

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 evaluation, but involving no significant adverse impacts.

PROJECT TITLE. LPV, West Return Floodwall Jefferson, Jefferson and St. Charles Parishes, Louisiana (Individual Environmental Report #2).

PROJECT DESCRIPTION. The proposed action consists of a project to replace 17,900 feet (ft) (3.4 miles) of floodwalls located on the border between Jefferson and St. Charles Parishes, LA. For the purposes of the IERs, the area of Lake Pontchartrain and Vicinity (LPV) has been divided into numerous reaches. Each reach is identified by a project identification number (e.g., LPV 03). The project would replace the floodwalls and I-wall associated with reaches LPV 03a, 03c, and 13 of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (GNOHSDRRS). The proposed action is described by LPV reach below.

The proposed action (preferred alternative) for LPV 03a and 03c (West Return Floodwall) would consist of replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west, along the east embankment of the Parish Line Canal. The new T-wall would be constructed to an elevation of 17.5 ft North American Vertical Datum of 1988 (NAVD88) north of Interstate 10 (I-10) and 16.5 ft NAVD88 south of I-10. Flood-side and protected-side berms would be incorporated into the construction design. The berms would be at an elevation of 4.5 ft from the airport to I-10 and at an elevation of 2.5 ft from I-10 to the lake front. In addition, the Parish Line Canal pumping station discharge would be incorporated into the new T-wall with no additional fronting protection. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area regraded. Armoring with rock would be incorporated to protect against erosion and scour on the flood side of the floodwall berm. Under the I-10 bridge, the new T-wall elevation would be approximately 13.5 ft NAVD88. On the north side of the I-10 bridge (LPV 03c), a rock breakwater would be constructed on a geotextile fabric in the canal. The breakwater would be at an elevation of approximately 19.5 ft NAVD88 with a width of approximately 105 ft and a length of approximately 500 ft. Totals of approximately 16 acres of open water and 17 acres of brackish marsh wetland would be permanently filled by the proposed action at these LPV reaches.

The proposed action (preferred alternative) for LPV 13 (Recurve I-Wall Northwest of Kenner) is a continuation of the proposed action for LPV 03a. This action would include replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west, between the existing floodwall and the shoreline of Lake Pontchartrain near the mouth of the Parish Line Canal. The new T-wall would be constructed to an elevation of 17.5 ft NAVD88. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area regraded. No wetland or open water areas would be permanently filled by the proposed action in this LPV reach. The existing gate closure at LPV 13 would be replaced with a new gate closure. The gate would consist of a new swing gate closure structure with a clear opening of 20 ft NAVD88. The sill elevation would be at 10 ft NAVD88 and the top of the gate would be at 17.5 ft NAVD88.

As an additional feature of the floodwalls, armoring may be incorporated to protect against erosion and scour on the protected and/or flood sides of critical portions of levees and floodwalls. These critical areas include: transition points (where levees and floodwalls transition into any hardened feature such as other levees, floodwalls, pump stations, etc.), utility pipeline crossings, floodwall protected side slopes, and earthen levees that are exposed to wave and surge overtopping during a 500-year hurricane storm event. The proposed method of armoring could be one of the following: articulated concrete blocks (ACB) covered with soil and grass; turf reinforcement mattress (TRM); ACB/TRM; TRM/grass; or good grass cover. The armoring would be incorporated into the existing levee or floodwall footprint, and no additional environmental impacts would be anticipated.

Construction of the proposed action could begin in mid-2008, and the construction activities are expected to last for approximately 2 to 2.5 years. A significant amount of construction equipment would be required to conduct the work, including, but not limited to, generators, barges, boats, cranes, trucks, bulldozers, excavators, pile hammers, graders, tractors, and front-end loaders. Truck access to the project site would be via I-10 to Loyola Drive to either Veterans Memorial Blvd., West Esplanade Ave., or Vintage Dr.

Barges also would be used during construction and would access the project area via Lake Pontchartrain to the Parish Line Canal. Barge access to the lakefront and to Parish Line Canal from Lake Pontchartrain likely would require dredging. The dimensions required for a tug boat and barge to access these areas would be approximately -10 ft NAVD88 deep and 100 ft wide. An access channel would be dredged perpendicularly to the lakeshore from Lake Pontchartrain to the Parish Line Canal, starting at 1,200 ft in the lake and extending into the mouth of the canal. Another segment of the Parish Line Canal that would be dredged for access extends about 4,000 feet north from the I-10 bridge. Dredging of the access channels and the stockpiling of the dredged sediment would temporarily impact approximately 59 acres of lake and canal bottom and associated water column. Dredged material would be stockpiled adjacent to the access channels and returned to the channels as backfill to restore the bottom elevations of the lake and canal after the completion of construction.

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

Preliminary¹

Final²

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);

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
- (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, 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	<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> X </u>
(8) Other sources – See references below	<u> X </u>

Appropriate references:

1. Environmental Regulatory Code, Part IX. Water Quality, Louisiana Department of Environmental Quality, 2007.
2. State of Louisiana Water Quality Management Plan, Volume 5, Water Quality Inventory Integrated Report, Louisiana Department of Environmental Quality, 2004.
3. US Army Corps of Engineers. March, 2008. Preliminary Draft Environmental Report LPV, West Return Floodwall Jefferson, Jefferson and St. Charles Parishes, Louisiana, IER #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	<u> X </u>
(2) Current velocity, direction, and variability at disposal site	<u> X </u>
(3) Degree of turbulence	<u> X </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>

Appropriate references:

Same as 3(a)

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*

Actions taken:

The project footprint was selected to minimize wetland impacts.
 Access channels will be backfilled after construction is complete.
 Silt curtains will be utilized.
 Construction staging areas and channel access would be located in areas that minimize impacts to sensitive habitats.
 All fill material will be certified by physical testing, chemical analysis, and/or manufacturer's certification. It will be free from contamination before use in this project. Potential fill sources are being evaluated in other separate borrow IERs.

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 (adverse) 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 proposed project may not be in compliance with the Section 404(b)(1) Guidelines.

¹Negative responses to three or more of the compliance criteria at this stage indicates that the proposed project 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.

²Negative 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.

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

7. Evaluation Responsibility.

Evaluation prepared by:

Position: Elizabeth Behrens, Biologist, CEMVN

Date: 24 April 2008

Evaluation reviewed by:

Position: Rodney Mach, Environmental Engineer, CEMVN

Date: 24 April 2008

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

Chief, Environmental Planning
and Compliance Branch