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, (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 significant adverse impacts.

PROJECT TITLE: Supplemental IER #12/13 Waterline (IERS #12/13)

PROJECT DESCRIPTION.

As part of the Gulf Intracoastal Waterway (GIWW), Harvey, and Algiers Levees and Floodwalls Jefferson, Orleans and Plaquemines Parishes, Louisiana West Closure Complex, WBV- 90, the Corps of Engineers proposes to construct a 12" diameter waterline from near Highway (Hwy) 23 to the project site as shown below in Figures 5 and 6. Total length of the pipeline would be slightly longer than 3 miles. The proposed waterline alignment would run through areas covered in both IERs #12 and #13, hence the supplement to both documents. The waterline would tie into the Plaquemines Parish 16" waterline that parallels the west side of Highway 23 at Bergeron Dr via a Plaquemines Parish Government (PPG) installed stub-out. The waterline would provide the water necessary for operating and maintaining the WCC as well as for supplying water for extinguishing fires near the WCC should they occur. It is the intent of this project to provide fire hydrants in the area of the project to facilitate firefighting of the immediate area surrounding the WCC. Upon completion of the construction, the waterline would be turned over to the Local Sponsor for potential incorporation into the PPG municipal water system.

The proposed action consists of an addition to the original actions described in IERs #12 and #13. The addition includes placing a 12'' diameter waterline from Hwy 23 to the WCC to provide the water necessary for operating and maintaining the WCC as well as for supplying water for extinguishing fires near the WCC should they occur. The proposed action is being broken into two sections within this document. Section 1 is the portion that runs from Hwy 23 down Bergeron Drive (Dr) across a drainage ditch at the end of Bergeron Dr down an existing PPG drainage easement and finally crossing the drainage canal (WPA Canal) at Landfill Street (St) to Walker Road (Rd) (Figure 5). Construction/installation of Section 1 would take place entirely within the existing PPG drainage easement. Section 2 is the portion that runs across and down Walker Rd. to the WCC (Figure 6). Section 2 construction/installation would take place within the existing Walker Rd right of way (ROW) and within the existing WCC ROW.

A trench would be excavated of adequate depth and width to safely install the waterline. Excavation would normally be between 3' and 6' deep and up to 20' wide at the top. The most likely excavation would be 4' deep by 2' wide.

The new waterline would be 12" diameter polyvinyl chloride (PVC) or high density polyethylene (HDPE) pipe installed within the trench in accordance with the Corps of Engineers (COE) technical specifications. Crossings over canals and under roadways would be accomplished using industry accepted methods for crossings in accordance with COE technical specifications. All taps, hydrants, and valves would be installed in accordance with the COE technical specifications. Above ground crossings would be accomplished with ductile iron or other suitable material.

Upon completion of the pipeline placement operation, the trench would be backfilled with material in accordance with the COE technical specifications, Excavated material would be

returned to the trench from which it was removed and compacted according to COE technical specifications.

Upon completion of the trench backfill operations, the site would be restored to the original grades with an adjustment for settlement. Non-wetland Impacted areas within the construction ROW would be allowed to naturally re-vegetate to pre-construction conditions. Driveways and other relocated elements would be replaced by others. Areas in front of residential homes disturbed by construction activities would be seeded or sod placed to re-establish turf.

Figure 1. IERS 12/13 Waterline Alignment

Existing Conditions:

Section 1***:***
The portion of the existing PPG drainage easement that the proposed action falls within is approximately 15 acres. Along Bergeron Dr the habitat that would be impacted consists of the previously disturbed roadway and lawns including mowed grass and some large oak trees (Figure 2).

At the end of Bergeron Dr the PPG easement enters a forested area with a drainage canal (WPA Canal). The forested area consists of species such as willow, Chinese tallow, various pines, oaks and gum (Figure 3). The WPA Canal sustains some wetland species such as cattail and alligator weed (Figure 4).

Figure 2: Photo of Bergeron Drive and PPG 60 foot easement

Figure 3: Photo of WPA Canal and PPG 100 foot Easement

Figure 4: Photo of WPA Canal and Fringe Wetland

Section 2***:***

Once across Walker Rd the proposed action would take place within the Walker Rd ROW and would comprise approximately 33 acres. This ROW consists of the previously impacted Walker Rd, grasses on the north side of the road and such species as willow, Chinese tallow and elderberry along the south side of the road (Figure 5). At the end of Walker Rd. the proposed action would enter the existing ROW of the WCC which has been previously impacted and documented in IER #12.

Figure 5: Photo of Walker Road and the vegetated border

Impacts:

Less than half of an acre of the previously disturbed habitat along Bergeron Dr. would be impacted. All large trees would be avoided. Less than half an acre (approximately 14,900 ft²) of bottomland hardwood habitat and 600 ft² of fringe wetland habitat would be impacted by the proposed action. The WPA Canal would be avoided until the waterline crosses it at the intersection of Walker Rd and Landfill St. where approximately 1,200 ft² of open water would be impacted.

Table 1: Total Impacts by Habitat Type

Habitat Type	Approx Feet²
Previously Disturbed Habitat	9,725
Bottomland Hardwoods	14,900
Open Water	1,200
Wetlands	600

1. Review of Compliance (§230.10 (a)-(d)). Preliminary[1] Final[2]

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.	x		
(2) Effect on the aquatic food web.		x	
(3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).		x	

c. Special Aquatic Sites (Subpart E).

(1) Sanctuaries and refuges.	x		
(2) Wetlands.	x		
(3) Mud flats.	x		
(4) Vegetated shallows.	x		
(5) Coral reefs.	x		
(6) Riffle and pool complexes.	x		

d. Human Use Characteristics (Subpart F).

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

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	
(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. See references below.....	

Appropriate references:

a. United States Army Corps of Engineers (USACE) 2009a. *Final Phase II ESA Report, Limited Phase II ESA and Additional Sampling, Proposed Dredge Areas – Algiers Canal, Jefferson and Plaquemines Parishes, Louisiana*. http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.

b. USACE 2009b. *Individual Environmental Report, GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana, IER #12*. http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.

c. United States Army Corps of Engineers (USACE) 2008a. *Limited Phase II Environmental Assessment (Soil Sampling), Potential Sector Gate Locations, Algiers and Hero Canals, Jefferson and Plaquemines Parishes, Louisiana*. http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.

d. USACE 2008b. *Final Phase I Environmental Site Assessment, IER 13, Walker Road and Highway 23, Oakville, Plaquemines Parishes, Louisiana*. http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.

e. USACE 2006a. *Final Site Activities and Soil Classification Report, Phase II Environmental Site Assessment, Oakville Levee Extension, Plaquemines Parishes, Louisiana*. http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.

f. USACE 2006b. *Phase I Environmental Site Assessment Report, West Bank Hurricane Protection Project – East of Harvey Canal, Plaquemines Parishes, Louisiana*. http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.

g. 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*

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)	

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

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:	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*

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. Water Quality input provided by: Stephen T. Servay

Position: Chemist

Date: 10 September 2010

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

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Position: Supervisory Hydraulic Engineer, HN

Date: 15 September 2010

c. Biological input provided by: Tammy Gilmore

Position: Biologist

Date: 20 October 2010

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, New Orleans Environmental Branch