APPENDIX E: 404(B)(1) ANALYSIS (SHORT FORM)

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

PROJECT TITLE. Louisiana Coastal Area (LCA), Beneficial Use of Dredged Material (BUDMAT) Program, Barataria Bay Waterway Project at Jefferson Parish, Louisiana

PROJECT DESCRIPTION.

Alternative BA-1 East – Bayou Perot/Bayou Rigolettes

The proposed Project consists of a marsh creation site (site) approximately 75 acres, referred to as Alternative BA-1 East. The site is located in the narrow corridor of wetlands that separate Bayou Perot and Bayou Rigolettes. See Figure 1.

The site perimeter will be approximately 8,500 continuous linear feet. The site will have a target elevation of +0.6 ft North American Vertical Datum 1988 (NAVD88), with a maximum tolerance of +/-0.5 ft (+0.1 ft to +1.1 ft NAVD88) after material settlement has occurred after the deposition of the material. Access from Barataria Bay Waterway (BBW) to the site would require dredging that would impact approximately 105 acres of open water.

Additionally, approximately 0.9 acres of existing marsh would be temporarily impacted from placement of the pipeline into the site. Within the site, approximately 1.75 acres of existing marsh and 72.2 acres of open water would be impacted from placement of the fill material for marsh creation. See Figure 2.

The oil and gas canals in the BBW that lead to the site are too shallow for loaded barges to traverse. Therefore, two access channels (“access corridors”) will be dredged in state owned water bottoms to allow for ingress and egress of the equipment required for the construction of the site (i.e., temporary pipeline, earth moving equipment, etc.). Barge mounted equipment will be used to create the two access corridors. The material excavated from the water bottoms to create the two access corridors will be loaded onto barges and transported to the site where the material will be placed into the site, using the excavated material and if necessary, any additional suitable material to complete the restoration of the two corridors to pre-construction conditions. The access corridor to the north portion of the site will be approximately 50 feet wide by 450 feet long and the access corridor to the south portion of the site will be approximately 50 feet wide by 50 feet long. It is anticipated that an additional 0.9 acres of existing fresh-intermediate marsh located in the access corridor may be temporarily impacted if one or both of the proposed access corridors prove to be insufficient. The approximately 105-acre access corridor from the BBW to the site would require additional excavation of shallow bottoms. See Figures 3.

The routine operation and maintenance dredging of the BBW federal navigation project is conducted by either hydraulic or mechanical dredging. For the construction of the site, the material dredged from the BBW will be loaded onto barges, transported to a designated pump-out location adjacent to the site, and then hydraulically offloaded using a temporary pipeline. Material removed from the access channel will be transported to the site where it will be incorporated into the proposed site. See Figure 4.

Although the operation and maintenance Federal Standard limitations would not apply to this Project, the final placement of material being pumped through the dredge pipeline would otherwise be handled in a manner similar to the handling of dredged materials for the normal operation and maintenance dredging of the BBW navigation project. Dredged material placed in the site will be held in place through the use of retention dikes which will likely be constructed using hay-bales, core-logs, sandbags, etc.

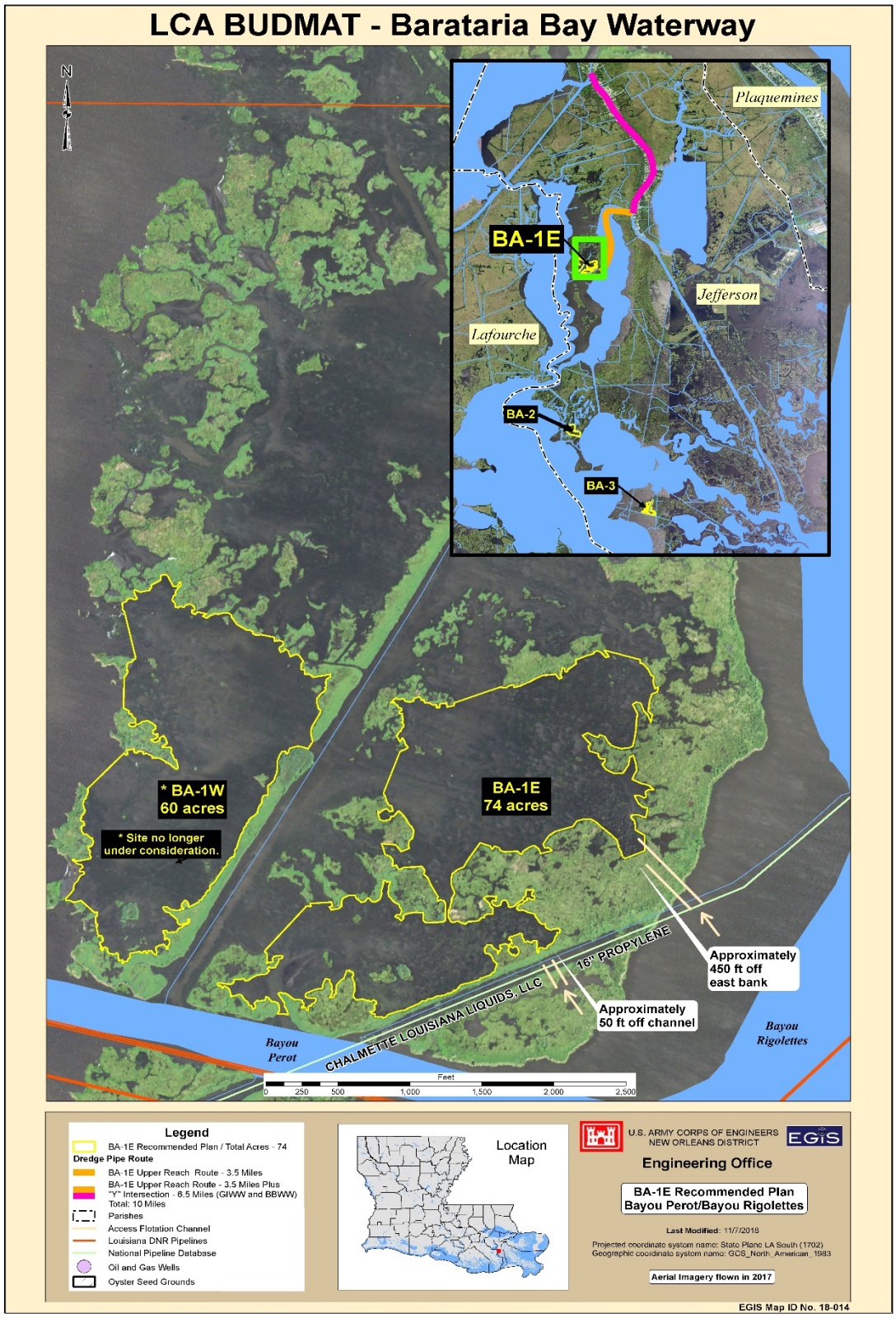
LCA BUDMAT - Barataria Bay Waterway
N
Plaquemines
BA-1E
Jefferson
Lafourche
BA-2
BA-3
* BA-1W
60 acres
* Site no longer
under consideration.
BA-1E
74 acres
16" PROPYLENE
CHALMETTE LOUISIANA LIQUIDS, LLC
Approximately
450 ft off
east bank
Approximately
50 ft off channel
Bayou
Perot
Bayou
Rigolettes
Feet
0 250 500 1,000 1,500 2,000 2,500
Legend
BA-1E Recommended Plan / Total Acres - 74
Dredge Pipe Route
BA-1E Upper Reach Route - 3.5 Miles
BA-1E Upper Reach Route - 3.5 Miles Plus
"Y" Intersection - 6.5 Miles (GIWW and BBWW)
Total: 10 Miles
Parishes
Access Flotation Channel
Louisiana DNR Pipelines
National Pipeline Database
Oil and Gas Wells
Oyster Seed Grounds
Location
Map
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
EGIS
Engineering Office
BA-1E Recommended Plan
Bayou Perot/Bayou Rigolettes
Last Modified: 11/7/2018
Projected coordinate system name: State Plane LA South (1702)
Geographic coordinate system name: GCS_North_American_1983
Aerial Imagery flown in 2017
EGIS Map ID No. 18-014

Figure 1.

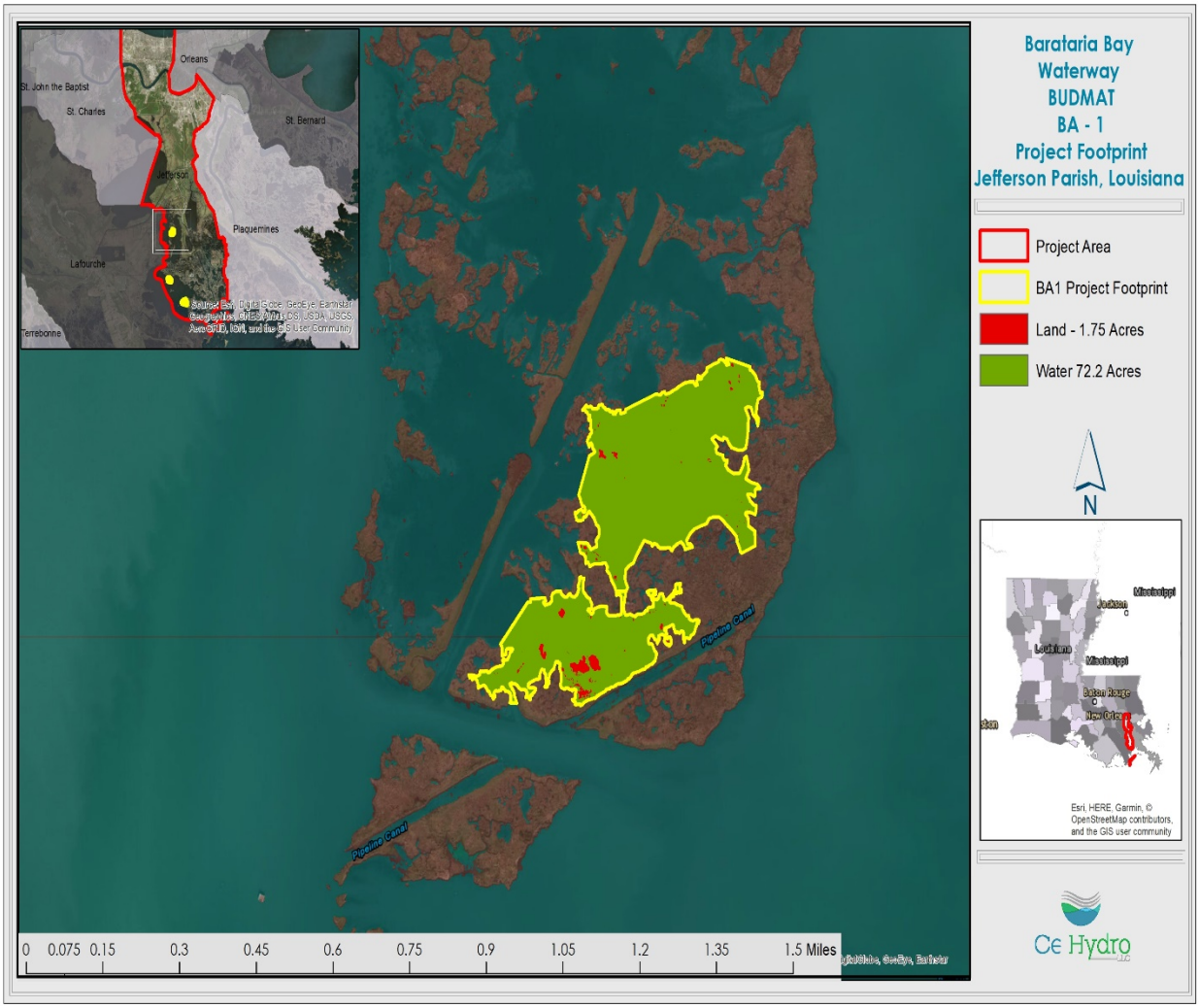
Barataria Bay
Waterway
BUDMAT
BA - 1
Project Footprint
Jefferson Parish, Louisiana
Project Area
BA1 Project Footprint
Land - 1.75 Acres
Water 72.2 Acres
N
Orleans
St. John the Baptist
St. Charles
St. Bernard
Jefferson
Plaquemines
Lafourche
Terrebonne
Pipeline Canal
Pipeline Canal
0 0.075 0.15 0.3 0.45 0.6 0.75 0.9 1.05 1.2 1.35 1.5 Miles
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Ce Hydro

Figure 2.

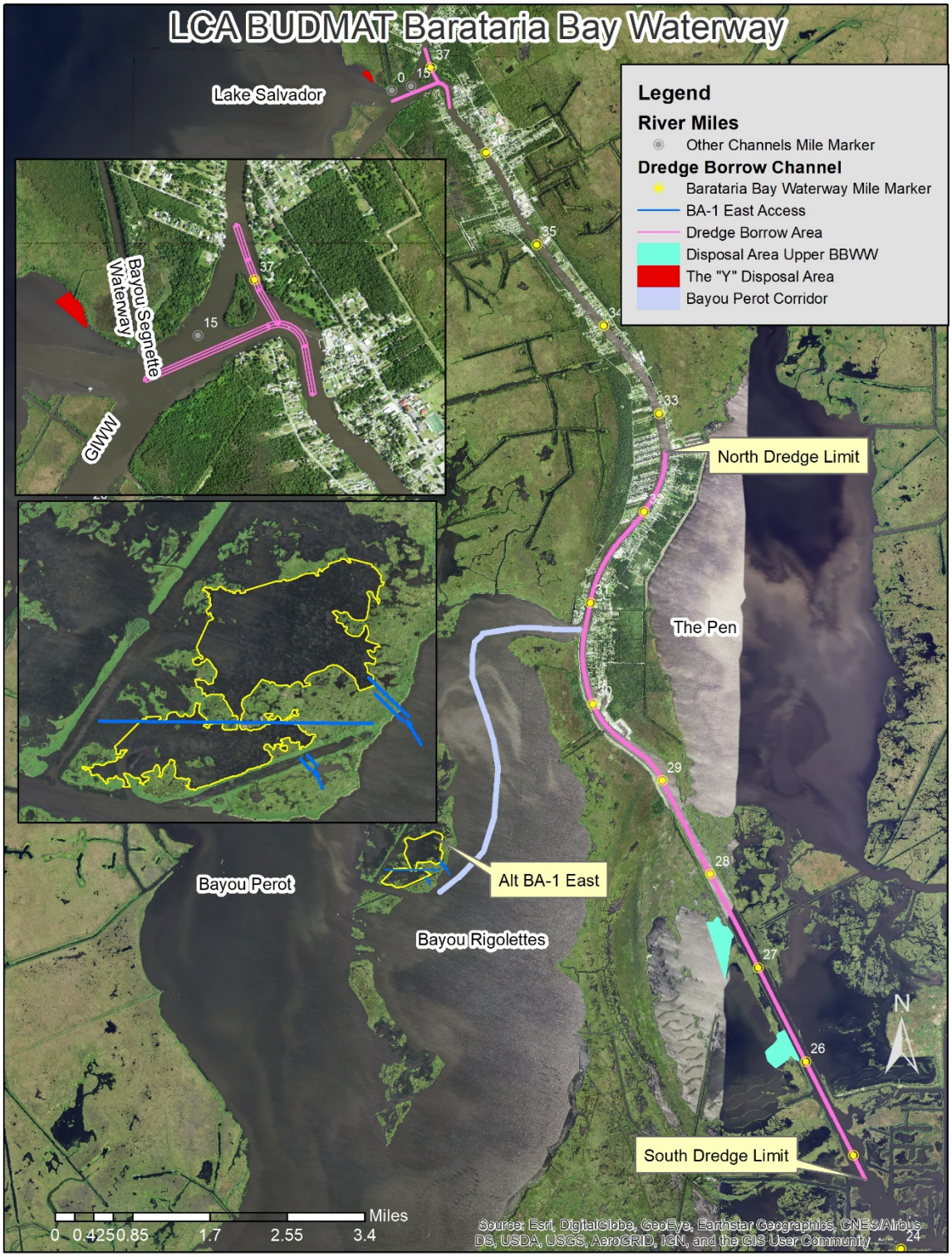
LCA BUDMAT Barataria Bay Waterway
Lake Salvador
Bayou Segnette Waterway
GIWW
Legend
River Miles
Other Channels Mile Marker
Dredge Borrow Channel
Barataria Bay Waterway Mile Marker
BA-1 East Access
Dredge Borrow Area
Disposal Area Upper BBWW
The "Y" Disposal Area
Bayou Perot Corridor
North Dredge Limit
The Pen
Alt BA-1 East
Bayou Perot
Bayou Rigolettes
South Dredge Limit
N
Miles
0 0.425 0.85 1.7 2.55 3.4
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3.

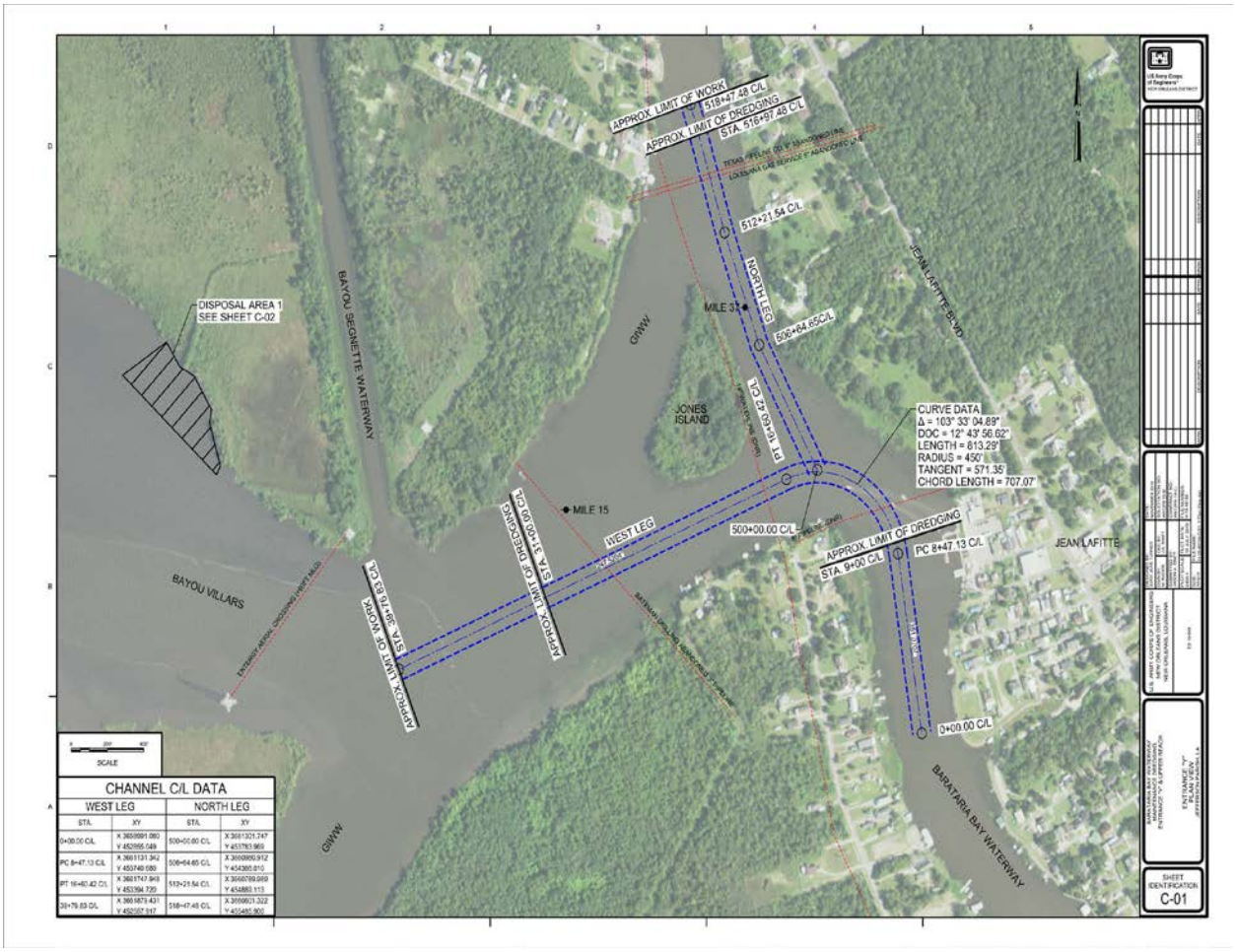
APPROX. LIMIT OF WORK
STA. 518+47.48 C/L
APPROX. LIMIT OF DREDGING
STA. 516+97.48 C/L
512+21.54 C/L
NORTH LEG
506+64.65C/L
DISPOSAL AREA 1
SEE SHEET C-02
BAYOU SEGNETTE WATERWAY
GIWW
MILE 32
JEAN LAFITTE BLVD
JONES ISLAND
CURVE DATA
Δ = 103° 33' 04.89"
DOC = 12° 43' 56.62"
LENGTH = 813.29'
RADIUS = 450'
TANGENT = 571.35'
CHORD LENGTH = 707.07'
MILE 15
WEST LEG
500+00.00 C/L
APPROX. LIMIT OF DREDGING
STA. 9+00 C/L
PC 8+47.13 C/L
JEAN LAFITTE
BAYOU VILLARS
APPROX. LIMIT OF WORK
STA. 9+76.83 C/L
APPROX. LIMIT OF DREDGING
STA. 11+00.00 C/L
0+00.00 C/L
BARATARIA BAY WATERWAY
GIWW
SCALE
CHANNEL C/L DATA
WEST LEG
NORTH LEG
STA.
XY
0+00.00 C/L
PC 8+47.13 C/L
PT 16+60.42 C/L
39+76.83 C/L
500+00.00 C/L
506+64.65 C/L
512+21.54 C/L
516+47.48 C/L
ENTRANCE "A"
ENTRANCE "B"
SHEET IDENTIFICATION
C-01

Figure 4.

	Preliminary[1]		Final[2]	
1. Review of Compliance (§230.10 (a)-(d)).				
A review of this project indicates that:				
a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);	YES	NO*	YES	NO
b. The activity does not appear to: (1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; (2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and (3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies);	FOR (1) ONLY YES	NO*	YES	NO
c. The activity will not cause or contribute to significant degradation of waters of the United States				

including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2);	YES	NO*	YES	NO
d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5).	YES	NO*	YES	NO

2. Technical Evaluation Factors (Subparts C-F).	N/A	Not Significant	Significant *
a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).			
(1) Substrate impacts.		x	
(2) Suspended particulates/turbidity impacts.		x	
(3) Water column impacts.		x	
(4) Alteration of current patterns and water circulation.		x	
(5) Alteration of normal water fluctuations/ hydroperiod.		x	
(6) Alteration of salinity gradients.		x	
b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).			
(1) Effect on threatened/endangered species and their habitat.			
(2) Effect on the aquatic food web.			
(3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).			
c. Special Aquatic Sites (Subpart E).			
(1) Sanctuaries and refuges.			
(2) Wetlands.			
(3) Mud flats.			
(4) Vegetated shallows.			

(5) Coral reefs.			
(6) Riffle and pool complexes.			

d. Human Use Characteristics (Subpart F).

(1) Effects on municipal and private water supplies.	x		
(2) Recreational and commercial fisheries impacts.			
(3) Effects on water-related recreation.			
(4) Esthetic impacts.			
(5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.			

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

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

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

(1) Physical characteristics	x
(2) Hydrography in relation to known or anticipated sources of contaminants	x
(3) Results from previous testing of the material or similar material in the vicinity of the project	x
(4) Known, significant sources of persistent pesticides from land runoff or percolation	x
(5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances	x
(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources	x
(7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	

(8) Other sources (specify) ..... _____

Appropriate references: See memorandum (Encl 2)

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

YES NO*

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

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

(1) Depth of water at disposal site x
(2) Current velocity, direction, and variability at disposal site x
(3) Degree of turbulence x
(4) Water column stratification x
(5) Discharge vessel speed and direction ..... _____
(6) Rate of discharge ..... _____
(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities) x
(8) Number of discharges per unit of time ..... _____
(9) Other factors affecting rates and patterns of mixing (specify) ..... _____

Appropriate references:

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

YES NO*

5. Actions to Minimize Adverse Effects (Subpart H).

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

YES NO*

6. Factual Determination (§230.11).

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

a. Physical substrate at the disposal site (review sections 2a, 3, 4, and 5 above).	YES	NO*
b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5).	YES	NO*
c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5)	YES	NO*
d. Contaminant availability (review sections 2a, 3, and 4).	YES	NO*
e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5).	YES	NO*
f. Disposal site (review sections 2, 4, and 5).	YES	NO*
g. Cumulative impact on the aquatic ecosystem.	YES	NO*
h. Secondary impacts on the aquatic ecosystem.	YES	NO*

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

[1]Negative responses to three or more of the compliance criteria at this stage indicates that the
proposed projects may not be evaluated using this "short form procedure". Care should be used in
assessing pertinent portions of the technical information of items 2a-d, before completing the final
review of compliance.
[2]Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.

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

7. Evaluation Responsibility.

a. This evaluation was prepared by:

Name: Whitney Hickerson
Position: Hydraulic Engineer
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: November 19, 2018

b. This evaluation was reviewed by:

Name: Eric Glisch
Position: Environmental Engineer
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: December 3, 2018

Name:
Position:
Organization:
Date:

8. Findings.

a. The proposed disposal site for discharge of dredged or fill material complies with the
Section 404(b)(1) guidelines
.....___

b. The proposed disposal site for discharge of dredged or fill material complies with the
Section 404(b)(1) guidelines with the inclusion of the following conditions
.....__

c. The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s):

(1) There is a less damaging practicable alternative
.....___
(2) The proposed discharge will result in significant degradation of the aquatic ecosystem
.....___
(3) The proposed discharge does not include all practicable and appropriate

measures to minimize potential harm to the aquatic ecosystem .....___

Date:_____

_____
Chief, Environmental Planning and Compliance Branch