

## SECTION 404(b)(1) EVALUATION

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

### Project Purpose

The CEMVN has proposed modifications to the Government approved action within the Individual Environmental Report (IER) 15, West Bank and Vicinity, Lake Cataouatche Levee, Jefferson Parish, Louisiana. For the proposed modifications (an oil/gas pipeline relocation and new access road near Lake Cataouatche Pump Stations 1 and 2; figure 1) within the IER 15 project area, the project description and associated maps are below.

### Project description

#### *Oil/Gas Pipeline Relocation*

The pipeline located in the 15a.2 reach currently is laid on the surface of the existing levee crown and slope (up and over configuration; figure 2). The Lake Cataouatche Levee is currently being raised and enlarged to meet the requirements of the Hurricane and Storm Damage Risk Reduction System (HSDRRS), and the pipeline in its current position would interfere with the approved levee construction on that levee segment.

The oil/gas pipeline would be permanently relocated approximately 170ft underground, under the levee, via direction drilling. This relocation method would require both truck and barge access to reach the temporary relocation work sites on either side of the Lake Cataouatche Levee (see figures 1 and 6).

The following project description starts in the most northern aspect of the project (at the Nicholle Blvd/access road intersection; (see figure 6) and ends at the very southern end of the project where the pipe would be back strung prior to drilling.

A permanent existing road (12ft wide and 5625ft long) north of the Lake Cataouatche Levee would be resurfaced with limestone to withstand heavy truck loads during construction (see figure 6). A temporary board road (16ft wide and 1601ft long) would be constructed at the end of the existing road to enable truck traffic to continue the rest of the way to reach the temporary relocation work site (see figure 6). There would be two small areas, "wings," temporarily cleared, grubbed and filled to provide adequate turn space for large trucks where the limestone access road meets the board road and again where the board road meets the work site (see figures 6 and 7). A temporary work site/staging area (200ft by 200ft drill pad and 20ft X 20ft drill pit) would be required and would require temporary clearing, grubbing, filling and stockpiling (see figure 7).

The area parallel to both sides of the segment of the pipeline to be relocated would require temporary clearing, grubbing, excavation and stockpile. The area parallel to the pipeline would be excavated to approximately 20ft-25ft wide and 7ft-8ft deep for most of the length of the pipeline except for certain areas, such as at the levee crossing and near specific work sites (see figure 7). There would be no excavation where the pipeline currently crosses the levee, and there would be more excavation in those places where placement of the new pipeline would require a greater excavated work site. The width of the temporary excavation parallel to the pipeline would range from 20ft in most places to 70ft in some places depending on the required activity (see figure 7). The width of the adjacent temporary stockpile sites would range from 60ft to 130ft as necessary (see figure 8). Note: these are worst case excavation and stockpile estimates. Best management practices would be used to minimize impacts to the most extant practicable throughout construction.

Temporary excavation and dredging would also be required in the Outer Cataouatche Canal. A 20ft by 365ft area would be excavated on both sides of the pipeline, as the pipeline crosses the open water bottom of the canal (see figure 7). Dredging would be required in the Outer Cataouatche Canal to provide barge access to the work site south of the Lake Cataouatche Levee. An approximate 70ft wide and 3620ft long access route would be cleared in the Outer Cataouatche Canal to allow for the barge draft (see figure 6). Wheelwashing, in which a tugboat would clear bottom sediment using propeller thrust, would be used first in attempt to merely spread the sediment without actually dredging. In the event wheelwashing is not effective, bottom sediment would be dredged and placed adjacent the entire length of the required dredged area. The material would be temporarily stockpiled to a height of approximately 1.5ft in a stockpile site adjacent to the dredged area (see figure 6).

A flotation channel (approximately 40ft wide and 1350ft long) running parallel with the pipeline would be required for the barge to reach the temporary work site (200ft by 200ft drill pad and 20ft X 20ft drill pit) south of the Lake Cataouatche Levee (see figure 7). Material would be temporarily excavated and placed in approximately 35-60ft wide temporary disposal sites on either side of the newly created flotation channel (see figure 7). Material would be stockpiled in a scattered pattern across the stockpile site as to prevent permanent adverse impacts to the marsh on which it would be stacked. An area further south than the temporary work site and flotation channel would also require temporary excavation (14ft wide by 3035ft long) and adjacent stockpiling (approximately 38ft-60ft wide by 3035ft long) to accommodate the drill string before the drilling begins (see figure 7).

Upon completion of all pipeline relocation work efforts north and south of the Lake Cataouatche Levee, all dredged and excavated material would be backfilled to its original location to the most extant practicable in an effort to restore the disturbed area to its original state.

#### *New Access Road and Pontoon Bridges*

The proposed action is construction of a temporary access road for use in transporting construction equipment and materials to WBV15a.2 (figure 3 and 4). The primary use of the temporary road would be for hauling fill material from Churchill Farms borrow site to the project site which would allow a substantial decrease in haul distance, minimization of fuel consumption, minimization of road maintenance, etc. The temporary access road would be approximately 800 ft long and 40 ft wide and require two temporary canal crossings. The Avondale Canal crossing would consist of an approximately 40ft wide by 110ft long pontoon bridge, and the Cataouache Canal crossing would consist of an approximately 40ft wide by 110ft long pontoon bridge. There are sections of the proposed temporary road alignment that are currently cleared; however, the remaining section of the road alignment must be cleared and grubbed.

A small temporary staging area would also be required for access road construction. The staging area would be used as a working area (equipment staging) to construct the crossing. Additionally, the staging area would be used for storage (equipment, etc.) for the crossing construction. See attached plan (figure 3) for dimensions. Contractor shall dispose of cleared and grubbed organics offsite to an approved site in accordance with the governing jurisdiction.

The access road and staging area would impact approximately 0.29 acres.

Table 1. IERS 15.a Proposed Impacts			
Impacts Associated with Pipeline Relocation Activities	Acres	Cubic Yards earthen material	Cubic Yards limestone
Access road to pipeline area	N/A	N/A	800
Area north of Lake Cataouatche Levee to be temporarily excavated (area parallel to pipeline)	2	13,482	N/A
Area north of Lake Cataouatche Levee to be temporarily cleared, grubbed and stockpiled (all actions including board road, work site/drill pad, drill pit)	6	N/A	N/A
Canal Crossing temporary excavation and adjacent stockpile	0.4	4,326	N/A
Temporary Access channel wheelwash/dredging	5.8	14,077	N/A
Temporary Access wheelwash/dredging stockpile	6.7	N/A	N/A
Area south of Lake Cataouatche Levee to be temporarily excavated in the National Park (flotation channel, area parallel to pipeline, backstring area)	3.5	41,615	N/A
Area south of Lake Cataouatche Levee to be used for stockpile in the National Park (includes work site/drill pad)	11	N/A	N/A
Access road near Lake Cataouatche PS	0.29	N/A	N/A
Total	35.7	73,500	800

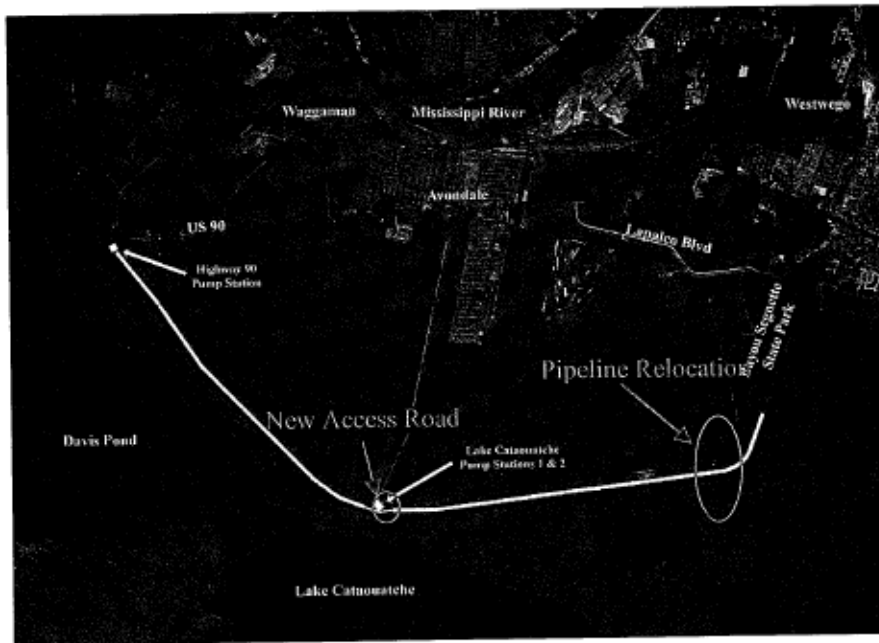


Figure 1. IER 15 Lake Cataouatche Levee Project Area.



Figure 2. Facing west –Lake Cataouatche Levee with the Outer Cataouatche Canal on the flood side (to the left). The existing pipeline is going up and over the existing, non-upgraded levee.

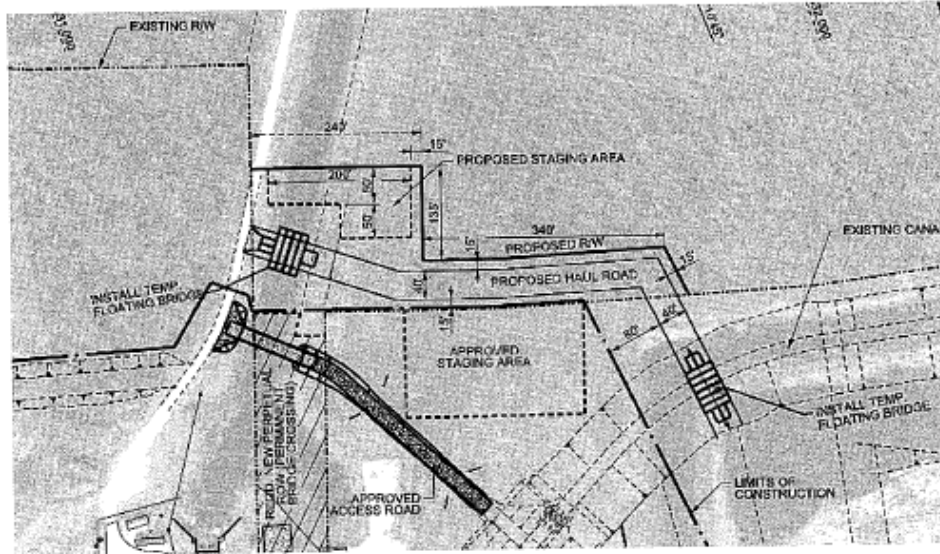


Figure 3. Proposed access road, staging area and pontoon bridges near the Lake Cataouatche Pump Stations 1 and 2.



Figure 4. Proposed temporary access road for WVB 15a.2 (aerial photo).



Figure 5

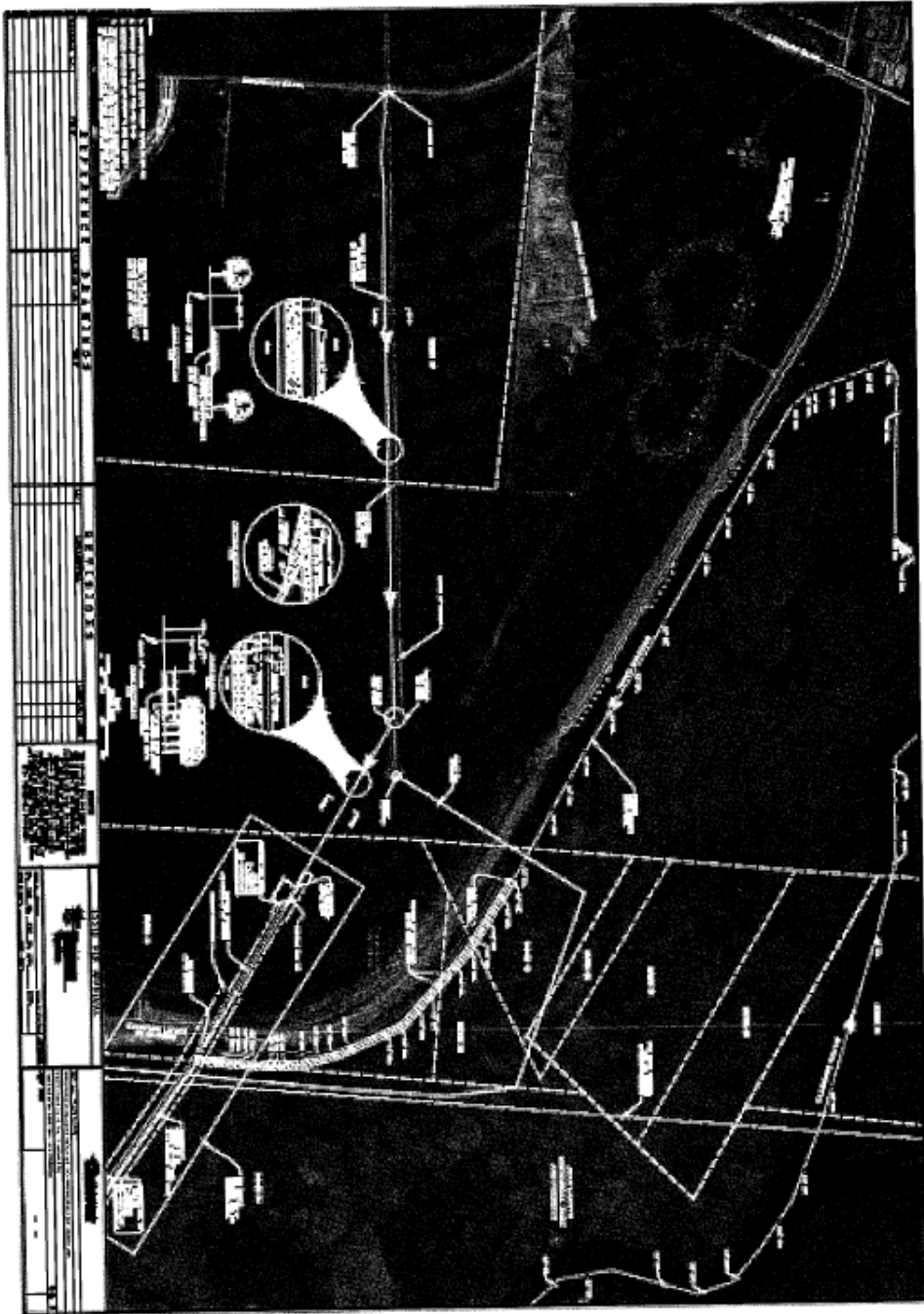


Figure 6

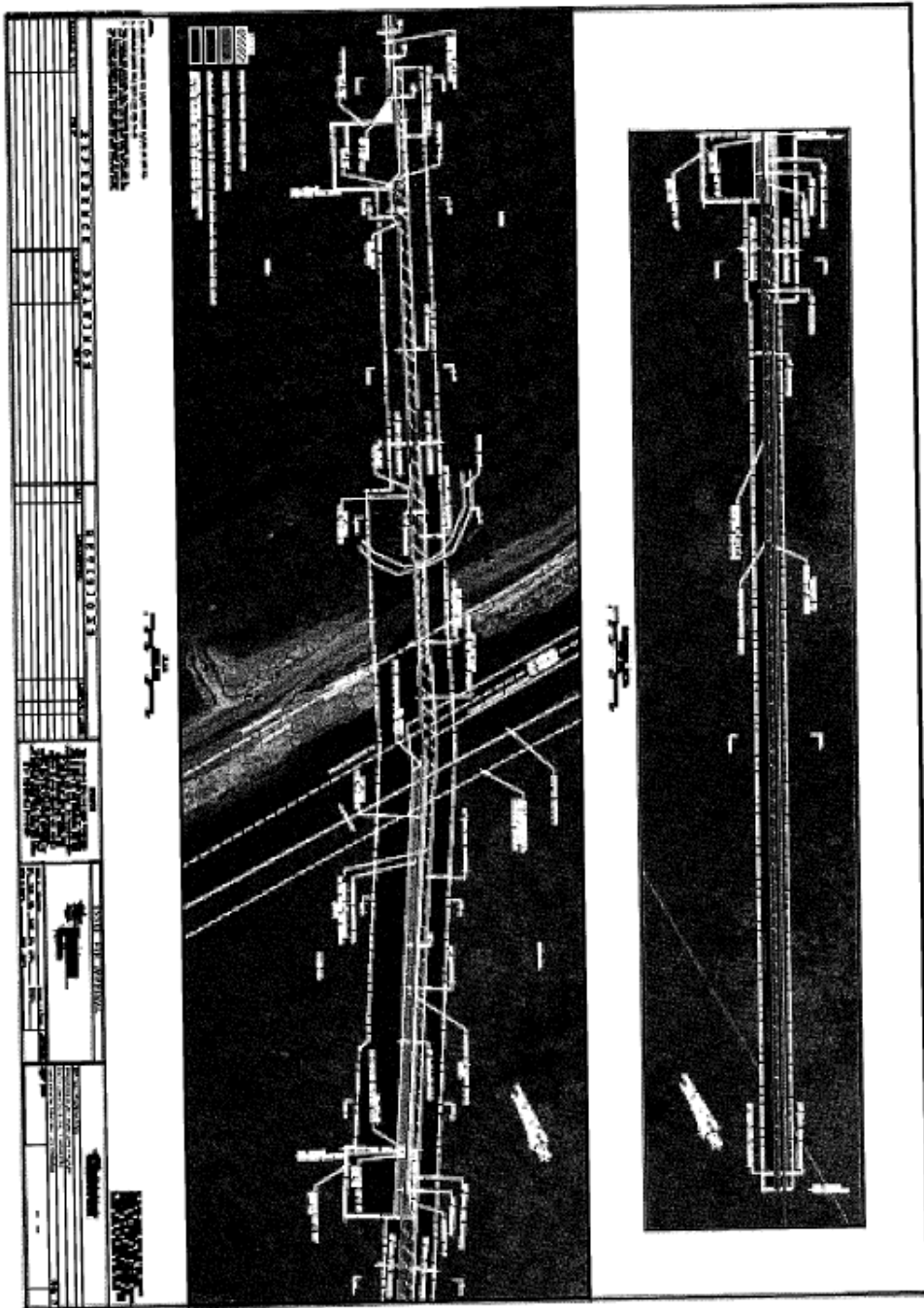


Figure 7



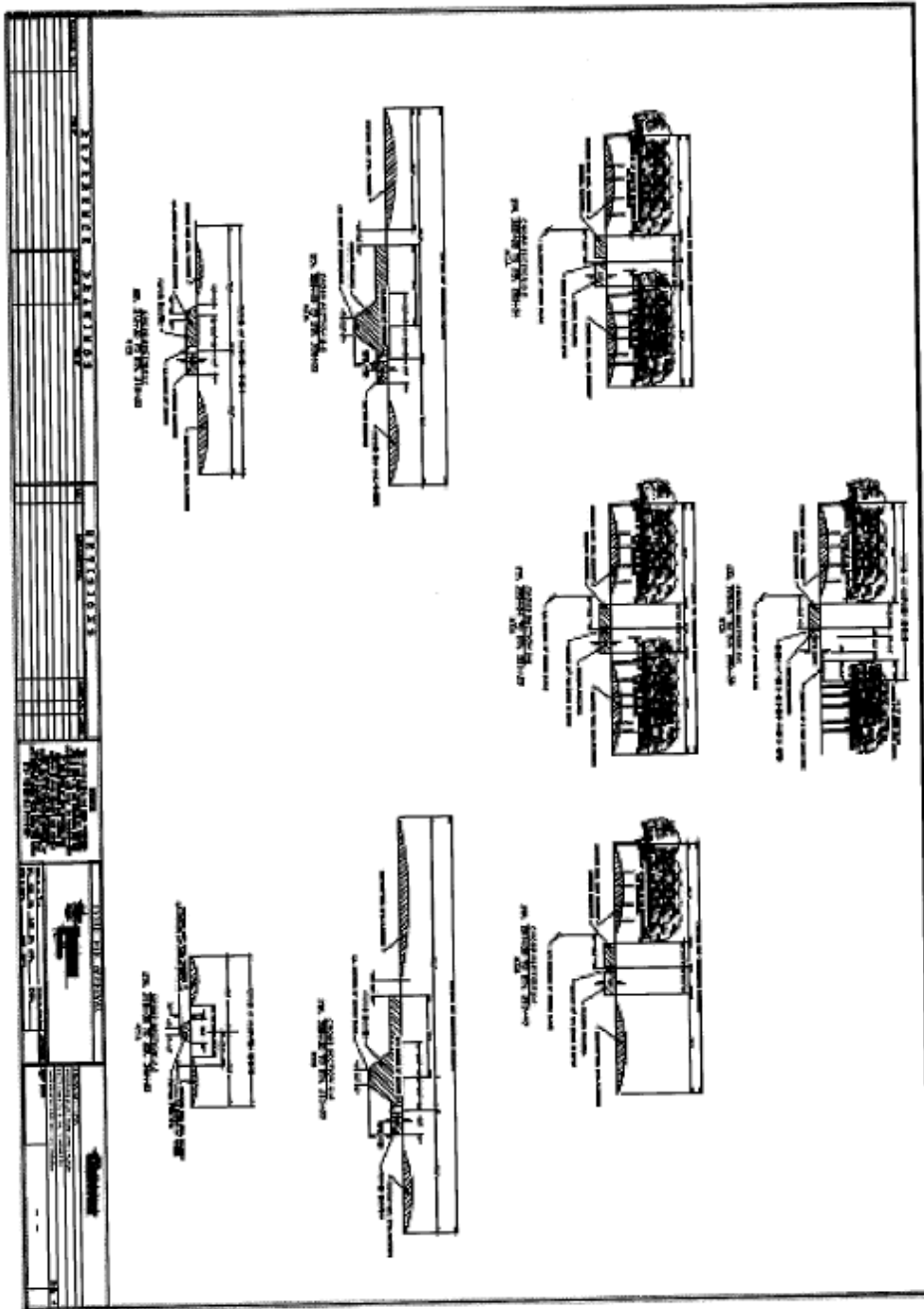


Figure 8

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

Preliminary<sup>1</sup>

Final<sup>2</sup>

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.
- (2) Suspended particulates/turbidity impacts.
- (3) Water column impacts.
- (4) Alteration of current patterns and water circulation.
- (5) Alteration of normal water fluctuations/hydroperiod.
- (6) Alteration of salinity gradients.

		x
	x	
	x	
x		
x		
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).

x		
x		
	x	

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.

x		
		x
x		
x		
x		
x		

d. Human Use Characteristics (Subpart F).

- (1) Effects on municipal and private water supplies.
- (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.

x		
	x	
	x	
	x	
	x	

Remarks: Where a check is placed under the significant category, the preparer has attached comments below.

2.a.(1) – Substrate impacts – Since the pipeline excavation trenches north of the Cataouache canal and the flotation access channel south of it will be backfilled with the original material, no significant long term substrate impacts would occur. Substrate impacts cause by wheelwashing or dredging in those sections of the outer Cataouache canal where needed will only be temporary, and the turbidity or water column

impacts would be temporary as well.

2.c.(2)-Wetlands – Though the oil/gas pipeline relocation would impact approximately 8 acres of intermittently drained, forested wetlands habitat on the protected side, north of the Lake Cataouatche levee and approximately 14.5 acres of high quality wetlands south of the Lake Cataouatche levee within the Jean Lafitte National Historical Park and Preserve, impacts would be temporary. The construction site within the National Park would be restored to prior to construction conditions immediately following construction, and all impacts that would occur within the National Park would be mitigated within Park lands.

3. Evaluation of Dredged or Fill Material (Subpart G).<sup>3</sup>

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

(1) Physical characteristics .....	<u>    x    </u>
(2) Hydrography in relation to known or anticipated sources of contaminants .....	<u>    x    </u>
(3) Results from previous testing of the material or similar material in the vicinity of the project .....	<u>    x    </u>
(4) Known, significant sources of persistent pesticides from land runoff or percolation .....	<u>          </u>
(5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances .....	<u>    x    </u>
(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources .....	<u>    x    </u>
(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 .....	<u>          </u>
(8) Other sources. See references below.....	<u>    x    </u>

Appropriate references:

- a. U.S. Army Corps of Engineers, (USACE), IER (Intermediate Environmental Report)16, May 2008
- b. Aerostart Environmental Services. Draft – Phase I Environmental Site Assessment: IER 16. Waggaman, St. Charles and Jefferson Parish, Louisiana. Prepared for USACE. 15 October 2008.
- c. U.S. Army Corps of Engineers, (USACE), IER 15, January 2008
- d. EnviroMapper StoreFront. 2009. US EPA 11 January 2011.  
<<http://www.epa.gov/enviro/html/em/index.html>>
- e. National Response Center. 2009. US Coast Guard. 12 January 2011  
<<http://www.nrc.uscg.mil/index.htm>>
- f. NOAA, Screening Quick Reference Tables, November 2006-<[http://response.restoration.noaa.gov/type\\_topic\\_entry.php?RECORD\\_KEY%28entry\\_t](http://response.restoration.noaa.gov/type_topic_entry.php?RECORD_KEY%28entry_t)

opic\_type%29=entry\_id,topic\_id,type\_id&entry\_id(entry\_topic\_type)=90&topic\_id(entry\_topi  
c\_type)=2&type\_id(entry\_topic\_type)=2US EPA>

g. Superfund Database of Hazardous Waste Sites. 2009. US EPA. 11 January 2011.

<<http://www.epa.gov/superfund/sites/cursites/index.htm>>

h. Water Quality Monitoring Sites, February 2009. Louisiana Department of Environmental Quality. 11 January 2011 <http://www.deq.louisiana.gov/portal/tabid/2742/Default.aspx>>

i. US EPA, Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, July 2004: <http://www.epa.gov/owow/wetlands/pdf/40cfrPart230.pdf>

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

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*
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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). | <input type="checkbox"/> YES | NO* |
| b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5).   | <input type="checkbox"/> YES | NO* |
| c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5)               | <input type="checkbox"/> YES | NO* |
| d. Contaminant availability (review sections 2a, 3, and 4).                         | <input type="checkbox"/> YES | NO* |
| e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5).   | <input type="checkbox"/> YES | NO* |
| f. Disposal site (review sections 2, 4, and 5).                                     | <input type="checkbox"/> YES | NO* |
| g. Cumulative impact on the aquatic ecosystem.                                      | <input type="checkbox"/> YES | NO* |
| h. Secondary impacts on the aquatic ecosystem.                                      | <input type="checkbox"/> YES | NO* |

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

<sup>1</sup>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.

<sup>2</sup>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.

<sup>3</sup>If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility.

a. Water Quality input provided by: Stephen T. Servay

Position: Chemist

Date: 14 April 2011

b. This evaluation was reviewed by: Rodney F. Mach

Position: Supervisory Hydraulic Engineer, HN

Date: 14 April 2011

8. Findings

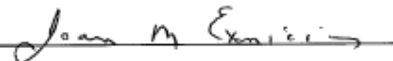
a. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines ..... X\_

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

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

- (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: 4-21-11

  
Chief, Environmental and Compliance Branch