 - Project Alternatives

a. *Total acres of wetlands and/or waterbottoms filled and/or excavated.*

484.6 acres

b. What alternative locations, methods, and access routes were considered to avoid impact to wetlands and/or waterbottoms?

As part of the engineering and design phase, construction and staging areas would consider the use of existing access roads and drives to minimize impacts to wetlands. See pp. 16-19 for additional information on alternatives (location, capacity, and structure type) analysis conducted since 1996 that resulted in the location of the Mid-Barataria Sediment Diversion at River Mile 60.7 with a capacity of 75,000 cfs.

c. What efforts were made to minimize impact to wetlands and/or waterbottoms?

The analysis of the Mid-Barataria Sediment Diversion was developed using the minimum construction footprint to maximize the conveyance of sediment-laden water from the Mississippi River to the mid-Barataria Basin. The gravity conveyance alignment was developed for efficient sediment conveyance between the river and the basin. Best Management Practices (BMPs) are being developed for access routes to minimize disturbance to wetlands between the MR&T and NOV levees.

d. How are unavoidable impacts to vegetated wetlands to be mitigated?

The project is self-mitigating. The purpose of the Project is to reconnect and re-establish the natural or deltaic sediment deposition process between the Mississippi River and the Barataria Basin as a long-term resilient, sustainable strategy to reduce land loss rates and sustain DWH injured wetlands through the delivery of sediment, freshwater, and nutrients.

Step 12 of 15 - Permit Type and Owners

a. Are you applying for a Coastal Use Permit?

No Yes

b. Are you the sole landowner/oyster lease holder?

No Yes

The applicant is an owner of the property on which the proposed described activity is to occur.

The applicant has made reasonable effort to determine the identity and current address of the owner(s) of the land on which the proposed described activity is to occur, which included, a search of the public records of the parish in which the proposed activity is to occur.

The applicant hereby attests that a copy of the application has been distributed to the following landowners/oyster lease holders.

Landowner/Oyster Lease [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]

c. Does the project involve drilling, production, and/or storage of oil and gas?

No

Yes

Step 13 of 15 - Maps and Drawing Instructions

USACE Figure Jurisdictional Wetlands and WOTUS.pdf	03/19/2018 08:20:03 AM
Pages from JD final 2012 02806 1 SY Davoli.pdf	03/19/2018 08:20:59 AM
MBSDBA-153PermitSet.pdf	06/22/2016 03:29:40 PM
P20131098NeedsandAlternativesJustification.pdf	06/22/2016 03:29:40 PM
RevisedP20131098 MVN-2012-02806-ETTSupplementInfo.pdf	06/22/2016 03:29:41 PM
Supplementalfigures2.pdf	06/22/2016 03:29:41 PM
FEE WAIVER REQUEST LETTER 07-24-13.pdf	07/24/2013 01:31:40 PM

Step 14 of 15 - Payment

The fee for this permit is: \$100.00

Step 15 of 15 - Payment Processed

Applicant Information

Applicant Name: COASTAL PROTECTION & RESTORATION AUTHORITY OF LOUISIANA (CPRA)
Address: 150 Terrace Avenue
City/State/Zip: Baton Rouge, LA 70802

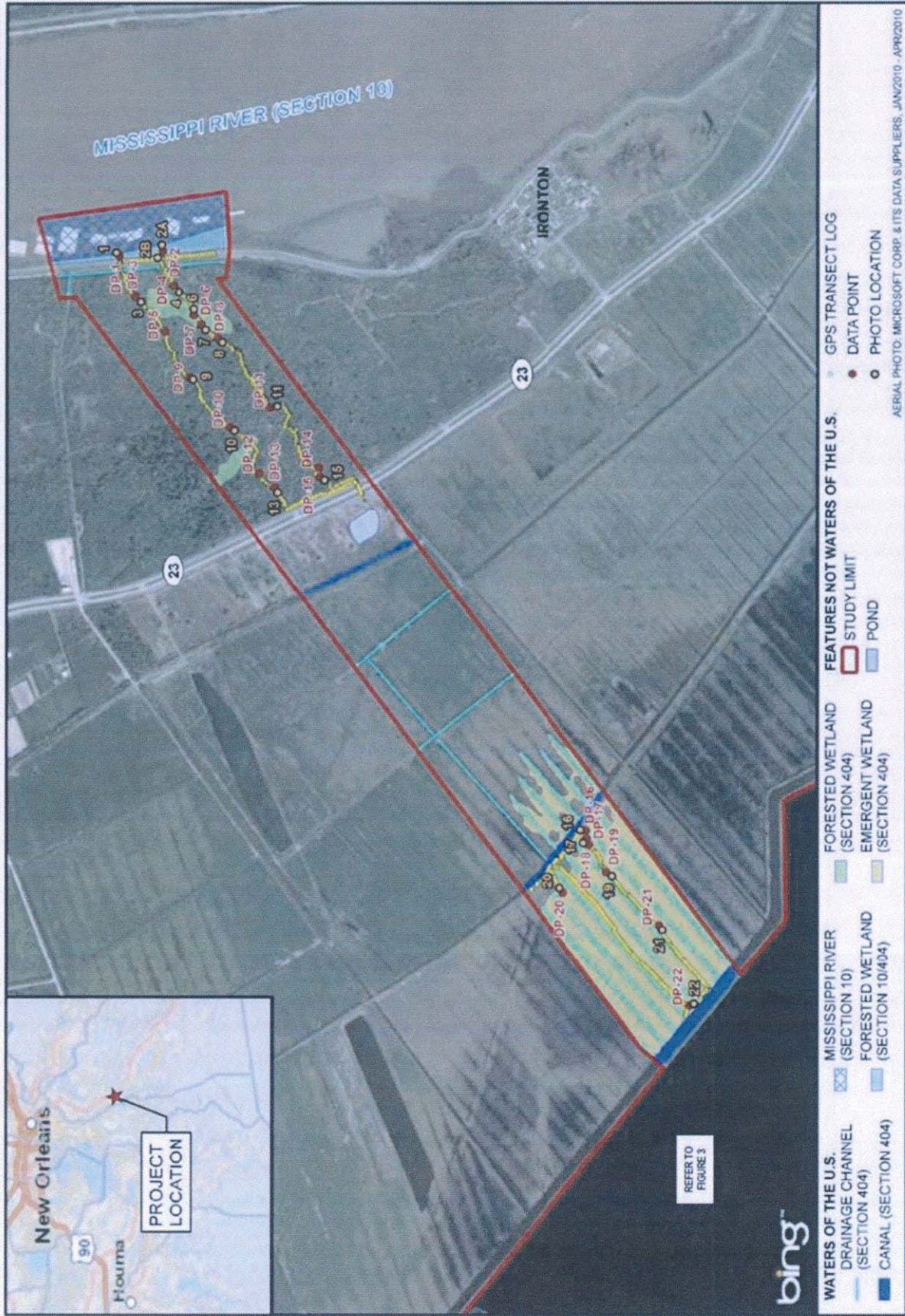
Application Information

Permit Type: CUP

To the best of my knowledge the proposed activity described in this permit application complies with, and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.

[View Comments related to this project](#)

Project Location



- WATERS OF THE U.S.
 - DRAINAGE CHANNEL (SECTION 404)
 - CANAL (SECTION 404)
- MISSISSIPPI RIVER (SECTION 10)
- FORESTED WETLAND (SECTION 10/404)
- FORESTED WETLAND (SECTION 404)
- EMERGENT WETLAND (SECTION 404)
- STUDY LIMIT
- POND
- GPS TRANSECT LOG
- DATA POINT
- PHOTO LOCATION

AERIAL PHOTO: MICROSOFT CORP. & ITS DATA SUPPLIERS, JAN2010 - APR2010



REFER TO FIGURE 3

APPROVED
 JURISDICTIONAL DETERMINATION

USACE FSV / (H) Date: 14 OCT 2016
 Botanist: B. Oberlies
 Requestor: Davoli
 # MVN-2012-02806-SY
 - NON-WETLAND
 - WETLAND - 404 and 10/404
 - WATERS OF THE US - 404 & 10

**Mid-Barataria Sediment Diversion
 Site Map - Wetlands
 Permitting
 October 2016**

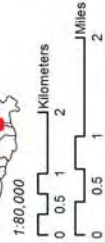
Jefferson and Plaquemines
 Parishes, La

Project Features
 ■ MBSD Pump Station

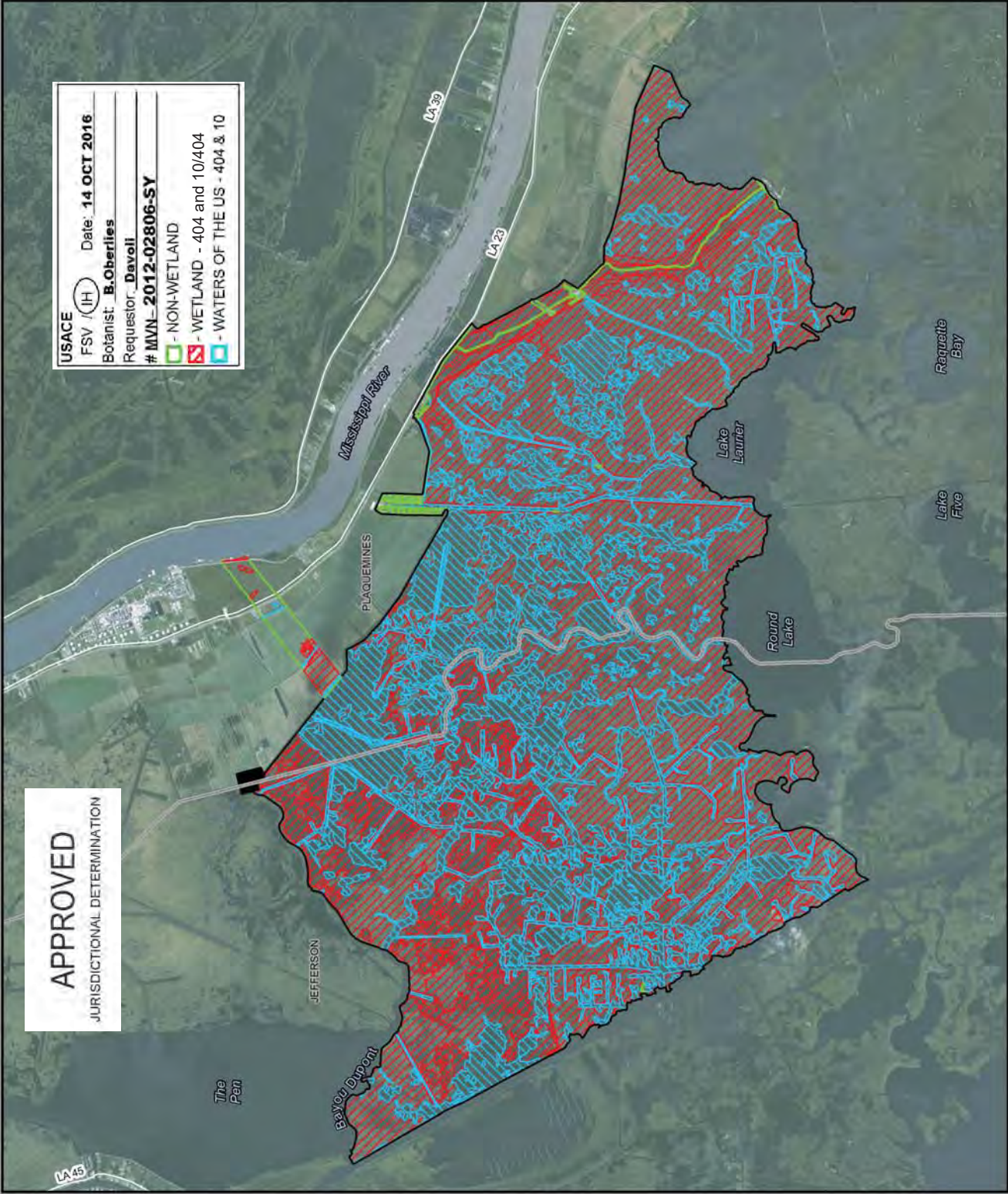
Habitat Types
 ■ Open Water
 ■ Uplands
 ■ Wetlands

Reference Features
 ■ Parish Boundary
 ■ Road

All project features are graphical representations only
 are subject to change, and may not reflect true location or dimension



Source: Coastal Protection and Restoration Authority of Louisiana
 Imagery: ESRI World Imagery
 Map Date: October 13, 2016
 /2016040375



PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: New Orleans District File/ORM #: MVN-2012-02086-1-SY PJD Date: Aug 11, 2016

State: <u>LA</u>	City/County: <u>Plaquemines Parish</u>	Name/ Address of Person Requesting PJD	Ms. Elizabeth Davoli Coastal Protection & Restoration Authority of LA P. O. Box 44027 Capitol Station Baton Rouge, LA 70804
Nearest Waterbody: <u>Mississippi River</u>			
Location: TRS, Lat/Long or UTM: <u>Sec. 5,16,47,48,49, T16S, R25E 29.661806 N -89.9635 W</u>			

Identify (Estimate) Amount of Waters in the Review Area:	Name of Any Water Bodies on the Site Identified as
Non-Wetland Waters:	Tidal: <u>Mississippi River</u>
<input type="checkbox"/> linear ft <input type="checkbox"/> width <input type="checkbox"/> acres <input type="checkbox"/> Stream Flow: <input type="checkbox"/> Perennial	Section 10 Waters: Non-Tidal: <input type="checkbox"/>
Wetlands: <u>~38</u> acre(s) Cowardin Class: <u>Estuarine</u>	<input checked="" type="checkbox"/> Office (Desk) Determination <input type="checkbox"/> Field Determination: Date of Field Trip: <input type="text"/>

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite quad name: 1:24k Phoenix
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS web soil survey
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is:
- Photographs: Aerial (Name & Date): 98, 04, 05,06, 08, 10,13
 - Other (Name & Date):
- Previous determination(s). File no. and date of response letter: 2009-00898-SY, 5/5/09;
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

OBERLIES BRIAN M
C INNIS.1230779739
Digitally signed by OBERLIES BRIAN M
INNIS.1230779739
DN: cn=US, o=U.S. Government, ou=DoD,
c=US, ou=USA, email=OBERLIES.BRIAN.M@
INNIS.1230779739
Date: 2016.08.11 11:25:33 -0500

Signature and Date of Regulatory Project Manager
(REQUIRED)

Requested by applicant 6/30/16

Signature and Date of Person Requesting Preliminary JD
(REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

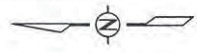
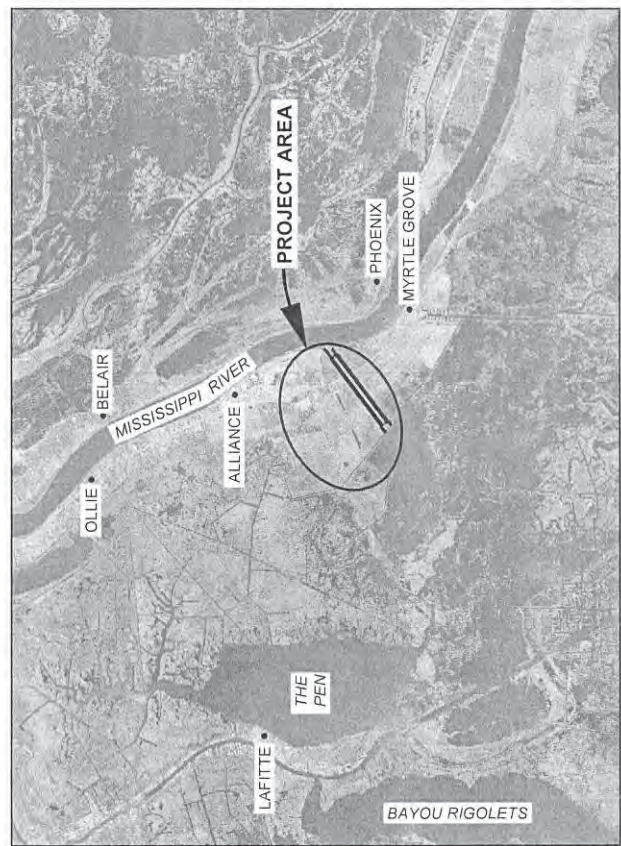
1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY
MID-BARATARIA
SEDIMENT DIVERSION PROJECT
BA-153
PLAQUEMINES PARISH, LOUISIANA

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS
3	PROJECT LAYOUT
4	CONVEYANCE CHANNEL LAYOUT
5	OVERALL ROADWAY AND RAIL PLAN
6	CHENIER TRAVERSE BAYOU PUMP STATION SITE
7	TYPICAL CONVEYANCE CHANNEL SECTION (1 OF 2)
8	TYPICAL CONVEYANCE CHANNEL SECTION (2 OF 2)
9	TYPICAL ROADWAY SECTION (1 OF 2)
10	TYPICAL ROADWAY SECTIONS (2 OF 2)
11	DISPOSAL AREA
12	POTENTIAL SEDIMENT DEPOSITION/LAND BUILDING AREA



APPLICATION BY:
 CPRA
 P.O. BOX 44027
 BATON ROUGE, LA 70804

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

MID-BARATARIA SEDIMENT
 DIVERSION PROJECT

TITLE SHEET

DRAWN BY: K. CANTU

DESIGNED BY: K. GUILLORY, P.E.

APPROVED BY: R. SIMONEAUX, P.E.

STATE PROJECT NUMBER: BA-153

FEDERAL PROJECT NUMBER:

DATE: JUNE 2016

SHEET 1 OF 12

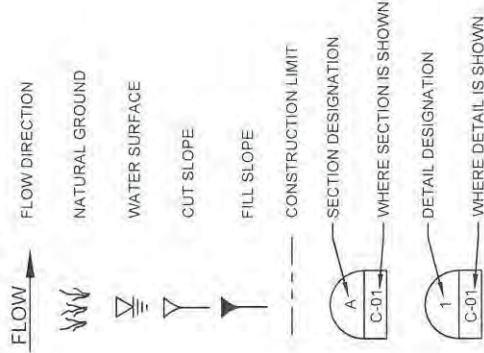
GENERAL NOTES

1. THESE PLANS WERE DEVELOPED USING 2010 AERIAL PHOTOGRAPHY, NAD83, LOUISIANA STATE COORDINATE SYSTEM, SOUTH ZONE.
2. ALL ELEVATIONS SHOWN ARE IN NAVD 88
3. AS-BUILT DRAWINGS WILL BE SUBMITTED WITHIN 30 DAYS OF COMPLETION OF THIS PROJECT TO THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL MANAGEMENT DIVISION, P.O. BOX 44487, BATON ROUGE, LA 70804-4487.
4. THE PERMIT APPLICANT SHALL CONTACT THE LOUISIANA ONE CALL SYSTEM (1-800-272-3020) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION (DIGGING, DREDGING, JETTING, ETC.) OR DEMOLITION ACTIVITY.
5. ALL NORTHING / EASTING AND LATITUDE / LONGITUDE VALUES ARE BASED ON PRELIMINARY DESIGN DATA AND ARE SUBJECT TO CHANGE.
6. ALL ELEVATIONS ARE BASED ON PRELIMINARY DESIGN DATA AND ARE SUBJECT TO CHANGE.

ABBREVIATIONS

APPROX	APPROXIMATE
B/L	BASELINE
CFS	CUBIC FEET PER SECOND
CL	CENTERLINE
DWG	DRAWING
E	EASTING
EL, ELEV	ELEVATION
HORIZ	HORIZONTAL
HWY	HIGHWAY
LA	LOUISIANA
MHW	MEAN HIGH WATER
MLW	MEAN LOW WATER
MR & T	MISSISSIPPI RIVER & TRIBUTARIES LEVEE
N	NORTHING
NO	NUMBER
NOV	NEW ORLEANS TO VENICE LEVEE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
RD	ROAD
ROW	RIGHT OF WAY
STA	STATION
TBD	TO BE DETERMINED
TYP	TYPICAL
VC	VERTICAL CURVE
VERT	VERTICAL
W	WESTING
YR	YEAR

SYMBOLS



FEATURE LOCATION TABLE

DESCRIPTION	NORTHING / LATITUDE	EASTING / LONGITUDE
POB CHANNEL BASELINE	426308.37 / 29° 39' 54.20" N	3717488.25 / 89° 57' 30.31" W
POE CHANNEL BASELINE	417902.28 / 29° 38' 32.30" N	3706292.82 / 89° 59' 38.32" W
DIVERSION GATE STRUCTURE	424567.11 / 29° 39' 37.24" N	3715169.19 / 89° 57' 56.83" W
BACK STRUCTURE	418993.06 / 29° 38' 42.84" N	3707732.23 / 89° 59' 21.86" W
POB PUMP STATION BASELINE	424556.45 / 29° 39' 38.77" N	3701081.76 / 90° 00' 36.50" W
POE PUMP STATION BASELINE	424331.16 / 29° 39' 36.65" N	3700158.86 / 90° 00' 46.99" W

APPLICATION BY:
 CRPA
 P.O. BOX #4027
 BATON ROUGE, LA 70804

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

DRAWN BY: CANTU

DESIGNED BY: K. GULLORY, P.E.

APPROVED BY: R. SIMONEAUX, P.E.

MID-BARATARIA SEDIMENT DIVERSION PROJECT

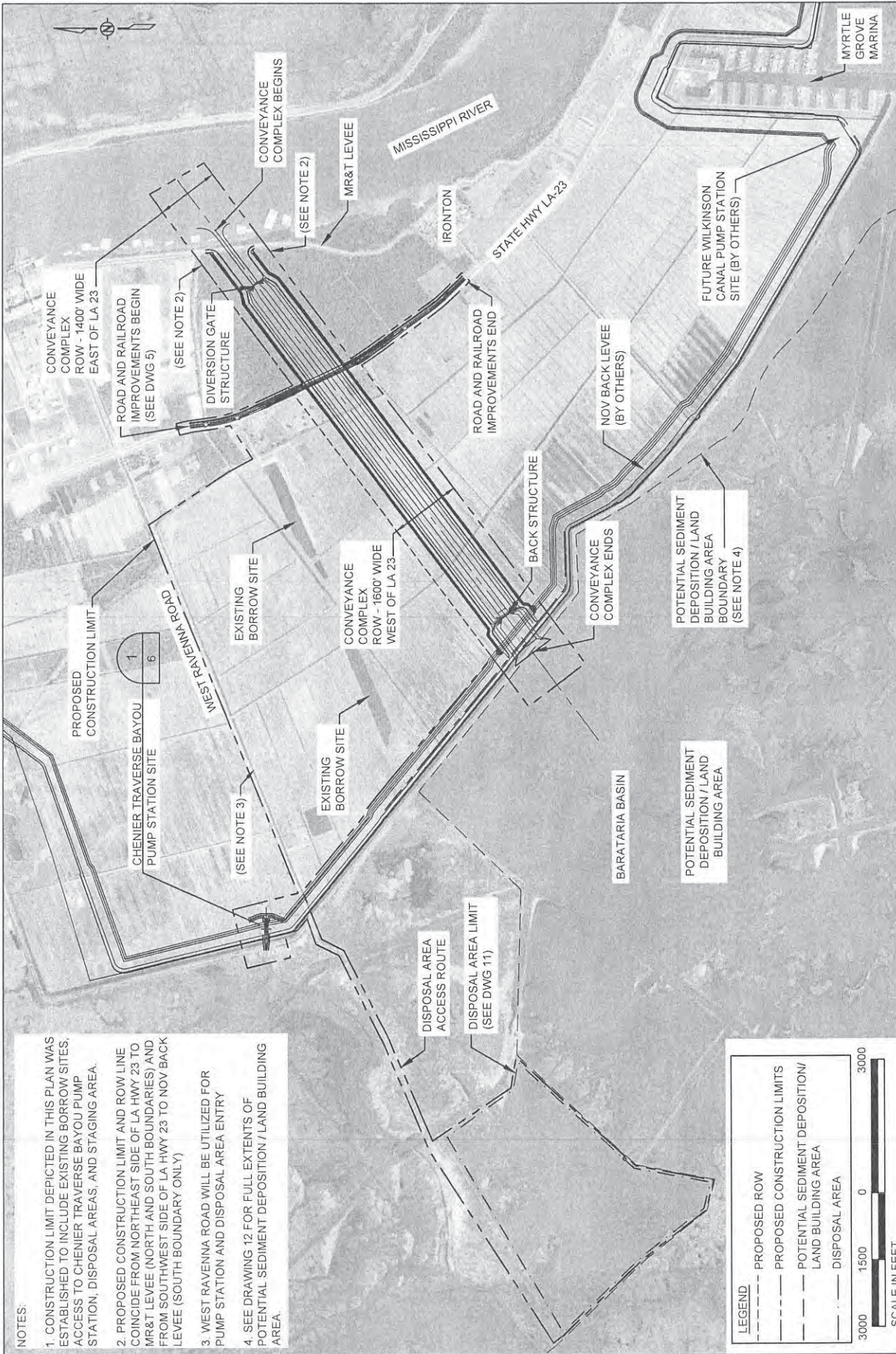
GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

STATE PROJECT NUMBER: BA-153

DATE: JUNE 2016

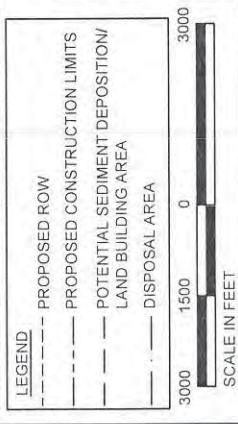
FEDERAL PROJECT NUMBER:

SHEET 2 OF 12

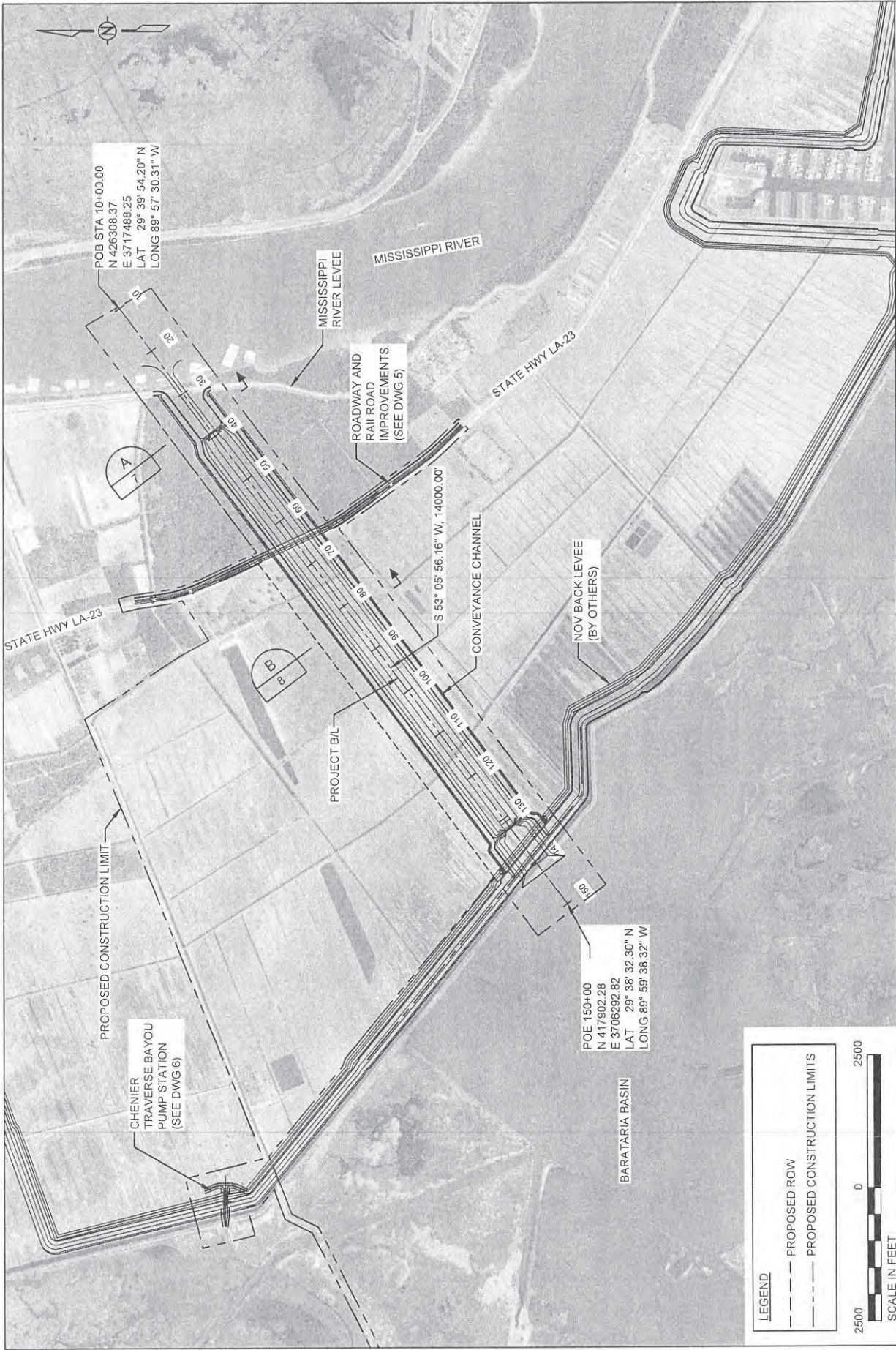


NOTES:

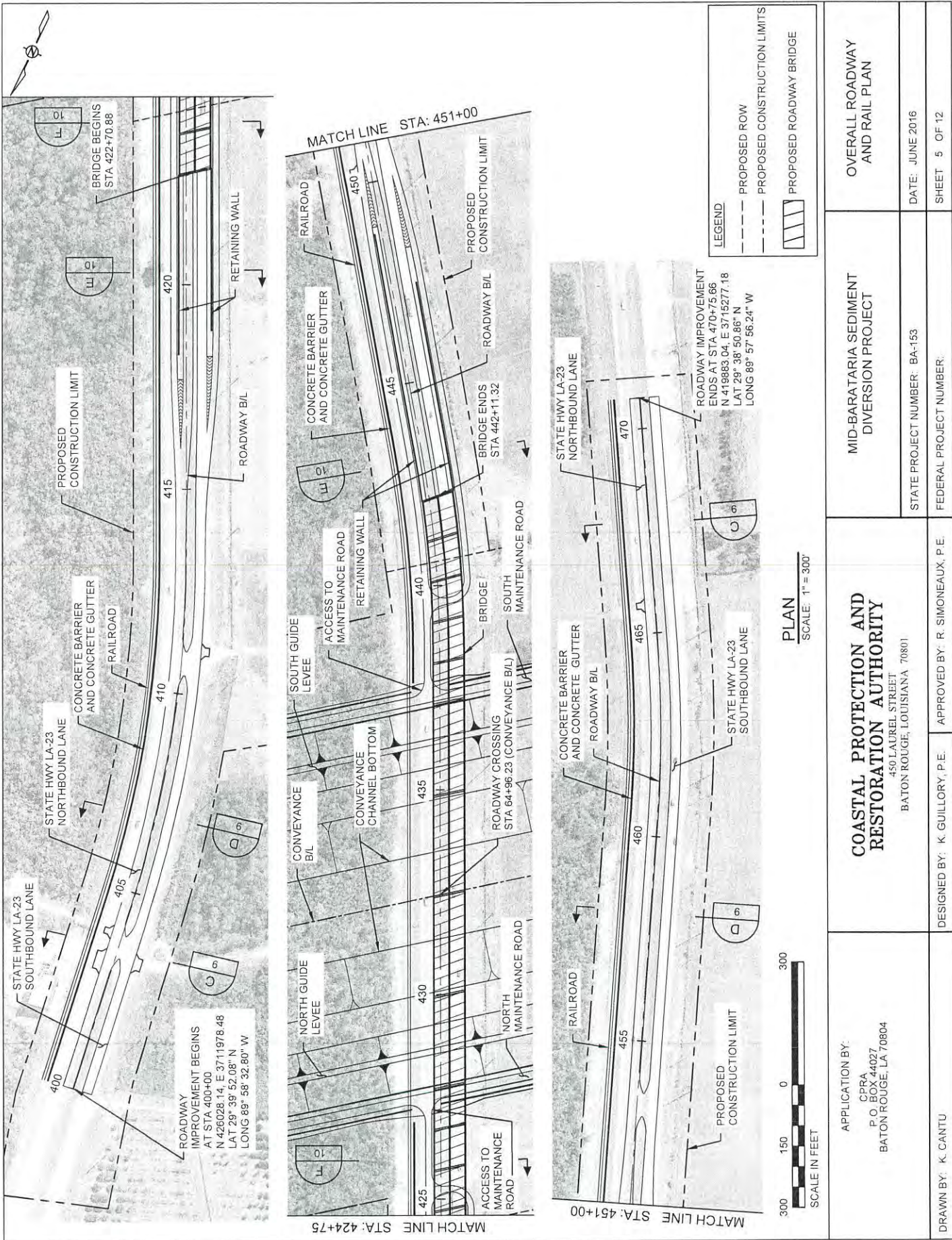
1. CONSTRUCTION LIMIT DEPICTED IN THIS PLAN WAS ESTABLISHED TO INCLUDE EXISTING BORROW SITES, ACCESS TO CHENIER TRAVERSE BAYOU PUMP STATION, DISPOSAL AREAS, AND STAGING AREA.
2. PROPOSED CONSTRUCTION LIMIT AND ROW LINE COINCIDE FROM NORTHEAST SIDE OF LA HWY 23 TO MR&T LEVEE (NORTH AND SOUTH BOUNDARIES) AND FROM SOUTHWEST SIDE OF LA HWY 23 TO NOV BACK LEVEE (SOUTH BOUNDARY ONLY).
3. WEST RAVENNA ROAD WILL BE UTILIZED FOR PUMP STATION AND DISPOSAL AREA ENTRY.
4. SEE DRAWING 12 FOR FULL EXTENTS OF POTENTIAL SEDIMENT DEPOSITION / LAND BUILDING AREA.



<p>APPLICATION BY: CPRA P.O. BOX 4027 BATON ROUGE, LA 70804</p>		<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>		<p>MID-BARATARIA SEDIMENT DIVERSION PROJECT</p>		<p>PROJECT LAYOUT</p>	
<p>DRAWN BY: K. CANTU</p>		<p>DESIGNED BY: K. GUILLORY, P.E.</p>		<p>APPROVED BY: R. SIMONEAUX, P.E.</p>		<p>DATE: JUNE 2016</p>	
<p>FEDERAL PROJECT NUMBER:</p>		<p>STATE PROJECT NUMBER: BA-153</p>		<p>FEDERAL PROJECT NUMBER:</p>		<p>SHEET 3 OF 12</p>	



CONVEYANCE CHANNEL LAYOUT	MID-BARATARIA SEDIMENT DIVERSION PROJECT	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	APPLICATION BY: CPRA P.O. BOX 44027 BATON ROUGE, LA 70804
DATE: JUNE 2016	STATE PROJECT NUMBER: BA-153	DESIGNED BY: K. GUILLORY, P.E.	DRAWN BY: K. CANTU
SHEET 4 OF 12	FEDERAL PROJECT NUMBER:	APPROVED BY: R. SIMONEAUX, P.E.	



APPLICATION BY:
CPRA
P.O. BOX 4027
BATON ROUGE, LA 70804

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

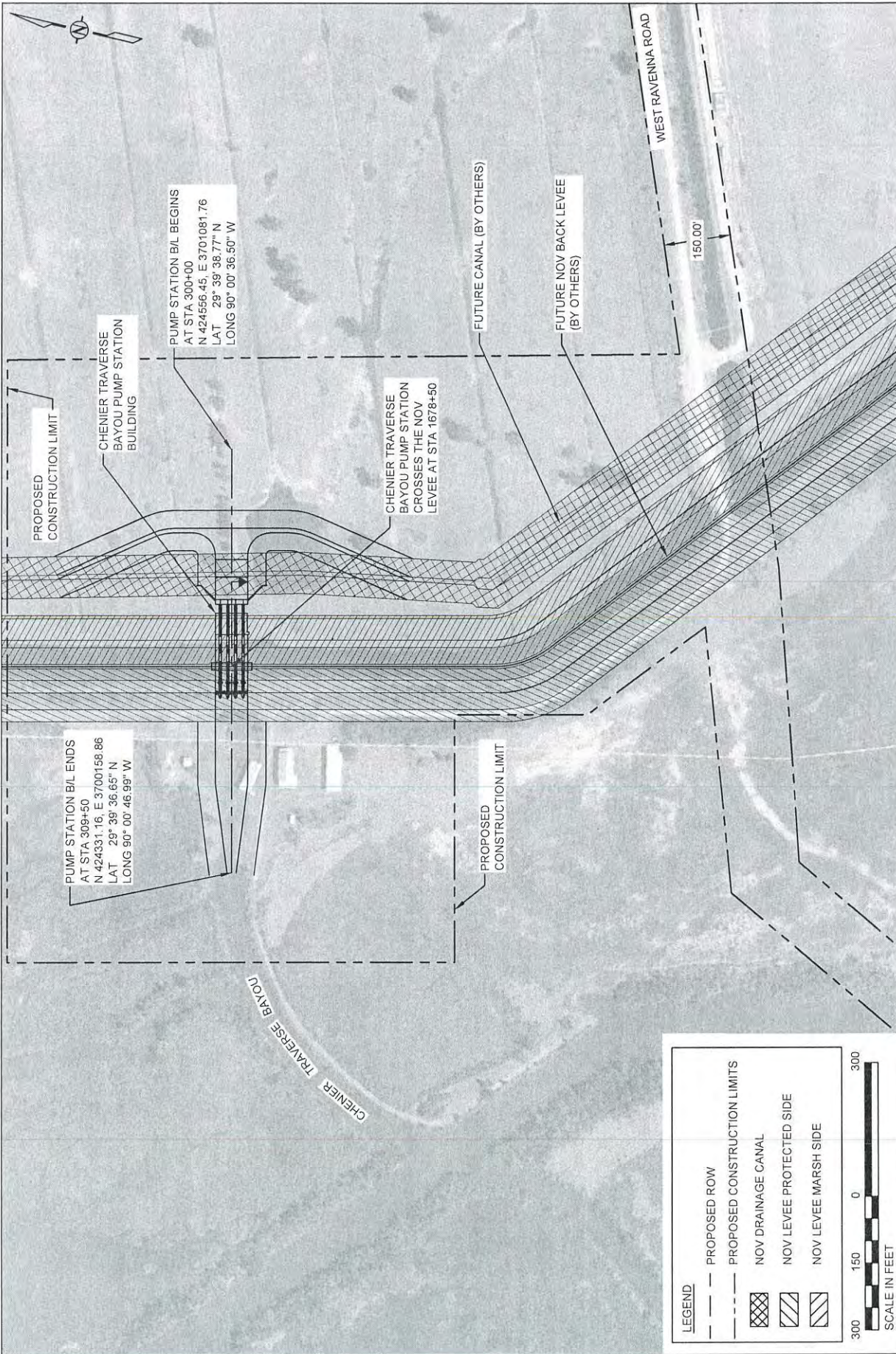
MID-BARATARIA SEDIMENT DIVERSION PROJECT

STATE PROJECT NUMBER: BA-153
FEDERAL PROJECT NUMBER:

OVERALL ROADWAY AND RAIL PLAN

DESIGNED BY: K. GUILLORY, P.E.
APPROVED BY: R. SIMONEAUX, P.E.

DATE: JUNE 2016
SHEET 5 OF 12

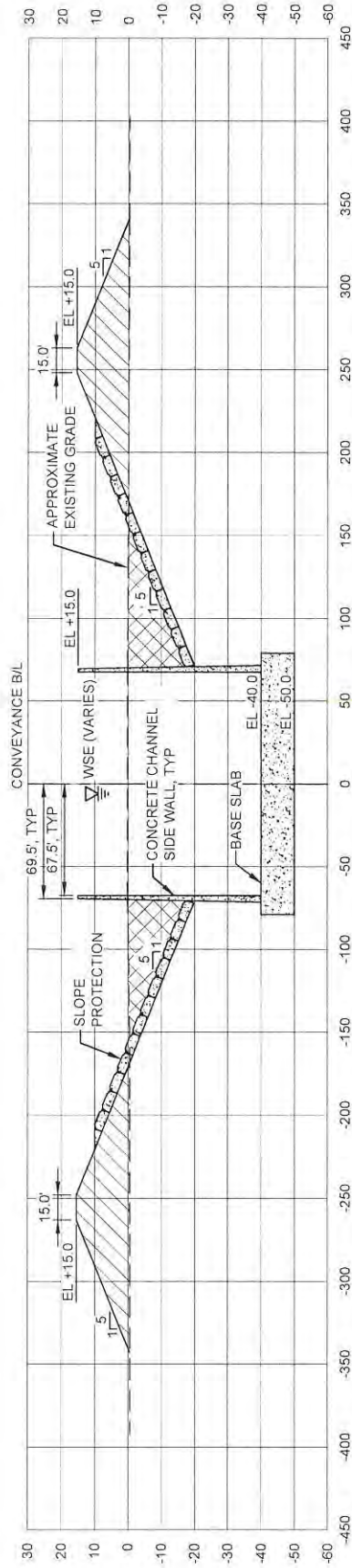


LEGEND

- PROPOSED ROW
- PROPOSED CONSTRUCTION LIMITS
- NOV DRAINAGE CANAL
- ▨ NOV LEVEE PROTECTED SIDE
- ▨ NOV LEVEE MARSH SIDE

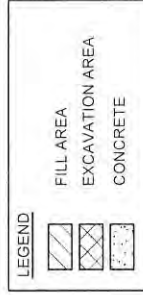
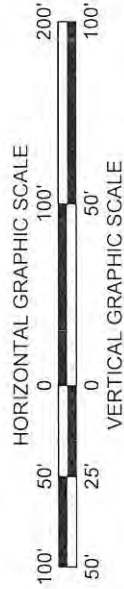
300 150 0 300
SCALE IN FEET

APPLICATION BY: CPRA P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	MID-BARATARIA SEDIMENT DIVERSION PROJECT	CHENIER TRAVERSE BAYOU PUMP STATION SITE
DRAWN BY: K. CANTU	DESIGNED BY: K. GUILLORY, P.E.	APPROVED BY: R. SIMONEAUX, P.E.	DATE: JUNE 2016 SHEET 6 OF 12
STATE PROJECT NUMBER: BA-153		FEDERAL PROJECT NUMBER:	



TYPICAL SECTION (LOOKING UPSTREAM)
FROM STA 30+00 TO STA 39+00

HORIZ SCALE: 1" = 100'
VERT SCALE: 1" = 50'



NOTES:
1. EXCAVATION AREA PATTERN NOT SHOWN WITHIN CONCRETE CHANNEL FOR CLARITY PURPOSES.

APPLICATION BY:
CPRA
P.O. BOX 44027
BATON ROUGE, LA 70804

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

MID-BARATARIA SEDIMENT DIVERSION PROJECT

STATE PROJECT NUMBER: BA-163
FEDERAL PROJECT NUMBER:

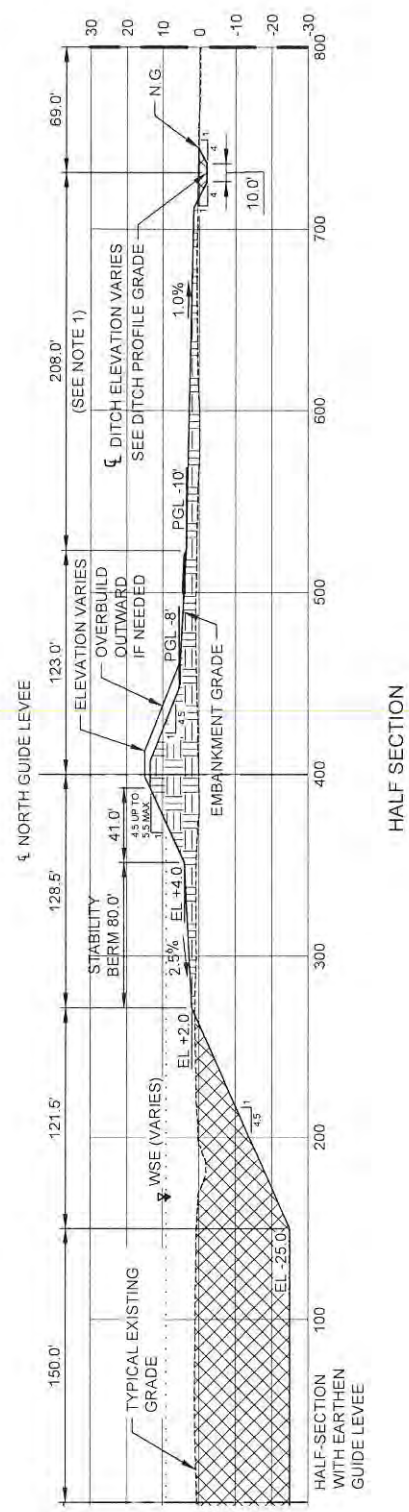
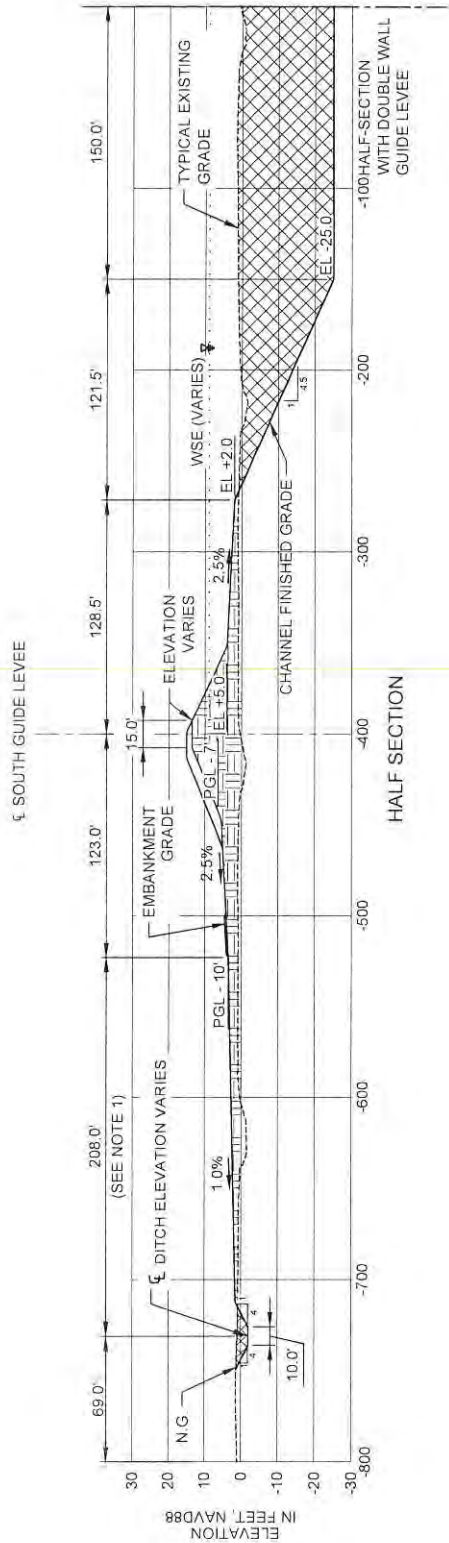
TYPICAL CONVEYANCE CHANNEL SECTION (1 OF 2)

DATE: JUNE 2016
SHEET 7 OF 12

DRAWN BY: K. CANTU

DESIGNED BY: K. GUILLORY, P.E.

APPROVED BY: R. SIMONEAUX, P.E.



PHASE 2 TYPICAL SECTION (LOOKING DOWNSTREAM) FROM STA 42+00 TO STA 125+00
 HORIZ SCALE: 1" = 100'
 VERT SCALE: 1" = 50'

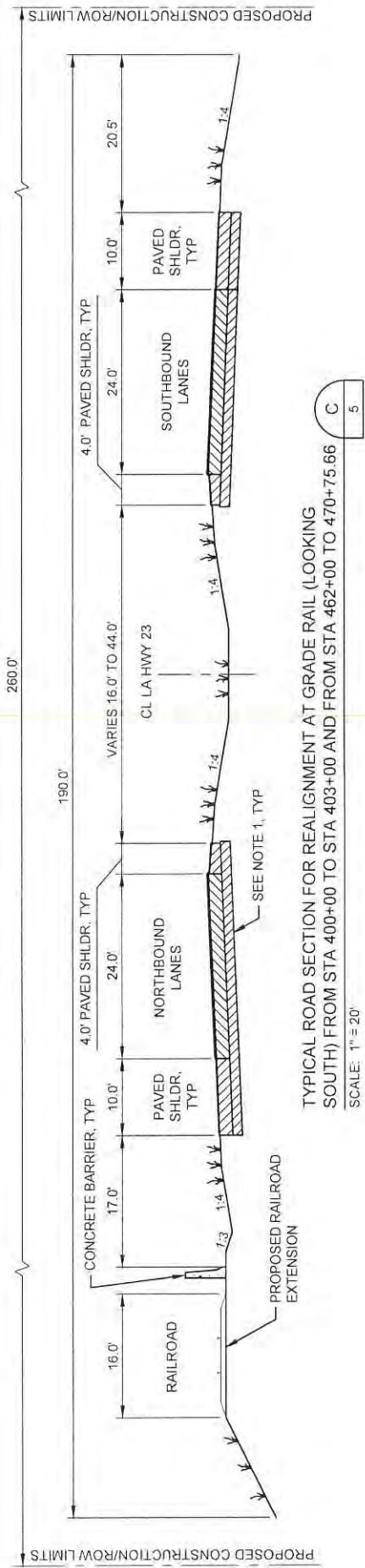


LEGEND

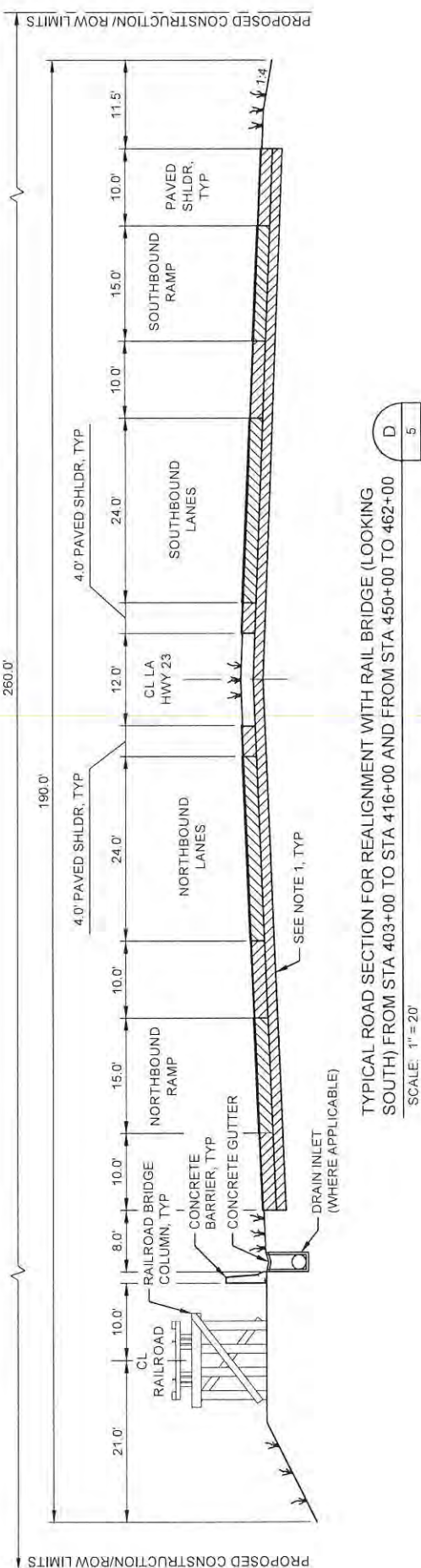
	EARTHEN FILL AREA
	SAND FILL AREA
	EXCAVATION AREA

NOTES:
 1. DIMENSIONS AND ROW LINE SHOWN FOR CHANNEL WEST OF LA 23, ROW LINE #700' EAST OF LA 23.

APPLICATION BY: CPRA P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MID-BARATARIA SEDIMENT DIVERSION PROJECT	TYPICAL CONVEYANCE CHANNEL SECTION (2 OF 2)
	DESIGNED BY: K. GUILLORY, P.E.	APPROVED BY: R. SIMONEAUX, P.E.	STATE PROJECT NUMBER: BA-153	DATE: JUNE 2016
DRAWN BY: K. CANTU	FEDERAL PROJECT NUMBER:			SHEET 8 OF 12



TYPICAL ROAD SECTION FOR REALIGNMENT AT GRADE RAIL (LOOKING SOUTH) FROM STA 400+00 TO STA 403+00 AND FROM STA 462+00 TO 470+75.66
SCALE: 1" = 20'



TYPICAL ROAD SECTION FOR REALIGNMENT WITH RAIL BRIDGE (LOOKING SOUTH) FROM STA 403+00 TO STA 416+00 AND FROM STA 450+00 TO 462+00
SCALE: 1" = 20'

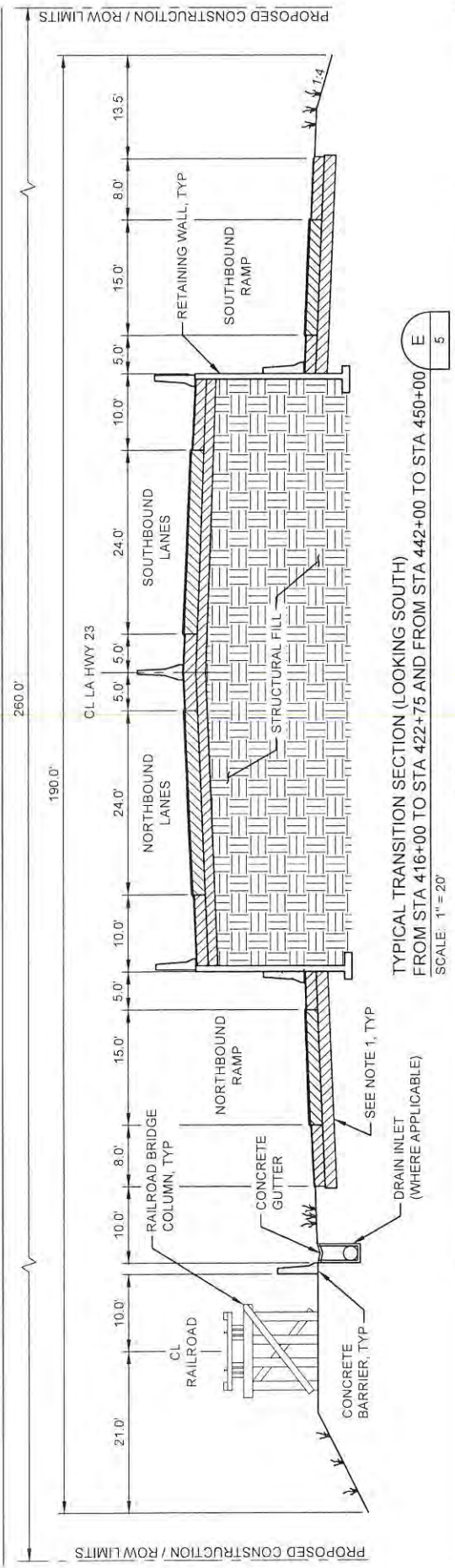


NOTES:

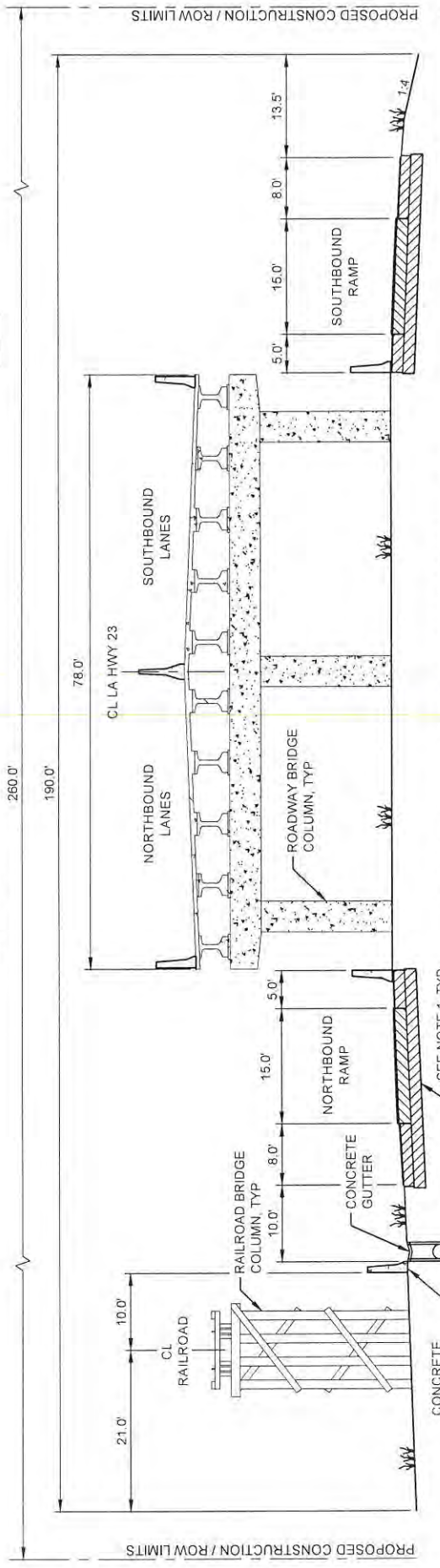
1 PAVEMENT SECTION TO BE DETERMINED FOR THE FINAL DESIGN.



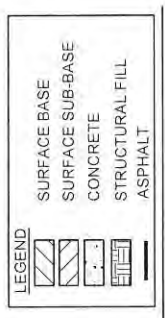
APPLICATION BY: CPRRA P.O. BOX 40027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	MID-BARATARIA SEDIMENT DIVERSION PROJECT	TYPICAL ROADWAY SECTIONS (1 OF 2)
DRAWN BY: K. CANTU	DESIGNED BY: K. GULLORY, P.E.	APPROVED BY: R. SIMONEAUX, P.E.	DATE: JUNE 2016
	FEDERAL PROJECT NUMBER:	STATE PROJECT NUMBER: BA-153	SHEET 9 OF 12



TYPICAL TRANSITION SECTION (LOOKING SOUTH)
 FROM STA 416+00 TO STA 422+75 AND FROM STA 442+00 TO STA 450+00
 SCALE: 1" = 20'

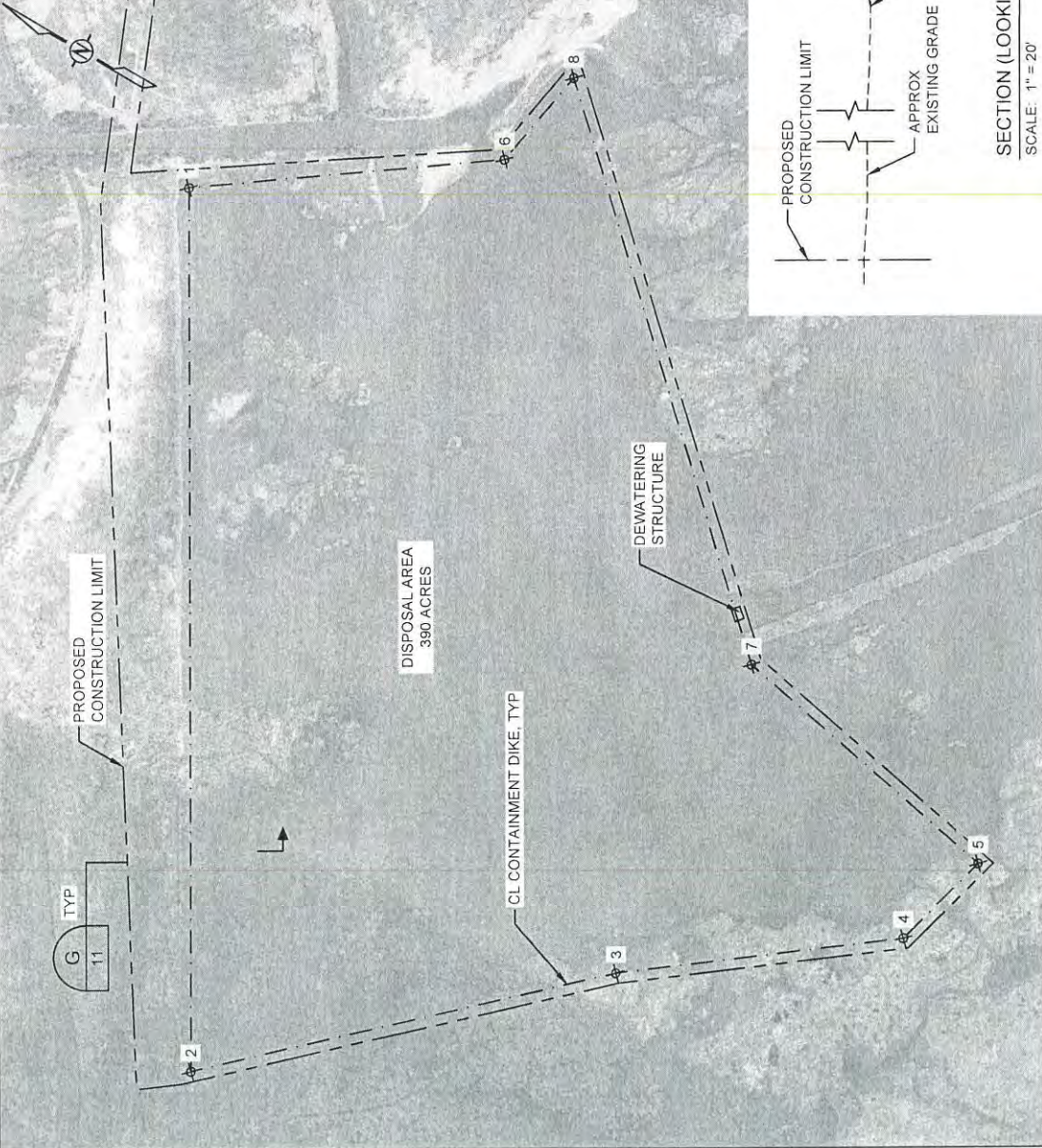


TYPICAL BRIDGE SECTION (LOOKING SOUTH)
 FROM STA 422+75 TO STA 442+00
 SCALE: 1" = 20'



NOTES:
 1. PAVEMENT SECTION TO BE DETERMINED FOR THE FINAL DESIGN.

APPLICATION BY: CPRA P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	MID-BARATARIA SEDIMENT DIVERSION PROJECT STATE PROJECT NUMBER: BA-153	TYPICAL ROADWAY SECTIONS (2 OF 2) DATE: JUNE 2016 SHEET 10 OF 12
DRAWN BY: K. CANTU	DESIGNED BY: K. GULLORY, P.E.	APPROVED BY: R. SIMONEAUX, P.E.	FEDERAL PROJECT NUMBER:

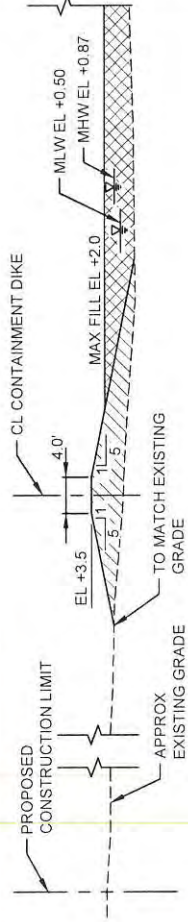


NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT EARTHEN CONTAINMENT DIKES, AS NECESSARY, ALONG THE PERIMETER OF EACH DISPOSAL AREA SHOWN. CONTAINMENT SHALL BE REQUIRED ALONG ALL DISPOSAL AREA BOUNDARIES THAT DO NOT MEET THE MINIMUM TYPICAL SECTION SHOWN ON THIS SHEET.
2. THE LOCATION OF THE DEWATERING STRUCTURE SHOWN ON THIS SHEET SHALL BE USED AS A GUIDE. FINAL LOCATIONS SHALL BE VERIFIED IN THE FIELD.
3. DEWATERING STRUCTURE WEIR ELEVATION SHALL MATCH DISPOSAL AREA MAXIMUM FILL ELEVATION.
4. THE CONTAINMENT DIKE WILL BE CONSTRUCTED WITH MATERIAL FROM THE INTERIOR OF THE DISPOSAL AREA.

POINT TABLE

POINT NO.	NORTHING / LATITUDE	EASTING / LONGITUDE
1	420304.07 / 29° 38' 57.25" N	3696058.60 / 90° 01' 33.98" W
2	417705.51 / 29° 38' 32.02" N	3691679.69 / 90° 02' 23.94" W
3	415878.04 / 29° 38' 13.73" N	3693412.79 / 90° 02' 04.53" W
4	414548.00 / 29° 38' 00.45" N	3694429.93 / 90° 01' 53.18" W
5	414394.88 / 29° 37' 58.87" N	3695020.34 / 90° 01' 46.51" W
6	418818.70 / 29° 38' 42.42" N	3697124.11 / 90° 01' 22.10" W
7	416103.42 / 29° 38' 15.75" N	3695342.93 / 90° 01' 42.63" W
8	418712.63 / 29° 38' 41.31" N	3697732.34 / 90° 01' 15.22" W



SECTION (LOOKING EAST)
SCALE: 1" = 20'



PLAN
SCALE: 1" = 1000'



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

MID-BARATARIA SEDIMENT DIVERSION PROJECT

DISPOSAL AREA

APPLICATION BY:
CPRA
P.O. BOX 44027
BATON ROUGE, LA 70804

DRAWN BY: K. CANTU

DESIGNED BY: K. GUILLORY, P.E.

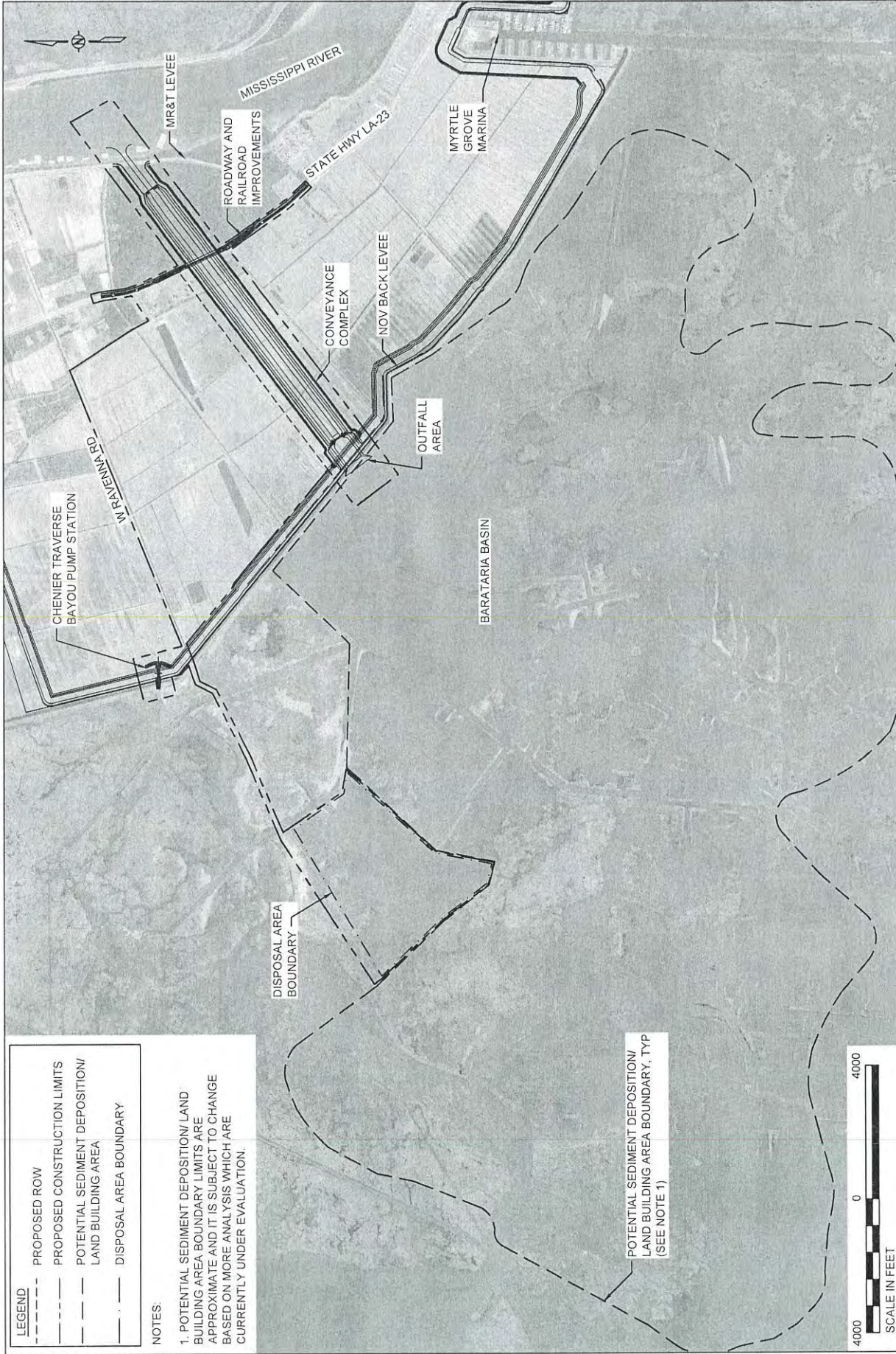
APPROVED BY: R. SIMONEAUX, P.E.

STATE PROJECT NUMBER: BA-153

DATE: JUNE 2016

FEDERAL PROJECT NUMBER:

SHEET 11 OF 12



LEGEND	
---	PROPOSED ROW
---	PROPOSED CONSTRUCTION LIMITS
---	POTENTIAL SEDIMENT DEPOSITION/ LAND BUILDING AREA
---	DISPOSAL AREA BOUNDARY

NOTES:
 1. POTENTIAL SEDIMENT DEPOSITION/ LAND BUILDING AREA BOUNDARY LIMITS ARE APPROXIMATE AND IT IS SUBJECT TO CHANGE BASED ON MORE ANALYSIS WHICH ARE CURRENTLY UNDER EVALUATION.

POTENTIAL SEDIMENT DEPOSITION/ LAND BUILDING AREA BOUNDARY, TYP (SEE NOTE 1)



APPLICATION BY: CPRA P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		MID-BARATARIA SEDIMENT DIVERSION PROJECT	POTENTIAL SEDIMENT DEPOSITION/LAND BUILDING AREA
	DESIGNED BY: K. GUILLORY, P.E.	APPROVED BY: R. SIMONEAUX, P.E.	STATE PROJECT NUMBER: BA-153	DATE: JUNE 2016
DRAWN BY: K. CANTU	FEDERAL PROJECT NUMBER:		SHEET 12 OF 12	

P20131098 Needs and Alternatives Justification

Background

The proposed sediment diversion project was initially identified as part of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) funded Mississippi River Sediment, Nutrient and Freshwater Redistribution Study (MRSNFR) in 2000. Subsequent studies ensued relevant to the sediment diversion alternatives analysis including location, diversion flow, and ancillary features such as various combinations of marsh creation and sediment introduction. In 2001, the CWPPRA task force approved study of the Delta Building Diversion at Myrtle Grove (BA-33) with the National Marine Fisheries Service (NMFS) as the federal sponsor; a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published in the Federal Register in 2002 and the public scoping resulted in a range of diversion operation for further analysis. The project was evaluated as a near-term critical restoration feature in the U.S. Army Corps of Engineers (USACE) Louisiana Coastal Area (LCA) Final Programmatic EIS dated 2005 and included in the LCA restoration plan. The Water Resources Development Act (WRDA) of 2007 authorized USACE to carry out the Medium Diversion at Myrtle Grove in accordance with the LCA restoration plan. As a result, the CWPPRA project was de-authorized in 2008 and transferred to USACE for implementation. Also in 2007, the State of Louisiana included the CWPPRA Mississippi River Diversion at Myrtle Grove with Dedicated Dredging in the Comprehensive Master Plan for a Sustainable Coast (Master Plan). The Master Plan was updated in 2012 and the Mid-Barataria Sediment Diversion was identified as a project in the First Implementation Period (2012-2031). In 2016, the Natural Resources Damage Assessment (NRDA) Trustees established Mississippi River Diversions as an approved restoration alternative to restore resources injured by the Deepwater Horizon oil spill.

Myrtle Grove Freshwater Diversion (Siphon) (BA-24) (1996-1998)

The Myrtle Grove Freshwater Diversion was moved forward under CWPPRA for further study with NMFS as the federal sponsor. Conceptual design consisted of a multiple pipe system capable of delivering up to 2,100 cfs of water from the Mississippi River to the back marsh area west of Myrtle Grove.

Myrtle Grove Ecosystem Restoration Project—Coast 2050 (1997-1998)

The Louisiana Coastal Wetlands Conservation and Restoration Task Force (a federal-state multi-agency partnership), in partnership with the Wetlands Conservation and Restoration Authority, published *Coast 2050: Toward a Sustainable Coastal Louisiana* in December 1998. *Coast 2050* set forth a new approach to 1) sustain a coastal ecosystem with the essential functions and values of the natural ecosystem; 2) restore the ecosystem to the highest practicable acreage of productive and diverse wetlands; and 3) accomplish restoration through an integrated program that has multiple use benefits for all coastal Louisiana communities and resources.

The 15,000 cfs delta-building diversion at Myrtle Grove was identified for near-term implementation (1-5 years) following completion of the Mississippi River Sediment, Nutrient, and Freshwater Redistribution (MRSNFR) Feasibility Study. The rationale was the Myrtle Grove diversion would provide information to assist in the planning of the next Mississippi River diversion.

Mississippi River Sediment, Nutrient, and Freshwater Redistribution (MRSNFR) Study
(draft report & environmental resources document dated July 2000)

The CWPPRA Task Force funded the MRSNFR feasibility study with USACE as study lead. A Myrtle Grove Sediment Diversion with a capacity of 15,000 cfs through gated culverts at the Mississippi River was included as a major sediment diversion in the Initial Alternatives. Also included in the Initial Alternatives was a 5,000 cfs Myrtle Grove Freshwater Diversion through a siphon. The screening process resulted in both the Myrtle Grove Sediment Diversion and the Myrtle Grove Freshwater Diversion at Ironton being carried forward into the Intermediate Array of Alternatives.

The Myrtle Grove Freshwater Diversion would run at a capacity of 5,000 cfs and freshen or stabilize salinities in the Round Lake/Lake Laurier vicinity. Although not a sediment diversion, it was expected that this diversion would introduce sediment into the Barataria Basin, creating over 1,400 ac of marsh and sustaining approximately 6,500 ac of emergent wetlands over 50 years. The total cost was estimated to be \$29,679,827. Located at River Mile 59 AHP, the diversion structure would consist of four 10 ft x 10 ft gated concrete box culverts approximately 400 ft long under LA 23. The highway would be relocated closer to the railroad so the culverts could be placed under both facilities. In order to efficiently capture freshwater, the invert of the entrance channel would be placed at a depth of -10 NGVD with a radius of 130 ft; the conveyance channel would run 6,000 feet from the entrance channel to the outlet channel and would be 100 feet wide. Parallel guide levees would be constructed to maintain hurricane protection and a pump station would be constructed to provide local drainage.

The Myrtle Grove Sediment Diversion would run at a capacity of 15,000 cfs to freshen the lower Barataria Basin. Located at RM 59 AHP, the diversion structure would consist of five 16 ft x 16 ft gated concrete box culverts approximately 400 feet long under LA 23. The highway would be relocated closer to the railroad so the culverts could be placed under both facilities. In order to efficiently capture sediment, the invert of the entrance channel would be placed at a depth of -15 ft NGVD with a radius of 450 feet and proceed 800 feet to 1,000 feet into the box culverts for transport to the basin. A channel with a 230 ft bottom would be dredged to Wilkinson Canal; this channel would bend with a radius of 700 feet as it approached the canal in order to provide better flow conditions. Channel closures would be placed in channels intersecting Wilkinson Canal. Approximately 6,000 ac of marsh would be created; at the end of 50 years 12% of the 1990 marsh acreage would be lost but there would still be approximately 28,000 more acres of marsh than if the diversion had not been implemented.

A diversion at Myrtle Grove with locks was also evaluated. A 15 ft long pilot channel would be excavated from the Mississippi River to Barataria Bay. The bottom width of the pilot channel would be 200 feet and the invert would be -10 ft NGVD. Two 45 ft x 130 ft x 830 ft lock chambers would be constructed in the initial project year with additional chambers constructed in years 10 and 35. Approximately 5 years after construction, a closure would be constructed across the Mississippi River channel in order to divert river flow down the pilot channel. Without locks, approximately 70% of Mississippi River flow and sediment would be diverted into the Barataria Basin.

Myrtle Grove Ecosystem Restoration Project (CWPPRA)

Primary purpose of study, conducted under MRSNFR, was identification of the recommended plan to provide maximum benefit to the study area while taking into account sustainability and cost. The project objective was creation of a sustainable, functional ecosystem with a focus on sediment delivery through the restoration of fresh and intermediate marshes in the upper, highly deteriorated portions of the study area and to restore marsh and reduce land loss rates in the southern portions of the basin and reduce average annual salinities throughout the study area. Study focused on a diversion located on the right descending bank of the Mississippi River between RM 61.3 and 60.8.

The study integrated the alternatives identified in the MRSNFR. Studied flow rates included 2,500 cfs, 5,000 cfs, and 15,000 cfs in addition to dedicated dredging.

Myrtle Grove—LCA Recommended Restoration Plan (2000-2005)

The study team defined the primary area of wetland restoration to be bounded on the east by the Citrus Lands levee, on the north by the southern extent of “The Pen,” on the west by the Barataria Bay Waterway and the Bayou Grande Cheniere ridge, and on the south by the southern extents of Round Lake and Lake Laurier. The team adopted the LCA proposed alternatives for diversion capacities of 5,000 cfs and 15,000 cfs and modified an LCA proposed alternative to an operation of 5,000 cfs 4 out of 5 years and 15,000 cfs in the 5th year. The team also proposed a diversion capacity of 2,500 cfs.

As part of the LCA feasibility study, a total of five operation scenarios were evaluated for Myrtle Grove. These scenarios were: 1) a 5,000 cfs diversion; 2) a 15,000 cfs diversion; 3) a 38,000 cfs diversion with sediment enrichment; 4) a 75,000 cfs diversion with sediment enrichment; and 5) a 150,000 cfs diversion with sediment enrichment. Plan formulation resulted in a medium diversion (5,000 cfs – 15,000 cfs) and a large diversion (greater than 15,000 cfs) carried forward. Following further evaluation, the medium diversion was selected as the alternative to carry forward.

As proposed in the LCA feasibility study, the Medium Diversion at Myrtle Grove with Dedicated Dredging considered an operation range between 2,500 cfs and 15,000 cfs to create up to 19,700 new acres of wetlands. This diversion would be operated in conjunction with the Davis Pond Freshwater Diversion, which is authorized for control of salinities in the Barataria Basin; the operation of the Davis Pond project would be modified in order to achieve the goals of the Myrtle Grove project. A total of 19 to 23 sites would be selected for the placement of dredged material to create a total of 6,500 acres of marsh; approximately 2 million cubic yards of material would be dredged from the Mississippi River for the dedicated marsh creation.

CWPPRA Delta Building Diversion at Myrtle Grove (BA-33) (2001-2008)

In 2001, the CWPPRA Task Force approved feasibility study for a project titled Delta Building Diversion at Myrtle Grove with NMFS as the federal sponsor. As proposed, this project would combine a freshwater diversion of the Mississippi River in the vicinity of Myrtle Grove with dedicated dredging from borrow sites in the Mississippi River to create marsh in the vicinity of Bayou Dupont, the Bayou Barataria Waterway, and/or the Wilkinson Canal. A NOI to prepare an EIS was published in the Federal Register

and the public scoping resulted in a range of diversion operations from 2,500 cfs to 15,000 cfs for further analysis.

Per the project fact sheet, the project would install five 16 ft x 16 ft gated box culverts on the right descending bank of the Mississippi River in the vicinity of Myrtle Grove. The intake structure would be set at -15 ft NGVD and convey a maximum of 15,000 cfs to the outfall at the basin. Sediment capture would be maximized through a reverse curve inflow channel. Other project features would include a conveyance channel with parallel mainline flood control levees, and outflow channel with guide levees, and, potentially, a pump station.

In 2006, the process began to de-authorize the project and transfer it from CWPPRA to USACE's LCA program. The rationale was the project was beyond traditional CWPPRA efforts in terms of scope and cost; also, a Medium Diversion at Myrtle Grove with Dedicated Dredging project was identified as a critical near-term restoration project in the LCA Chief's Report.

Louisiana Master Plan for a Sustainable Coast (2007)

A Technical Group of scientists evaluated conceptual scenarios for Mississippi River diversions in 2006 at the "Envisioning the Future of the Gulf Coast" symposium. A freshwater diversion at Myrtle Grove was recommended. The Mississippi River Diversion at Myrtle Grove with Dedicated Dredging was evaluated in the Master Plan; the evaluated diversion would operate at a flow between 2,500 cfs to 15,000 cfs to transport freshwater from the Mississippi River to the basin and dredged material from the river would be transported to the Barataria Basin via pipeline.

Medium Diversion at Myrtle Grove with Dedicated Dredging (LCA, 2008-2014)

WRDA 2007 included an authorization for USACE to prepare a feasibility study and EIS for the Medium Diversion at Myrtle Grove with Dedicated Dredging under the LCA program. This project was conditionally authorized in the 2005 LCA Chief's Report, pending the completion of a feasibility study. For the Myrtle Grove cost-shared study, the project was described as a freshwater diversion ranging from 2,500 cfs to 15,000 cfs coupled with dedicated dredging to create up to 19,700 ac of new wetlands.

The dog-legged alignment, referred to as Original USACE Alignment at RM 60.2, was designed to carry a flow of 15,000 cfs to the basin; the sediment/water ratio (SWR) was 0.26. A Modified Alignment of a straight channel from river to basin, located at RM 60.7, was modeled with capacities of 15,000 cfs, 45,000 cfs, and 75,000 cfs. The results were published in 2011 in a report titled, "Myrtle Grove Delta Building Diversion Modeling Effort in Support of the LCA Medium Diversion at Myrtle Grove with Dedicated Dredging Project Data Collection, Preliminary Design and Modeling Initiative."

Louisiana Comprehensive Master Plan for a Sustainable Coast (2012)

Modeling conducted for the evaluation of projects against the Future Without Action scenario showed that sediment diversions are essential to sustaining coastal Louisiana. The 2012 Master Plan focused on sediment diversions, rather than freshwater diversions, as a land-building restoration tool. A 50,000 cfs sediment diversion at Myrtle Grove was included in the First Implementation Period (2012-2031).

BA-153, State Only E&D (2012-2014)

CPRA entered into a contract with HDR Engineering in 2012 to provide services for the design of the LCA recommended 75,000 cfs diversion structure at RM 60.7 to capture and transport sediment and freshwater from the Mississippi River and convey it to the mid-Barataria Basin through a constructed channel. The project utilized the SWR results and Modified Alignment from the State-NGO modeling.

Programmatic Damage Assessment and Restoration Plan (2016)

Under the Oil Pollution Act (OPA), the Trustees evaluated injuries to natural resources and natural resource services and then identified the actions to restore, replace, or acquire natural resources or services equivalent to those injured by the Deepwater Horizon BP Spill. When implemented, the goal for these actions is to return the natural resources and natural resource services to the condition they would have been in if the incident had not occurred. OPA defines natural resource services as “the functions performed by a natural resource for the benefit of another natural resource (ecological services) and/or the public.” This evaluation was documented in a Programmatic Damage Assessment and Restoration Plan (PDARP).

A total of three (3) action alternatives were evaluated along with the No Action Alternative. Alternative A, Comprehensive Integrated Ecosystem Restoration, emphasizes the broad ecosystem benefits that can be realized through coastal habitat restoration in combination with resource-specific restoration; this is the preferred alternative. Alternative B focuses on restoring as directly as practical for assessed injuries. Alternative C defers restoration plan development in favor of continued injury assessment with development of a comprehensive plan at a later date. Alternative D is the natural recovery/no-action alternative. The alternatives were evaluated under the following OPA standards: 1) cost; 2) extent to which goals and objectives are met; 3) likelihood of success; 4) extent of preventing future injury and avoiding collateral injury as a result of implementation; 5) extent to which more than one natural resource and/or service is benefitted; 6) effect on public health and safety; and 7) consistency with programmatic Trustee goals and the restoration types.

The Trustees developed four (4) programmatic goals for restoration: 1) Restore and Conserve Habitat; 2) Restore Water Quality; 3) Replenish and Protect Living Coastal and Marine Resources; and 4) Provide and Enhance Recreational Opportunities. Restoration types were developed as sub-categories to the larger programmatic goals. The two (2) restoration types under Restore and Conserve Habitat are: 1) Wetlands, Coastal, and Nearshore Habitats and 2) Habitat Projects on Federally Managed Lands. Both of these restoration types were proposed to benefit habitats as well as injured species of fish and invertebrates in the water column, marine mammals, and birds by providing food, shelter, breeding, and nursery habitat.

Goals of the Wetlands, Coastal, and Nearshore Habitats Restoration Type are to: 1) restore a variety of interspersed and ecologically connected coastal habitats to maintain ecosystem diversity with a particular focus on maximizing ecological functions for the range of resources injured by the spill; 2) restore for injuries in habitats in the geographic areas where the injuries occurred while considering

approaches that provide resiliency and sustainability; and 3) restoration of habitats in appropriate combinations for any given geographic area by considering design factors such as connectivity, size, and distance between projects to address injuries to the associated living coastal and marine resources and restore the ecological functions provided by those habitats. Specific projects were not evaluated in the PDARP; however, Under Alternative A, controlled Mississippi River diversions, such as MBSD, are one such restoration approach for implementation to accomplish the goals of this restoration type.

5a. Describe the Project

The Mid-Barataria Sediment Diversion (MBSD) is one of 33 conceptual projects identified by CPRA for the first implementation period (2012-2031) in Louisiana's Comprehensive Master Plan for a Sustainable Coast (2012 Master Plan). The Project footprint is from the Mississippi River to the mid-Barataria Basin, just west of the back levee, spanning a length of approximately two miles and width of approximately 1600 feet for the gravity conveyance structure and appurtenant structures.

The Project consists of the construction of an intake control structure on the right descending bank of the Mississippi River at River Mile 60.7, through a section of the existing Mississippi River and Tributaries (MR&T) levee. The structure would be operated to reestablish the connection between the Mississippi River and the mid-Barataria Basin by transporting sediment, freshwater, and nutrients through the gravity conveyance structure, leading across land and through the future federal New Orleans to Venice (NOV) Hurricane Protection Levee, to an outfall or receiving area in the mid-Barataria Basin. The outfall area is located south of the Bayou Dupont Sediment Delivery Project (BA-39), the Mississippi River Long Distance Sediment Pipeline (BA-43EB), and the Bayou Dupont Marsh and Ridge Creation (BA-48). Additional Project features include relocation and replacement of segments of Louisiana Highway 23 and the New Orleans Gulf Coast Rail Road over the gravity conveyance structure.

The project also incorporates a pump station to be located in the northwestern portion of the Project area. Forced drainage is currently provided by Wilkinson Canal Pump Station located near Myrtle Grove to the south of the project area. The Project will require the modification of internal drainage collection swales and the construction of a new drainage pump station north of the conveyance channel in order to capture and convey area drainage north of the channel to the Barataria Basin. Right-of-way and road access will be required for the construction and maintenance of the pump station.

Relocations of water and electrical utility lines will be needed in order to accommodate the construction and operation of the diversion channel and the proposed LA 23 and New Orleans Gulf Coast Rail Road bridges. A 22 inch crude oil pipeline is located immediately west of the proposed channel outfall. All infrastructure and utility improvements and relocations will be based upon continued service during construction and will be designed and constructed using utility owner criteria and guidelines and addressing hurricane criteria during interim and final phases of construction.

An Operations and Maintenance Plan will be developed for the Project prior to construction.

An Adaptive Management Plan will be developed to maximize sediment transport from the Mississippi River to the mid-Barataria Basin to reduce land loss rates and sustain wetlands through the delivery of sediment, freshwater, and nutrients. The Adaptive Management Plan would monitor the diversion control structure and outfall area and allow for variable flow rates to respond to seasonal, sediment, and basin conditions, maximizing the benefits of sediment transport for restoration.

Step 8.c. Funding

CPRA anticipates construction the Mid-Barataria Sediment Diversion with Natural Resource Damage Assessment (NRDA) funds allocated to the State of Louisiana by the Deepwater Horizon BP Spill Consent Decree (dated April 2016).

Step 10a. Excavation					
<u>Location</u>	<u>Habitat Type (existing)</u>	<u>Feature</u>		<u>Area (acres)</u>	<u>Excavation (CY)</u>
Mississippi River	Riverine	Diversion Channel		14.0	350,000
Batture	Forested Wetlands	Diversion Channel		4.2	202,796
MR&T levee west to LA 23	Forested Wetlands	Diversion Channel		3.2	127,050
LA 23 west to back levee	Emergent Wetlands	Diversion Channel		30.9	1,247,510
	Open Water Canal Drainage {WOTUS}	Diversion Channel		1.8	57,112
MR&T levee to back levee	Non-wetland {uplands}	Diversion Channel		230.0	1,765,532
Barataria Basin	Waterbottom	Outfall Transition Zone		4.0	100,000
Cumulative Subtotals	Riverine			14.0	350,000
	Wetlands			38.3	1,577,356
	Open Water Canal Drainage {WOTUS}			1.8	57,112
	Waterbottom Emergent wetlands			4.0	100,000
	Non-wetland {uplands}			230.0	1,765,532
			Total	288.0	3,850,000

Step 10b & 10c. Fill					
<u>Location</u>	<u>Habitat Type (existing)</u>	<u>Feature</u>	<u>Material</u>	<u>Area (acres)</u>	<u>Fill (CY)</u>
MR&T levee west to LA 23	Forested Wetlands	Construction access	Soil, gravel	2.4	11,568
		Guide Levees	Soil, rock, concrete	2.4	25,931
LA 23 west to back levee	Emergent Wetlands	Construction access	Soil, gravel	22.8	110,207
		Guide Levees	Soil, rock, concrete	24.7	221,031
LA 23 west to back levee	Open Water Canal Drainage {WOTUS}	Construction access	Soil, gravel	2.1	10,261
		Guide Levees	Soil, rock, concrete	2.4	23,293
MR&T levee to back levee	Non-wetland {uplands}	Construction access	Soil, gravel	64.5	311,964
		Guide Levees	Soil, rock, concrete	41.5	1,129,746
Construction Routes	Non-wetland {uplands}	Access Haul Roads	Soil, gravel	1.5	8,000
Barataria Basin {Benefits}	Waterbottom Emergent wetlands	Nourishment Disposal Area	Topsoil, soil	390*	2,300,000
Cumulative Subtotals	Wetlands			52.3	368,737
	Open Water Canal Drainage {WOTUS}			4.5	33,554
	Non-wetland {uplands}			107.5	1,449,710
	Waterbottom Emergent wetlands	Land marsh building		390	2,300,000
			Total	554.3	4,152,001

10b. and 10c. Supplemental Fill Information

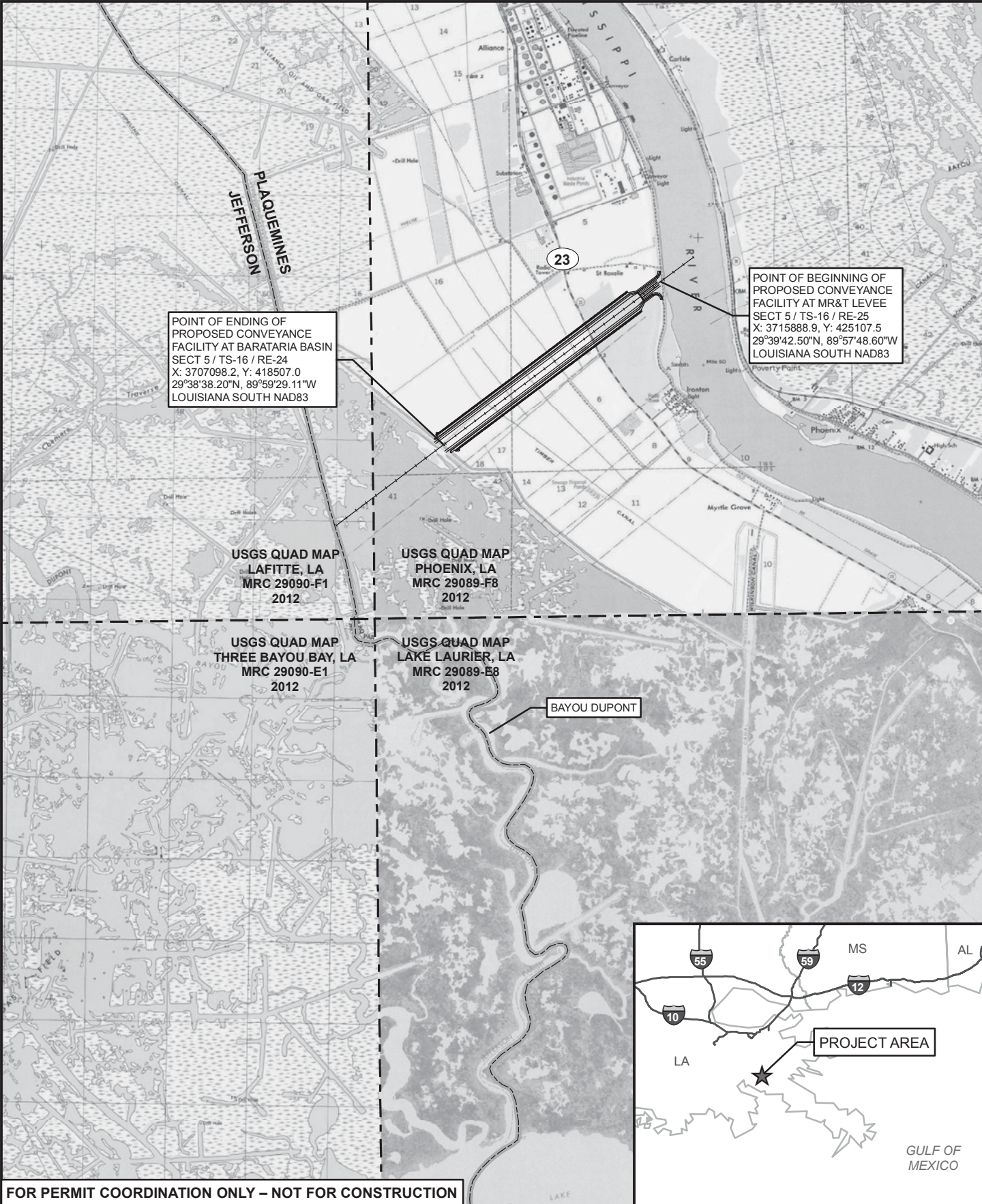
Note: Due to preliminary design stage, the amount of fill material by type (e.g., soil, rock, concrete, etc.) is approximate.

* Excavated from channel and placed in Barataria Basin.

11a. Total acres of wetlands and/or waterbottoms filled and/or excavated:

- Wetlands excavated = 38.3 acres
- Wetlands filled = 52.3 acres
- Waterbottom excavated = 4.0 acres
- Waterbottom filled = 390 acres

FILE: O:\DEPT037_DALLAS\ENGINEERING\ENVSCIENCES\200965_099_CPRA_MID_BARATARIA_DIVERSION\MAP_DOCS\FIGURES\PERMIT_4345\MBS\PERMIT4345_FIG1_VICINITY_8X11.MXD



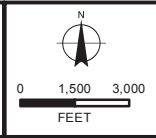
FOR PERMIT COORDINATION ONLY – NOT FOR CONSTRUCTION

**MID-BARATARIA
SEDIMENT DIVERSION
(BA-153) PROJECT**
VICINITY MAP
PLAQUEMINES AND JEFFERSON
PARISH, LOUISIANA

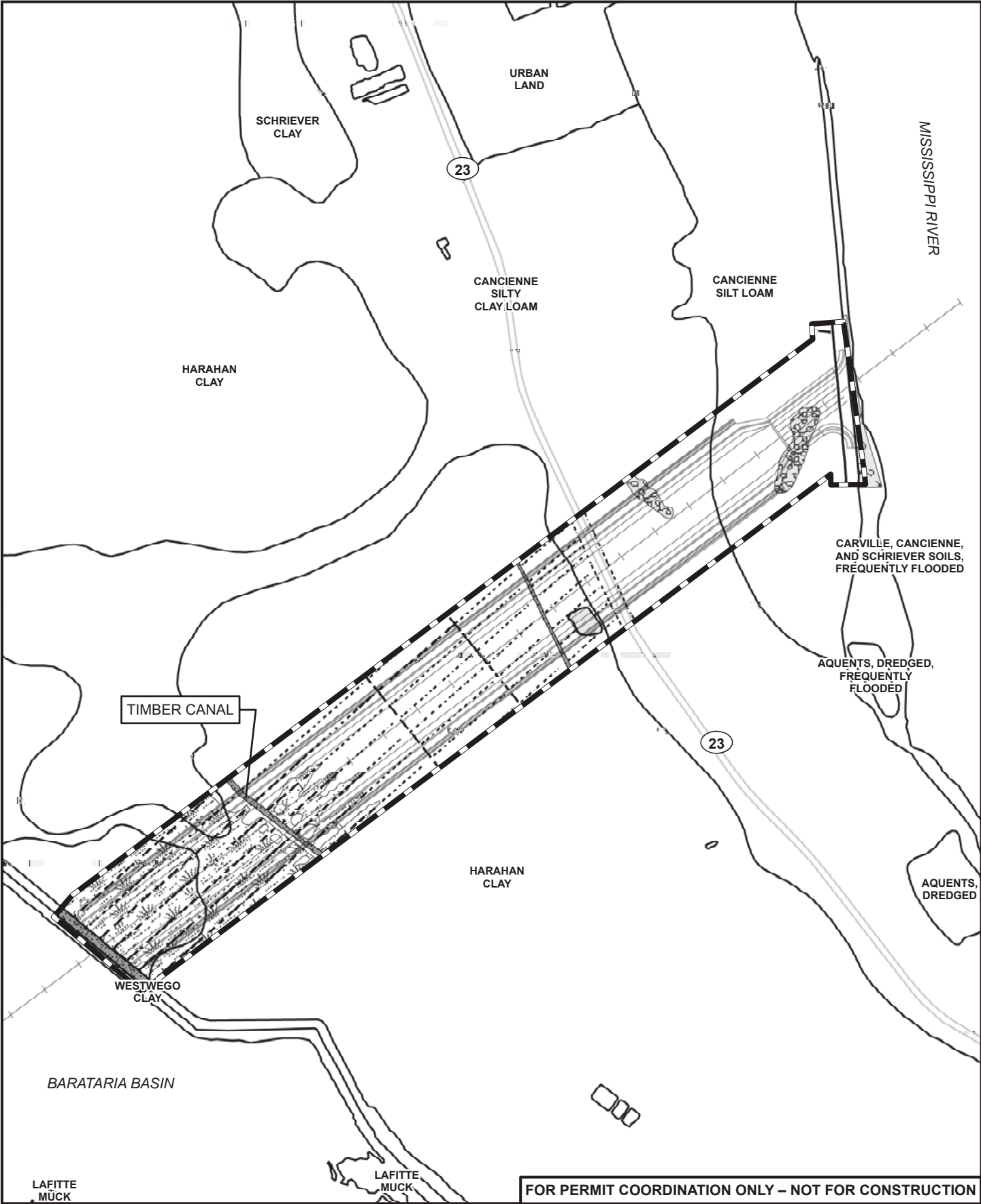
LEGEND

- 15% PROJECT FOOTPRINT
- ▭ PARISH BOUNDARY

USGS QUADS: PHOENIX, LAFITTE, THREE BAYOU BAY, LAKE LAURIER (2012)



FILE: O:\DEPT037_DALLASENGINEERING\ENVSCIENCES\200965_099_CPRA_MID_BARATARIA_DIVERSIONMAP_DOCS\FIGURES\PERMIT_4345\IMBSD_PERMIT4345_FIG2_DELIN_8X11.MXD



FOR PERMIT COORDINATION ONLY – NOT FOR CONSTRUCTION

**MID-BARATARIA
SEDIMENT DIVERSION
(BA-153) PROJECT**
DELINEATION AND PROPOSED
JURISDICTIONAL DETERMINATION
PLAQUEMINES AND JEFFERSON
PARISH, LOUISIANA

LEGEND	
WATERS OF THE U.S.	NOT WATERS OF THE U.S.
— DRAINAGE CHANNEL (SECTION 404)	— PRELIMINARY PROJECT FOOTPRINT
▨ CANAL (SECTION 404)	— 15% PROJECT FOOTPRINT
▨ FORESTED WETLAND (SECTION 10/404)	▨ NON-JURISDICTIONAL DRAINAGE FEATURE
▨ FORESTED WETLAND (SECTION 404)	▨ POND
▨ EMERGENT WETLAND (SECTION 404)	▨ SOIL

