Environmental Protection Agency Region 6 Recommended Determination on a Request by the U.S. Army Corps of Engineers to Modify the Bayou aux Carpes Clean Water Act Section 404(c) Designation

April 2009

EPA, 2008

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Part I

EPA Region 6 Recommended Determination

Introduction

On November 4, 2008, the New Orleans District of the U.S. Army Corps of Engineers (Corps) requested that the Environmental Protection Agency (EPA) modify the Bayou aux Carpes Clean Water Act (CWA) Section 404(c) designation to accommodate discharges to the Bayou aux Carpes wetlands associated with proposed post-Katrina upgrades to the West Bank and Vicinity Hurricane Protection Levee system in Jefferson Parish, Louisiana.

Statutory Authority and Administrative Procedures

Section 404(c) of the CWA, 33 U.S.C. § 1344(c), authorizes EPA to restrict or prohibit the use of a wetland area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

The regulations establishing procedures to be used by EPA in applying this provision are found at 44 FR Part 231. These procedures were employed by EPA in 1984 and 1985 when the existing CWA Section 404(c) designation was made. Key milestones during that process included a hearing and opportunity for the public to provide written comments, a recommended determination proposed by EPA Region 6, and a final determination issued by EPA headquarters and noticed in the *Federal Register*. EPA is proceeding with this modification review via a similar process. A notice was published in the *Federal Register* on January 14, 2009 (Part I, Appendix A), and a public hearing was held in New Orleans on February 11, 2009. Public comments were accepted through February 23, 2009. This recommended determination, issued by EPA Region 6, will be followed by a final determination and Federal Register notice, issued by the EPA headquarters Office of Water.

The overall Corps project to provide 100-year protection to south Louisiana is known as the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (GNOHSDRRS). That project involves two large levee systems, the West Bank and Vicinity Hurricane Protection Project and the Lake Pontchartrain and Vicinity Hurricane Protection Project, and approximately 350 miles of earthen levees and floodwalls throughout five parishes in the New Orleans metropolitan area. Within the West Bank and Vicinity Hurricane Protection Project, the Corps has divided the study areas into six components and will report on plans for each of those areas in Individual Environmental Reports (IERs). The proposed plans for the Bayou aux Carpes CWA Section 404(c) area are reported in Draft IER # 12 (USACE, 2009).

Draft IER # 12 has been prepared by the Corps in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) Regulations (40 CFR §1500-1508). In an agreement with the CEQ, the Corps is

employing alternative NEPA arrangements (40 CFR §1506.11) in order to expedite the review and design process.

The Department of Defense Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico and Pandemic Influenza Act of 2006 (3rd Supplemental - P.L. 109-148, Chapter 3, Construction, and Flood Control and Coastal Emergencies) authorized accelerated completion of the Corps project, as well as restoration of project features to design elevations at 100 percent federal cost. The Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006 (4th Supplemental - P.L. 109-234, Title II, Chapter 3, Construction, and Flood Control and Coastal Emergencies) authorized construction of a 100-year level of risk reduction; the replacement or reinforcement of floodwalls; and the construction of levee armoring at critical locations. Additional Supplemental Appropriations include the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (5th Supplemental - P.L. 110-28, Title IV, Chapter 3, Flood Control and Coastal Emergencies, Section 4302) and the 6th Supplemental (P.L. 110-252, Title III, Chapter 3).

Bayou aux Carpes CWA Section 404(c) Designation

EPA published a CWA Section 404(c) Final Determination prohibiting, with three exceptions, future discharges of dredged or fill material to wetlands into the Bayou aux Carpes site at 50 Fed. Reg. 47267 (November 15, 1985). The Corps proposal for providing increased hurricane and storm damage risk reduction for this area does not fall within one of the three exceptions.

The first exception is for discharges associated with the completion of the Corps' modified design for the Harvey Canal – Bayou Barataria Levee Project. The second exception is for discharges associated with routine operation and maintenance of the Southern Natural Gas Pipeline. The third exception covers discharges associated with EPA approved habitat enhancement activities.

The modified Harvey Canal – Bayou Barataria Levee Project dates back to the 1970's. The project was never completed and there is no longer any interest in pursuing it. Therefore, the first exception has never been utilized. The second exception was the subject of a modification request two decades later by a company other than the one specified originally, as described in the paragraph below. The third exception has only now come into play in conjunction with the Corps' current modification request. A complete explanation of this situation is discussed below.

After completion of the Final Determination, several requests for modifications were reviewed by EPA. Shell Pipeline Corporation was granted an emergency exception in 1992 to bury an existing pipeline deeper via horizontal drilling techniques as a response to unstable soil conditions and a leaking pipeline (57 Fed. Reg. 3757). This was approved on the basis that relocating the pipeline to non-wetlands was infeasible from the perspectives of engineering alternatives and public safety, the work would have only minimal and temporary impacts on the wetlands, and the work was essentially the same as that envisioned under the second exception. The Corps also requested an exception in 1988 to allow construction of the West Bank Hurricane Protection Levee such that the toe of the V-shaped levee would extend into the protected area. That request was

based only on potential cost savings, did not fall within the bounds of the exceptions set out in the 404(c) Final Determination, and was therefore considered to be a restricted action. In response, the Corps modified the levee alignment and constructed the levee without discharges into the Bayou aux Carpes CWA Section 404(c) site.

The 1985 EPA CWA Section 404(c) action was based upon a thorough record of investigations, including field surveys, remote sensing, and other technical analyses conducted by three EPA facilities, the U.S. Fish and Wildlife Service (USFWS), the National Park Service (NPS), and the Louisiana State University (LSU) Center for Wetland Resources. These study reports and additional documentation supporting the designation may be found at:

http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/BayouAuxCarpes404c1985RecDeterm.pdf.

Summary of Other Major Federal Projects Effecting the Bayou aux Carpes Site

As summarized below, EPA has taken a number of administrative actions over the years, all intended to protect the Bayou aux Carpes wetlands. Several of those actions have resulted in protracted litigation, leading District Court Judge Lansing Mitchell to note "this court takes up this decision not unlike Sisyphus, once more shall we attempt to dispose of this rocky case."

In the 1970's, Jefferson Parish applied to the U.S. Department of Housing and Urban Development for funding to construct a waterline from Marrero to Lafitte, Louisiana. As originally proposed, the waterline would have supported development in the Bayou aux Carpes wetlands and EPA Region 6 pursued objections through the NEPA review process. The matter was resolved through a 1979 Memorandum of Agreement (MOA) between EPA Region 6 and Jefferson Parish that established the Bayou aux Carpes area as part of a "prohibited service area." The MOA was appended as a condition to the Corps CWA Section 404 permit for the waterline. Though EPA Region 6 has evaluated several requests to modify that agreement, the last in 2002, no changes have been made to the original agreement and much of the area incorporated in the "prohibited service area" ultimately came under the restrictions of the Bayou aux Carpes CWA Section 404(c) designation.

As previously mentioned, federal involvement with the Bayou aux Carpes property began in the 1960's with a proposed Corps flood control and reclamation project. The first phase of that project was completed in 1973 and, at the request of EPA Region 6, the Corps re-evaluated the next phase. The Chief of Engineers subsequently ordered the project to be modified to provide flood protection but to avoid draining the Bayou aux Carpes wetlands. Substantial litigation ensued, with various landowners filing suits against the Parish[1] and the Corps[2]. As a result, that phase of the project was never

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[1] See Creppel v. Parish of Jefferson, 384 So.2d 853 (La. App. 4th Cir. 1980), writ denied, 392 So.2d 698 (La. 1980).

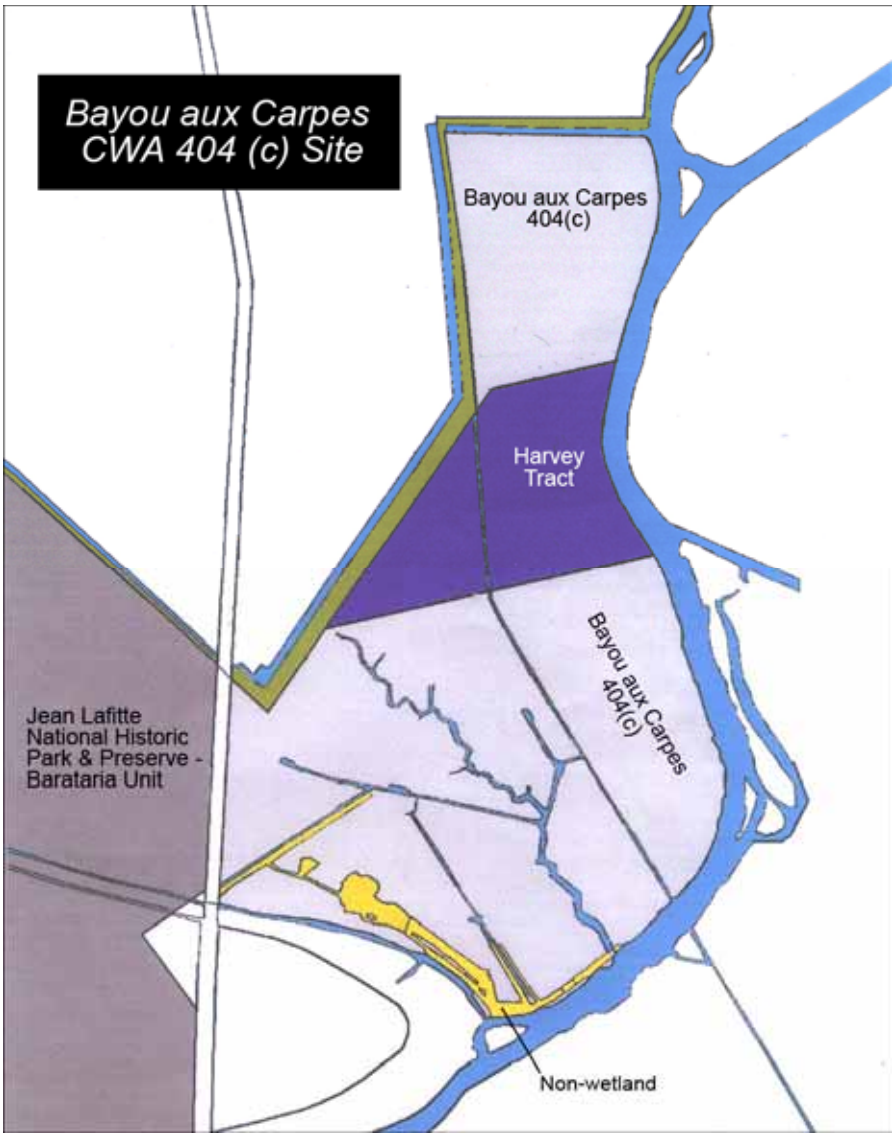
[2] See Creppel v. United States Army Corps of Engineers, 500 F.Supp. 1108 (E.D.La. 1980) and Creppel v. United States Army Corps of Engineers, 670 F.2d 564 (5th Cir. 1982).

constructed, though a shell plug was installed at some point at the mouth of Bayou aux Carpes.

One of the reasons the Corps ordered the Harvey Canal – Bayou Barataria Levee Project modified in 1976 was a threatened "veto" by EPA under the authority of CWA Section 404(c). The District Court (on remand from the 5th Circuit Court of Appeals), stayed the proceedings to allow EPA 90 days to determine whether or not to proceed with a CWA Section 404(c) action. An administrative restriction or prohibition of discharges could have effectively nullified, or complicated, a judicial ruling in the case. EPA Region 6 conducted an additional site review, initiated a CWA Section 404(c) action in 1984, and published the existing designation in 1985.

In response to the CWA Section 404(c) designation, the landowners amended their complaint in the federal suit, alleging that the EPA decision was arbitrary and capricious and should be set aside. In addition, they sought to set aside the 1979 MOA between EPA and the Parish and a 1976 permit decision by the Corps that required the installation of culverts under the Lafitte-Larose highway to maintain water flows from the Bayou aux Carpes area to the area that is now the Jean Lafitte National Historical Park and Preserve. The District Court rejected each of those claims.

Subsequently, the landowners filed a Tucker Act claim contending that the 5th Amendment to the United States Constitution required EPA to compensate them because the CWA Section 404(c) designation had deprived them of all economically viable use of their property. After several years of procedural litigation, those claims were compromised in 1996 and the federal government purchased the plaintiff's property for a price in excess of $8 million. The land purchased included about 2800 acres of wetlands covered by the CWA Section 404(c) designation. Small areas of uplands and a large tract of privately held land (the "Harvey Tract") were not purchased by the government.



EPA, 2008

In a separate but related action in the 1980's, the Corps proposed to construct a hurricane protection levee for the west bank of Jefferson Parish. The preferred alternative in the Corps' 1984 Draft Environmental Impact Statement (EIS) would have resulted in the discharge of dredged or fill material into 59 acres of wetlands in the Bayou aux Carpes CWA Section 404(c) site, as well as to 257 acres of wetlands within the Jean Lafitte National Historical Park and Preserve. EPA Region 6 rated the Draft EIS as being "environmentally unacceptable" based on the projected impacts to wetlands and water quality. The Corps subsequently adopted and constructed another alternative, which avoided impacts to the wetland areas of concern to EPA.

In 1996, the Barataria-Terrebonne National Estuary Program (BTNEP) completed a Comprehensive Conservation and Management Plan, approved by the Governor and the EPA Administrator (BTNEP, 1996). The management plan represents over five years of work by a partnership including representatives of government agencies at all

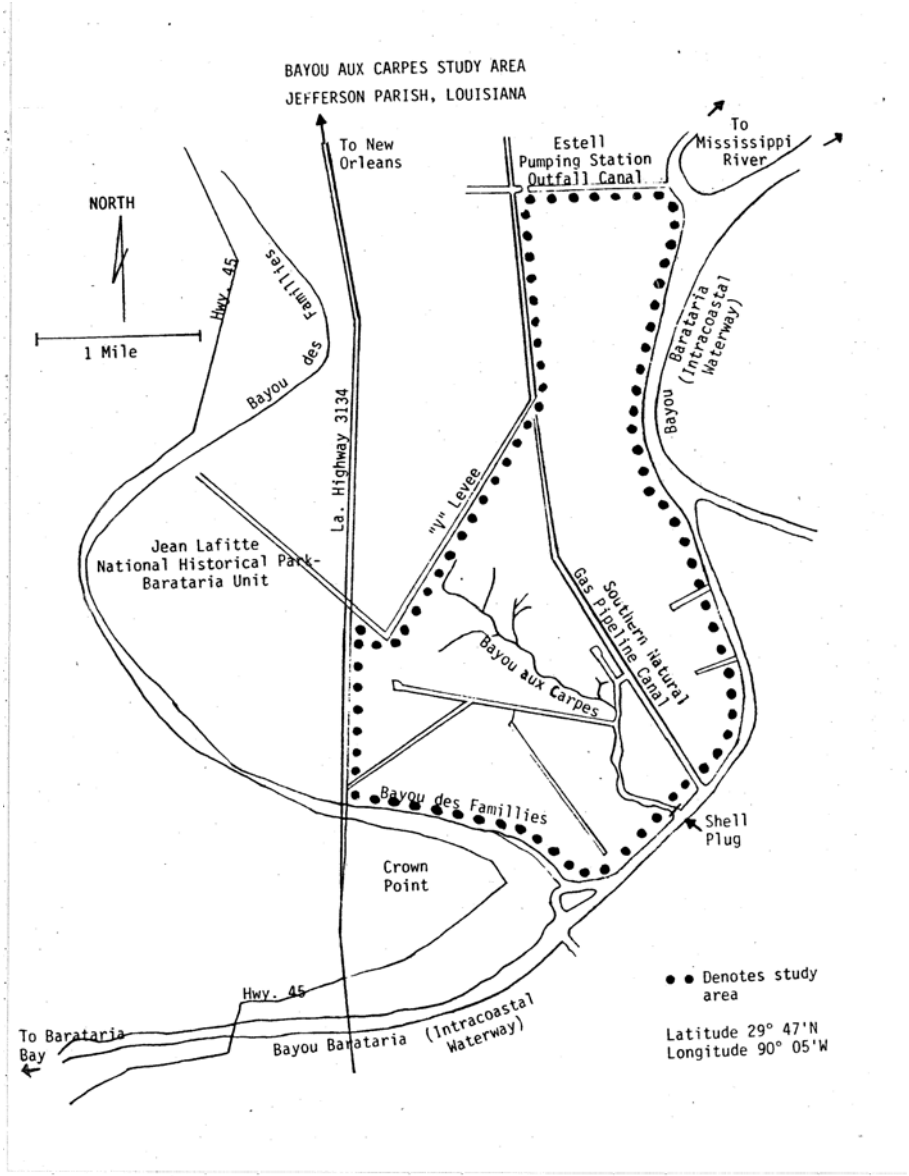
levels, scientists, industries, and citizens and serves as a guide for the preservation and restoration efforts throughout the Barataria-Terrebonne estuary over the next 25 years. The four million acre study area covers the entire Barataria-Terrebonne estuary and includes the Bayou aux Carpes CWA Section 404(c) site. One of the priority problems currently being addressed by the program is focused on habitat loss and modification. "No other place on Earth is disappearing as quickly as the Barataria-Terrebonne estuarine system, where a half-acre of coastal land turns to open water every 30 minutes. In the process, we are losing not only valuable resources but also a natural flood-protection system that absorbs storm water before it can harm our low-lying communities" (St. Pé, per. comm.). The Bayou aux Carpes CWA Section 404(c) site incorporates valuable coastal resources and provides a wide array of benefits, including flood protection services, to the citizens of this area.

As described above, most of the site is now federally owned and the CWA Section 404(c) designation continues to apply to all wetlands within the site, regardless of ownership. The most recent federal action was finalized on March 30, 2009, as the President signed the Omnibus Public Land Management Act of 2009, which added the federally owned portion of the CWA Section 404(c) site to the Barataria Preserve unit of Jean Lafitte National Historical Park and Preserve.

In summary, the public record of governmental decisions on this property is extensive but the EPA Bayou aux Carpes CWA Section 404(c) designation has stood the test of time.

Past and Current Ecological Status of the Site

The Bayou aux Carpes CWA Section 404(c) site is bounded on the north by the east-west Old Estelle Pumping Station Outfall Canal, on the east by Bayou Barataria (Gulf Intracoastal Waterway, or GIWW), on the south by Bayou Barataria and Bayou des Familles, and on the west by State Highway 3134 and the ''V-Levee.'' Immediately across State Highway 3134 to the west of the site is the Barataria Preserve unit of Jean Lafitte National Historical Park and Preserve.



EPA, 1984

The CWA Section 404(c) site lies in the upper Barataria basin within the Mississippi deltaic plain, an area experiencing some of the highest historic rates of coastal wetland loss in the county and on a worldwide basis. Coastal wetland loss has been widespread in Louisiana over the past half century and has averaged approximately 100 km^2 per year during the 1960's through the 1980's, decreasing to approximately 62 km^2 per year between 1990 and 2000. An additional loss of approximately 1300 km^2 is anticipated by 2050 (Evers et al., 2007). This region experienced a spike in wetland loss and degradation as a result of hurricanes over the last few years. The Bayou aux Carpes site, however, has weathered the storms and other natural and human-induced forces, existing today as a unique and productive wetland system, which provides ecological, flood storage, and water quality benefits. The approximately 3,000 acres of wetlands within the Bayou aux Carpes CWA Section 404(c) site represent an important regional and national asset.

EPA, 2008

The 1985 scientific analyses (EPA, June1985; EPA, January 1985; LSU, 1984; USFWS, 1985; Steimle and Associates, 1985) supporting the original CWA Section 404(c) evaluation concluded that the site was a diverse estuarine ecosystem consisting of a mosaic of habitats, including forested wetland, shrub wetland, cypress-tupelo swamp, marsh, and open water. Today, the habitat looks much the same.

From an ecological perspective, the Bayou aux Carpes CWA Section 404(c) site exhibits some particularly notable habitat features. Within the forested swamps, naturally-regenerating cypress trees may be found, a situation all too uncommon along the Louisiana coast where natural and human-induced alterations have resulted in conditions limiting natural regeneration. The resulting loss and degradation of the ecosystem functions provided by coastal wetland forests has been highlighted by a report to the Governor of Louisiana from the Coastal Wetland Forest Conservation and Use Science Working Group (CWFWG, 2005).

Yet another fascinating ecological feature is exhibited in the site. One of the dominant habitat types present in the CWA Section 404(c) site is flotant (or floating) marsh. This is an ecologically valuable and unique type which functions quite differently than the better-understood attached marshes (Sasser et al., 1994). These marshes react differently to natural and human-induced processes and require different strategies for management (BTNEP, August 1996).

Virtually unstudied since initial descriptions in the 1940's, mapping efforts funded by EPA Region 6 revealed that about 70% of the freshwater marshes in the Barataria-Terrebonne estuary are floating (Sasser et al., 1994). Aside from the Bayou aux Carpes CWA Section 404(c) site, about 3,000 hectares of healthy flotant marsh are found in the Barataria Unit of Jean Lafitte National Historical Park and Preserve (Swarzenski, no date). However, "[i]n the freshwater areas of the coasts, major losses have occurred in the floating marshes that have historically covered extensive areas, particularly in the Mississippi River Deltaic Plain…" (Evers et al., 2007).

They are usually found in areas with freshwater or brackish marshes and they are composed of thick, floating mats of vegetation with open water beneath them. "They apparently develop in quiet freshwater environments where organic matter production in the absence of mineral sediment inputs make the marsh mat buoyant. As the underlying mineral substrate subsides, the buoyancy of the mat eventually leads to its separation from the substrate, and it subsequently floats on the water surface" (BTNEP #20, 1995).

"The classic example of floating marsh (flotant) in Louisiana is a marsh dominated by maidencane (*Panicum hemitomon*). It has a 40-60 cm thick, buoyant, organic mat of densely intertwined roots and rhizomes in a mostly organic matrix that floats continuously, rising and falling with level changes (Sasser et al., 1994). This ability to float vertically as water level increases effectively neutralizes flooding as a stress, while providing a continuously wet environment for vegetation growth" (Evers et al., 2007). As a part of the mitigation and enhancement/augmentation study plan being devised (see "Projected Impacts and Studies" below), further characterization of the Bayou aux Carpes CWA Section 404(c) area flotant marsh will be accomplished.

NPS, 2008

During the field studies in 1984 and 1985, at least 70 wildlife species were observed, including nine species of amphibians, 10 species of reptiles, 45 species birds, and six species of mammals. At least 23 species of freshwater fish and 27 taxa of macroinvertebrates were observed. Forage species (e.g., mosquitofish, threadfin shad, and golden top minnow) were the most abundant fish species sampled. The field data showed the area to be seasonally brackish, supporting species that can tolerate both fresh and brackish salinities. The USFWS concluded in 1985 that the "diverse assemblage of fisheries species is indicative of a stable fisheries community in a relatively unstressed environment" (USFWS, 1985).

The USFWS 1985 habitat analysis determined that the bottomland hardwood and forested swamp habitat in this drainage area "rated moderate to high value for all species evaluated (i.e., gray squirrel, pileated woodpecker, North American mink, wood duck, great egret, American alligator, and common muskrat). Upland forested habitat rated low for gray squirrel and pileated woodpecker and was found to be optimum for mink. Scrub-shrub wetlands in the study area were found to be of high quality as wood duck wintering habitat and alligator habitat, and were moderate quality for mink, great egret, and muskrat. Fresh marsh was of high to moderate in value as alligator, mink, and muskrat habitat" (USFWS, 1985).

During the 2008 field studies for IER # 12, the USFWS found that the habitat continues to be significant for fish and wildlife, providing "valuable habitat for resident waterfowl and migratory game species (i.e., wood ducks, mallards, and other waterfowl) and non-game species (i.e., great blue herons and great egrets)." Bald eagles and osprey have been observed in the area and a bald eagle nest was documented in the Bayou aux Carpes site in 2007. "Several species of non-game, resident and migratory birds that are known to utilize or expected to utilize the project area (e.g., red-headed woodpecker, prothonotary warbler, and wood thrush) have exhibited substantial population declines over the last 30 years, primarily as the result of habitat loss and fragmentation, and are of particular concern to the Service. The Bayou aux Carpes drainage area and associated habitats provide valuable spawning, feeding, and nursery habitat for recreationally-important freshwater fish such as largemouth bass, and various sunfishes; crustaceans such as crawfish and grass shrimp; and estuarine species such as striped mullet and blue crab." …"The Bayou aux Carpes drainage basin provides plant detritus to adjacent coastal waters, and such detritus is essential to the maintenance of commercially and recreationally important fisheries" (USFWS, 2009).

In addition to habitat values, the Bayou aux Carpes CWA Section 404(c) wetlands provide floodwater storage and water quality benefits. During the 1984 -1985 studies, the relatively flat topography was found to enhance the capacity of the area to detain surface waters and slow the release of water downstream. The water storage capacity was confirmed by measuring the cyclic chloride concentrations of swamp water discharged to Bayou Barataria and by monitoring a dye tracer. This also contributes to downstream water quality by reducing excessive dissolved nutrient levels and removing suspended sediments" (USFWS, 2009).

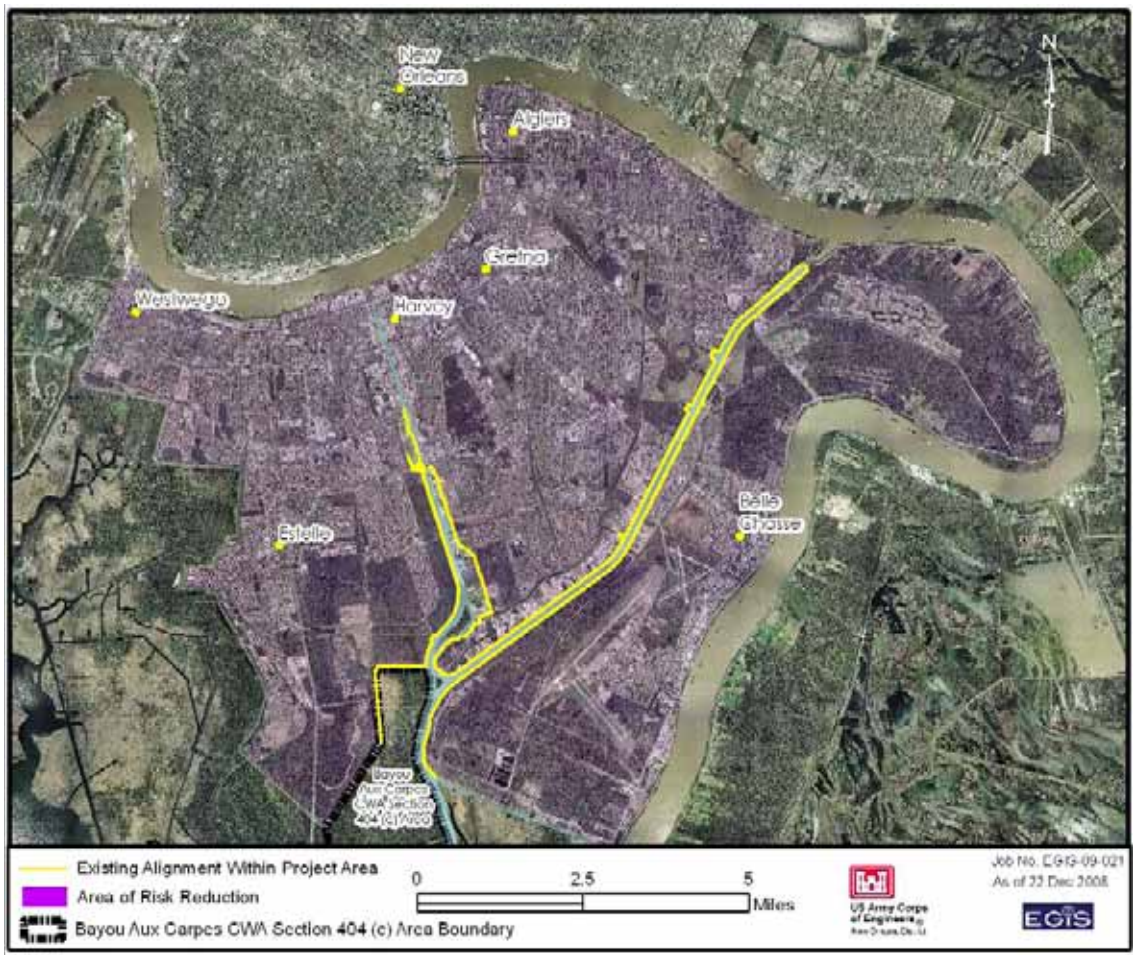
The CWA Section 404(c) area was historically drained by Bayou aux Carpes, which has been plugged at its connection to Bayou Barataria for several decades. Tidal connection is now maintained through the old Southern Natural Gas pipeline canal that courses through the CWA Section 404(c) site, connecting to other interior canals and to Bayou Barataria. The current working hypothesis of the resource agency review team is that

the system of interior access canals and associated spoil banks influences the system's hydrology by impeding flows. Pending hydrology studies by the Corps are expected to shed some light on this situation and aid in developing mitigation and augmentation features.

The currently proposed project location within the Bayou aux Carpes site is comprised of bottomland hardwood and swamp habitat that has formed on top of the western bank of the GIWW, created when the waterway was originally dredged (USACE, 2009). The bank is low and undulating and shows signs of downed and damaged trees as a result of recent hurricane winds. The floodwall would serve as an artificial barrier between the site and the GIWW.

Proposed Action

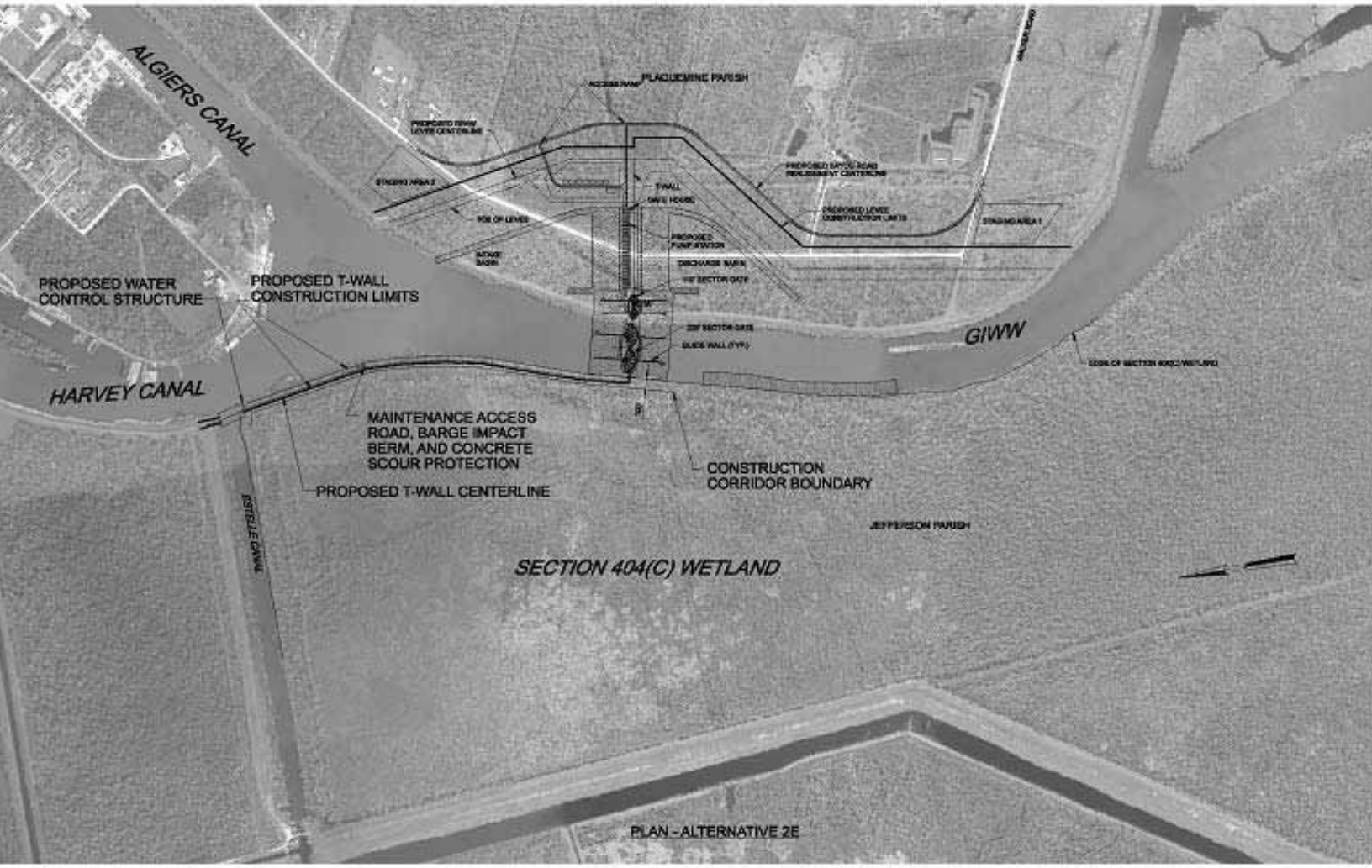
As a result of the residential, commercial, and industrial damages caused by Hurricanes Katrina and Rita in 2005, Congress directed the Corps to enhance the existing Lake Pontchartrain and Vicinity Hurricane Protection project and the West Bank and Vicinity Hurricane Protection project to the 100-year level of protection, as determined by the Federal Emergency Management Agency. As proposed, that work largely follows existing alignments, with a notable exception in the Bayou aux Carpes CWA Section 404(c) area with the IER # 12 study area, which is depicted below in the Corps' graphic.

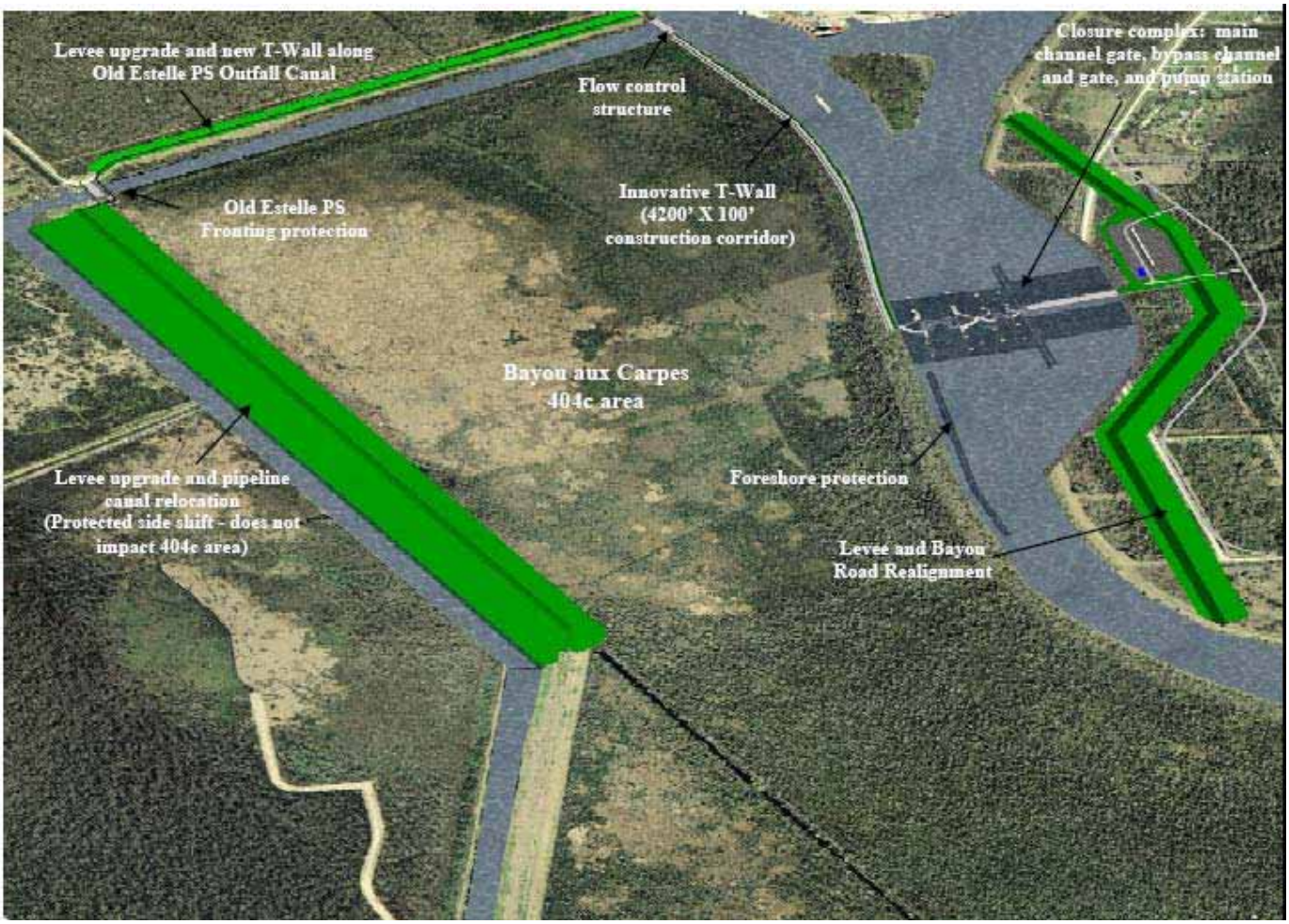


By way of the West Closure Complex alternative, the Corps plans to construct an improved storm surge barrier system around the Bayou aux Carpes CWA Section 404(c) area and tie into a new array of flood gates and pumping stations crossing the GIWW. The Corps' diagrams of these structural features are reproduced below.

CURRENT PROPOSED SITE PLAN

- LOCATION OF STRUCTURES WITHIN 404(C) AREA WOULD REMAIN AS SHOWN. MAXIMUM AREA OF IMPACT WOULD BE 100' WIDE BY 4200' LONG (9.6 acres).
- ORIENTATION OF PUMP STATION, GATE(S), BYPASS CHANNEL AND LEVEE ON EAST SIDE OF GIWW ARE NOT FINAL AND COULD CHANGE AS DESIGN PROGRESSES.





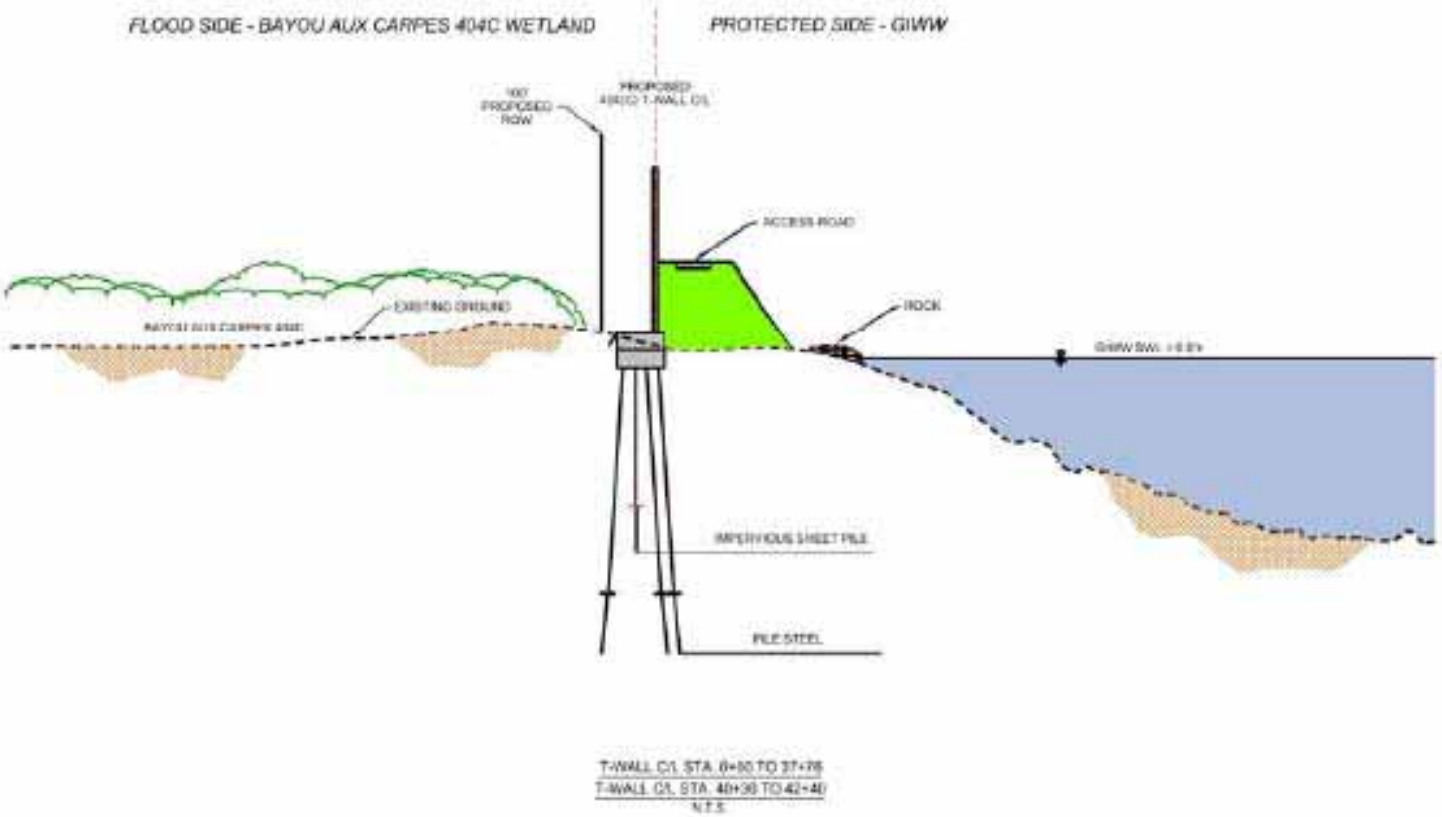
The construction area within the Bayou aux Carpes CWA Section 404(c) boundary is located along the west bank of the GIWW, or Bayou Barataria, from its junction with the Old Estelle Pumping Station Outfall Canal to a point at which the Corps proposes to construct a sector gate across the Waterway. As described in the March 26, 2009 letter to EPA (Part I, Appendix B), the floodwall would be constructed on the previously impacted GIWW spoil bank. As described by the Corps:

> The design would consist of a T-wall design to minimize the footprint of the structure in the Bayou aux Carpes 404(c) area and foreshore protection using 650 lb stone in the GIWW adjacent to the Bayou aux Carpes 404(c) area. The T-wall would tie into the proposed flow control structure at the end of the Old Estelle Outfall Canal to the north and the closure and pump station complex that would cross the GIWW to the south. The T-wall would be constructed within the 100 ft by 4,200 ft corridor along the eastern edge of the Bayou aux Carpes 404(c) and include an earthen berm with an access road for maintenance and inspection purposes. The floodwall would be a cast-in-place reinforced concrete T-wall designed to elevation +16.0 ft (NAVD 88 2004.65) founded on three rows of steel H-piles. Preliminary design calculations indicate the concrete stem would be 14 ft tall and 2 to 3 ft thick, while the concrete slab would be 3 to 5 ft thick and 20 to 25 ft wide. A continuous steel sheet pile wall will be provided beneath the

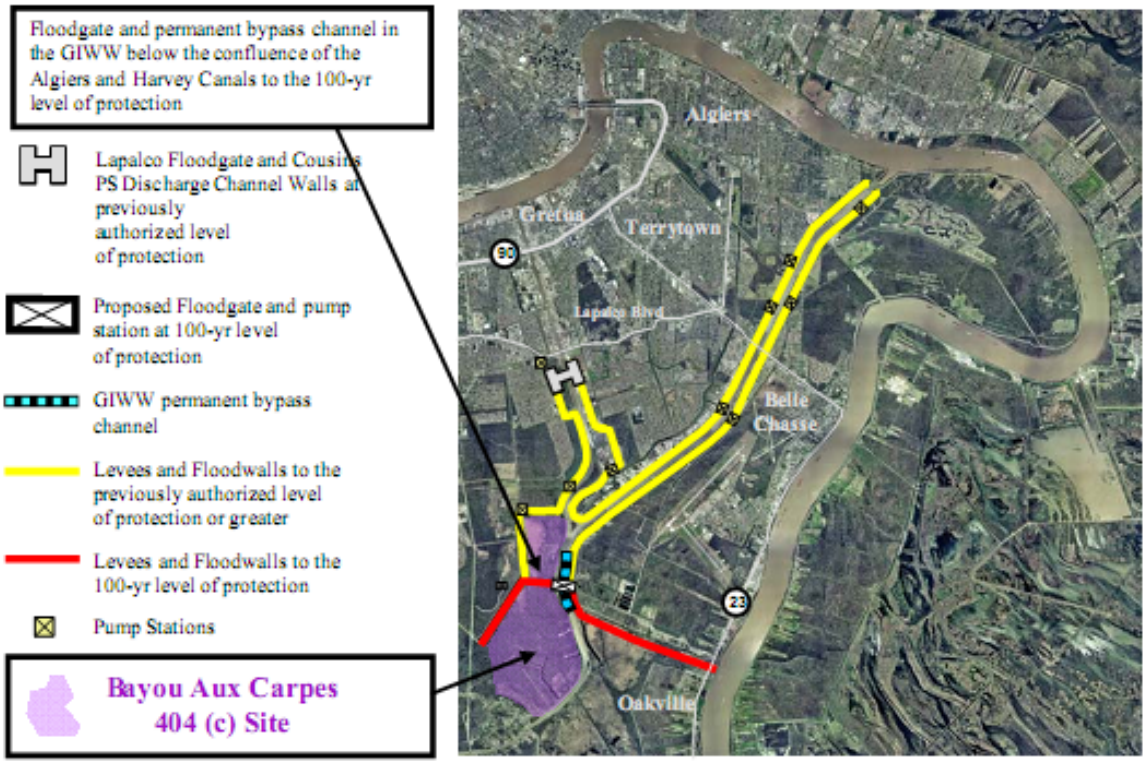
base slab for seepage cutoff purposes. Construction of the proposed action would impact no more than 9.6 acres within the Bayou aux Carpes 404(c) boundary. The Corps is committed to further reducing this footprint to the greatest extent practicable during the final design phase of this project.

With this proposed action, protection of the wall from potential barge impacts would be provided by the earthen berm and access road along the existing bank line constructed to elevation +8 ft (NAVD 88 2004.65) on the protected side of the floodwall. The location of the wall away from the waterway's edge increases the safety of the wall against potential catastrophic barge tow impacts by absorbing the energy of the impact in the embankment, thus stopping the tow before it contacts the wall. Placement of the protected earthen berm outside the channel results in no constriction of the waterway as a storm water evacuation route. The reliability of the HSDRRS is highest for this alternative and the potential for damage to the protected side of the floodwall by the daily commercial marine traffic is lessened.

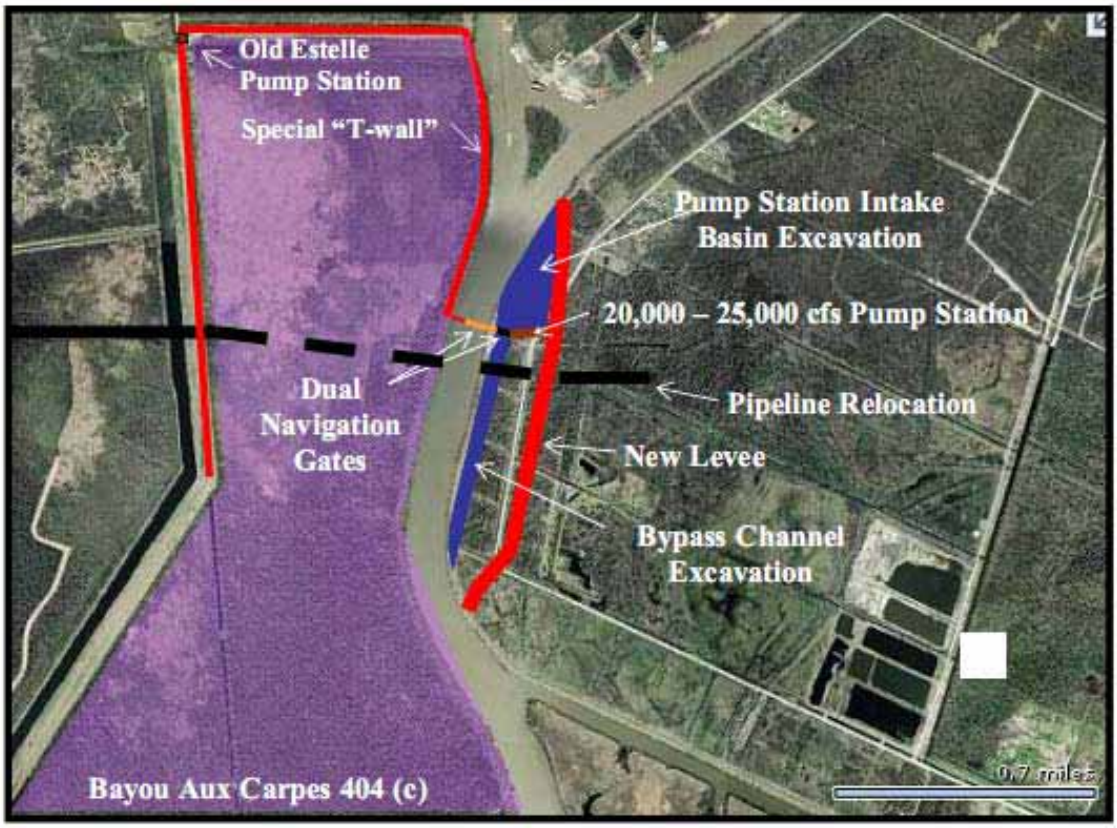
The placement of the wall within the 100 ft by 4,200 ft corridor on the previously impacted area of the Bayou aux Carpes 404(c) area, along with the commitment by the Corps to augment the design as necessary to enhance the hydrology of the Bayou aux Carpes 404(c) area to offset any potential impacts due to construction, provides the most practical approach from an environmental perspective while ensuring the 100-yr level of risk reduction is accomplished and completed expeditiously.



EPA Region 6 played a key role in assisting the Corps in evaluating the ecological risks associated with the leading project alternatives during the project planning phase (USACE, 2009, Section 6.3). Initially, the Corps' preferred alternative included a 3,000 foot long levee, and then a 3,000 foot floodwall, bisecting the Bayou aux Carpes CWA Section 404(c) site (the South Sector Gate alternative). Early in the planning process, EPA Region 6 notified the Corps of our determination that this option would present irreparable environmental impacts and would most likely result in the loss of over 600 acres of unique flotant marsh wetlands. Below, is a diagram of the Corps' initially preferred alternative.



Along with the NPS, EPA Region 6 suggested a conceptual alternative, which the Corps subsequently designed and which is now known as the West Closure Complex alternative. At the request of EPA Region 6, the interagency review team was provided an opportunity to conduct a detailed comparison of the environmental impacts of the leading alternatives and concluded that the West Closure Complex alternative was preferable. The Corps reviewed and adopted the conclusions of the natural resource agencies and determined that the West Closure Complex option would meet the economic, social, and engineering risk and reliability criteria. That alternative became the Corps' current preferred alternative, now known as the West Closure Complex alternative and illustrated below.



A summary of the risk and reliability comparison for the four main structural alternatives that were carried through the NEPA planning process is provided in the Corps' modification request package, attached below (Part I, Appendix B, pages 9–12). The Corps' current preferred alternative, the West Closure Complex, is listed in the charts as the "GIWW WCC" alternative. The evaluation criteria include reliability, risk, environmental impacts, and time. This comparison incorporates the entire GNOSHDRRS planning segment known as IER # 12, a segment larger than the Bayou aux Carpes CWA Section 404(c) alignment.

Once the West Closure Complex alternative became the preferred design, EPA asked the Corps to consider any siting or design options that could reduce the environmental impacts even further. One suggestion was to build the floodwall within the same alignment but closer to the GIWW or completely within the water outside the boundary of the Bayou aux Carpes CWA Section 404(c) site. A number of environmental organizations also focused on this issue, as reflected in the Responsiveness Summary (Part II of this document). In the end, the Corps found that this was not a viable alternative that would meet the project purpose. Such an alternative was determined to pose significant navigational safety issues and would not meet the cost, social, and engineering risk and reliability criteria (Part II: Responsiveness Summary, Appendix A). After careful review of the Corps' analysis, EPA Region 6 accepts those conclusions.

In addition to the Corps' preferred West Closure Complex alternative, three other major alternatives were evaluated in detail. The "No Action" alternative affords the greatest level of protection to all environmental attributes within the planning segment covered by DIER # 12, including the Bayou aux Carpes CWA Section 404(c) area. While both the

Algiers Gate Alternative and the Parallel Protection Alternative would avoid impacts to the Bayou aux Carpes Section 404(c) area, there would be environmental impacts to other areas of the flood protection planning segment covered by DIER # 12. Based on our review of the Corps' recommendations regarding the relative flood risk reduction benefits, social and economic costs, as well as the hydrologic, engineering, and navigation constraints, the West Closure Complex alternative has the potential to accomplish the Corps' flood control, navigation, timing, and engineering objectives while avoiding and minimizing the impacts to the Bayou aux Carpes CWA Section 404(c) area to the maximum degree possible (USACE, 2009).

The Corps has incorporated into the West Closure Complex alternative a number of innovative designs and construction techniques to reduce the wetland impacts. The structure proposed in the Bayou aux Carpes CWA Section 404(c) area would be constructed as a "T-wall" style floodwall in lieu of an earthen levee in order to minimize the footprint. A berm to protect the floodwall from barge collisions would be constructed on the water side of the floodwall and would serve as a maintenance access road. This configuration would contain impacts within a maximum 100 foot width. The floodwall would be built from the water side to reduce construction impacts and the Corps has committed to make every effort during the design phase to minimize the width of this corridor to the greatest extent practicable. Further, the Corps has located the gates and pumps that would span the GIWW as far north as practical to further reduce the length of the structure along the boundary of the Bayou aux Carpes CWA Section 404(c) site. These factors have resulted in a maximum corridor for the floodwall of 4,200 feet by 100 feet.

The existing Enterprise Gas pipeline would be relocated by directional drilling a new pipeline under the proposed bypass channel, the GIWW, and the Bayou aux Carpes CWA Section 404(c) area. By directional drilling the pipeline under the 404(c) area, relocation impacts are avoided as are any future impacts associated with maintaining this portion of the pipeline. Finally, a foreshore protection feature (rock berm) would be constructed near the southern end of the floodwall and further south of it, totally within the GIWW. The purpose of this feature would be to prevent impacts to the Bayou aux Carpes CWA Section 404(c) boundary such as scouring or bank erosion that could result from operation of the 20,000 cfs pump station.

Projected Wetland Impacts and Ecological Studies

The lengthy planning, engineering, and interagency review process has resulted in the development of a storm damage risk reduction alternative (West Closure Complex alternative) which has avoided and minimized impacts to the Bayou aux Carpes CWA Section 404(c) area to the extent practicable. However, implementation of this alternative will still result in unavoidable impacts, or discharges, to wetlands in the restricted site. Loss of this habitat value is not expected to jeopardize the ecological integrity of the CWA Section 404(c) wetland site and the loss of habitat will be fully compensated, as described below.

The proposed floodwall would impact no more than 9.6 acres within a 100 foot width from the GIWW toward the interior of the Bayou aux Carpes CWA Section 404(c) site. A maximum of 7.2 acres of cypress-tupelo swamp and 2.4 acres of bottomland hardwood wetlands within the site would be directly and permanently impacted by mechanical

clearing and grubbing prior to construction of the new floodwall. Hydrologic impacts to the CWA Section 404(c) site from the floodwall are expected to be minimal. No additional indirect effects are anticipated. Early in the planning process, EPA Region 6 advised the Corps that full mitigation and additional compensation for unavoidable wetland impacts to the Bayou aux Carpes CWA Section 404(c) site would be a required component of a modification request package.

As described in the section above, EPA Region 6 staff has provided guidance to the Corps on avoiding and minimizing the impacts to the Bayou aux Carpes CWA Section 404(c) site from the West Closure Complex alternative and continue to evaluate the possibilities for minimizing and mitigating those impacts. In addition, we are working with an interagency team to evaluate an array of additional features that might provide environmentally beneficial hydrologic and wetland effects. These enhancement features are being considered in order to add an extra measure of environmental benefits in light of the unique status of the CWA Section 404(c) site. Also, the alternative NEPA procedures developed for the GNOHSDRRS project include a provision for a cumulative impact assessment to be published as one of the last pieces in the NEPA documentation process.

Accordingly, we are not currently able to offer a final evaluation of the full range of impacts associated with the proposed West Closure Complex alternative and the associated mitigation and augmentation features. However, we clearly understand the maximum extent of the projected unavoidable impacts and we have reached an understanding with the Corps and the interagency review team as to the minimum amount of mitigation required to offset the wetland impacts (USFWS, 2009 and USACE, 2009). The Corps has also agreed to fund and implement additional ecological enhancement features, if the results of ongoing investigations indicate that they will contribute environmental benefits (see Part I, Appendix B).

As previously mentioned, the Corps has involved a team of State and federal agencies with natural resource expertise to advise them on the study designs and data analyses for the mitigation and augmentation features. This work is not complete and may not be completed for some time to come. However, an adaptive process of mitigation and augmentation feature design and implementation has been agreed upon by the Corps (see Part I, Appendix B, and USACE, 2009). An adaptive management approach involves monitoring changes over time, evaluating the observed results with respect to intended objectives, and applying any changes needed to achieve the desired outcome.

Some hydrologic and water quality data collection work will extend over several hydrologic periods. While some field analyses have begun, other data collection is planned and is expected to continue for at least year, and possibly longer, depending on the findings. The advisory team is not comfortable in making recommendations regarding hydrologic and ecological modifications to a wetland of national significance without further study. EPA Region 6 trusts that the Corps will continue to work with the advisory team in good faith on this adaptive approach, as outlined in the November 4, 2008 modification request letter from Col. Alvin B. Lee to Lawrence E. Starfield (Part I, Appendix B).

A considerable amount of field work has already been initiated and some aspects have been completed. As an example, the Corps' Engineering Design and Research Center (ERDC) is currently studying hydrology and inundation data in an effort to analyze

mitigation and augmentation features that might improve circulation throughout the site, e.g., gapping canals and re-establishing historic tidal connections.

Another example is the work led by USFWS, with participation by an interagency team, to analyze the habitat impacts of the proposed alternative. Two methodologies were employed to quantify changes in habitat quality and quantity that are projected to occur as a direct result of the proposed 4200-foot floodwall to be constructed along the GIWW. The Wetland Value Assessment methodology was employed for the cypress-tupelo swamp habitat and the Habitat Assessment Methodology was employed for the upland and bottomland hardwood habitat over the maximum acreage expected to be effected (9.6 acres). Specific recommendations to protect flora and fauna were also prepared by the USFWS and documented in the Fish and Wildlife Coordination Report for IER # 12 (USFWS, 2009).

Field work that is still in the planning phase focuses on the flotant marsh habitat and will be led by the U.S. Geological Service (USGS), in consultation with the Corps, NPS, USFWS, EPA Region 6, and the rest of the interagency team. Data will be collected to assist the team in evaluating the potential effects of allowing surface water from the Estelle Outfall Canal to circulate through the marsh. As a contingency, the Corps is incorporating into the project design a flow control structure at the junction between the Estelle Outfall Canal and the GIWW in case it is determined that these flows should be limited under certain hydrologic conditions. Monitoring stations will be established to gain an understanding of the hydraulic gradients across the marsh.

The surface water studies include a review of data collected by Jefferson Parish at the Estelle pumping station and canal and some new post-rainfall samples will be collected and analyzed for selected parameters. The interagency scientific team has not recommended starting off with a broad sampling spectrum of surface water parameters but with a more narrowly targeted suite of parameters. This recommendation was made based on practical knowledge of the effects of similar sources of surface water flows to the same type of flotant marsh habitat existing within the Jean Lafitte National Historical Park and Preserve, Barataria Preserve Unit, which is adjacent to and hydrologically connected to the Bayou aux Carpes CWA Section 404(c) site.

In addition to the habitat, hydrology, and surface water quality studies of the flotant marsh, the effects of potentially adding nutrients or contaminants from increased stormwater flows through the site from the Estelle Outfall Canal will be assessed, starting with an examination of porewater quality. Sampling bottom sediments over time will provide an indirect method of assessing whether contaminants from stormwater are accumulating, as will tracking macroinvertebrate community composition and analyzing fish tissue contaminant concentrations. Soil characteristics of the flotant marsh will also be analyzed in order to establish a basis for future comparisons and the current marsh type will be classified according to a system previously by scientists from LSU, as a result of previous work partially funded by EPA Region 6.

As a baseline for comparison, the results of the initial phase of ecological studies will be compared to results from similar marshes within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve that are considered to be healthy and productive.

To complement the characterization and modeling efforts described above, a long-term monitoring plan will be devised and the results will be used to respond to any unanticipated impacts to the site. Since the design of the monitoring plan depends upon the ERDC hydrology studies, details are still pending.

The Corps' Draft IER # 12 (USACE, 2009, page 158) describes the mitigation and augmentation feature planning process:

> Mitigation procedures and requirements regarding impacts within the 404c area are being coordinated with the EPA, USFWS, and the National Park Service. Mitigation for all unavoidable adverse impacts to the Bayou aux Carpes CWA Section 404(c) area would occur within the Bayou aux Carpes CWA Section 404(c) area and/or JLNHPP as per agreement with the resource agencies. …[A]dditional coordination is required to determine the best possible mitigation actions. Mitigation projects would be designed and implemented concurrently with the design and construction of the project. Full mitigation within this unique environment may require mitigation in addition to the basic average annual habitat unit method as determined by Wetland Value Assessment (WVA) models used by the USACE in cooperation with the resources agencies (see table 7b). Project feature augmentations would be considered by the mitigation team as they develop a full plan to compensate for any unavoidable impacts. The CEMVN has agreed to work in collaboration with state and Federal agencies to ensure a successful mitigation effort.

Also, the initial study plan recommended by the advisory team, subject to further revision, is described in the following excerpt from IER # 12 (USACE, 2009, pages 160-162):

> To determine which project augmentations would be most beneficial to the Bayou aux Carpes CWA Section 404(c) area an interagency study effort is being completed to establish existing soil and water-quality conditions in the Bayou aux Carpes CWA Section 404(c) wetlands, as well as prevailing patterns of inundation within and adjacent to the 404c area. The wetlands in the Bayou aux Carpes CWA Section 404(c) area are currently isolated from direct inflow of storm water runoff and natural tidal exchange in some locations because of levees and dredge material banks. Upon completion of the interagency study storm water runoff may be directed from the Old Estelle Pump Station through and across the wetlands and some tidal exchange may be permitted in certain areas to restore the natural hydrology. It is unknown what impact this change in water quality and hydrology may have on the wetlands. The wetlands consist of floating marshes, with a predominately organic substrate, and forested wetlands, some of which occur within the floating marshes (see the Bayou aux Carpes CWA Section 404(c) area description in section 3.2.2).
>
> Studies are underway at the USACE Engineering Research and Development Center (ERDC) in Vicksburg, Mississippi, the Vicksburg USACE District, and at the United States Geological Survey in Baton Rouge, Louisiana to determine the best possible design to allow for maximized benefit of this work in the Bayou aux Carpes CWA Section 404(c) area. Hydrologic and environmental surveys are ongoing within and adjacent to the 404c to determine the appropriate areas for the proposed dredge material bank gapping within the Old Estelle discharge canal and dredge material bank gapping in other canals and for the removal of plugs or portions of the plugs in Bayou aux Carpes and other canals. In addition, the surveys will determine the appropriate water flow velocities within the Bayou aux Carpes CWA Section 404(c) area so creating the gaps and removal of canal plugs can be properly designed. Additional design work would take into consideration the appropriate nutrient loading levels. These studies will be integrated into the efforts of the Interagency resource team that was formed early in the

analysis phase to ensure that the national interest placed on the Bayou aux Carpes site meets the wisest and best use of the area. All actions would be fully coordinated with the EPA and the interagency team and the public before being implemented.

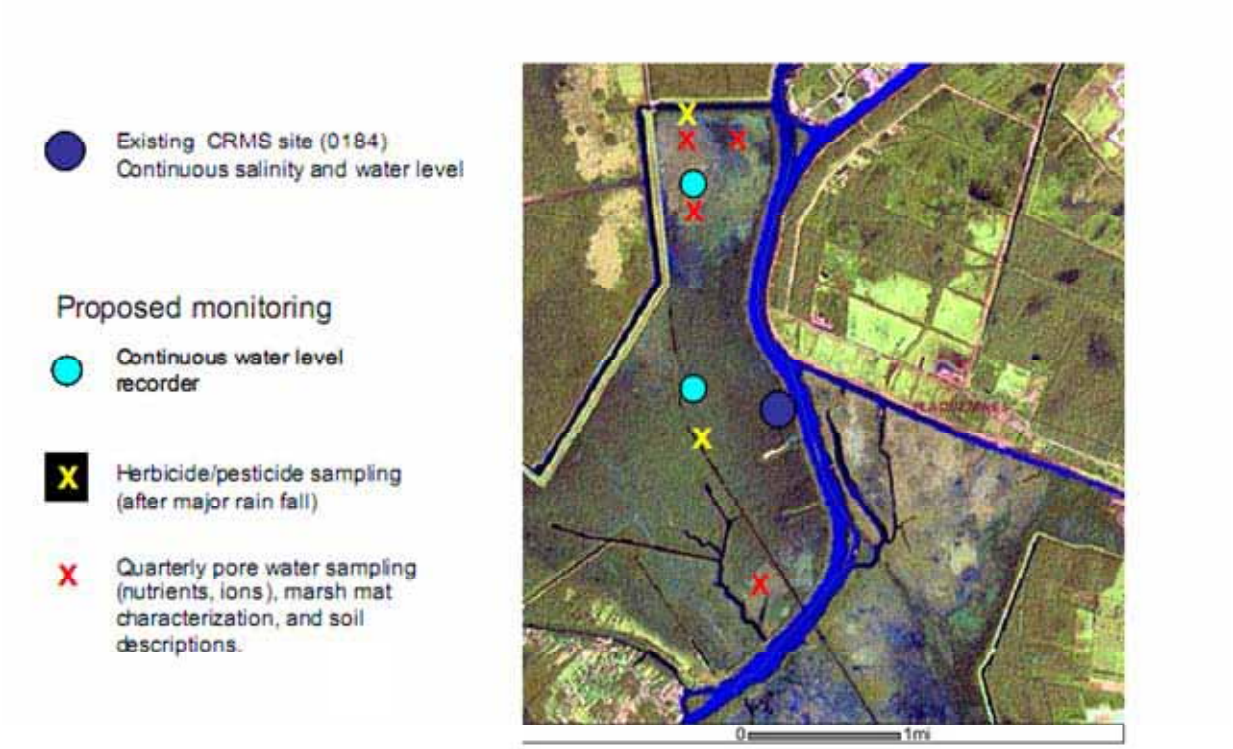
The monitoring of preexisting conditions has three components:

Floating marsh:
Pore water quality will be documented at four locations, near and at some distance from the project area (Figure 14). The two northern most sites are located approximately 50 yards to 100 yards off the dredge material bank. At each marsh sampling site, pore water will be sampled at 15 cm and 45 cm depth for a suite of parameters including low-level nutrients including dissolved inorganic N, ions and dissolved organic carbon. Samples will be taken quarterly, in November of 2008, and in February, late April and August/September 2009.

At these same sites, soil quality (degree of decomposition) will be documented at 5 cm and 15 cm depth (root zone) using the NRCS fiber analysis (see Swarzenski and others, 2005; Figure 14). In addition, soils will be cored with a McAuly auger to a clay layer or 2 meters (whichever is nearer the surface), to evaluate the thickness of the peat layer. Floating marsh type will be determined following the Sasser et al (1996) classification.

Estelle Pumping Station
At the pumping station, one sample of surface water will be collected for analysis of a suite of herbicides, including fipronil and atrazine (Figure 14). Similarly, a surface water quality sample will be taken in the main canal. These samples will be collected 1-2 days after a major rainfall event.

Inundation, hydraulic gradient
Two stations continuously measuring water level will be established on the property, as per figure 14. An attempt to establish hydraulic gradients will be made by matching up peaks in the water surface during major inundation events, and hydraulic gradients established based on floor elevation.



Proposed water quality monitoring stations within the Bayou aux Carpes CWA Section 404(c) area.

The data collected throughout these ongoing studies would be compared to similar, pristine, nearby marshes, and would also provide baseline data against which to evaluate future change.

Once the baseline data set is completed and the results are presented to the Interagency team, the CEMVN in cooperation with the EPA, NPS, USFWS and other members of the Interagency team would determine which project feature augmentations would be beneficial to the 404c area. The ongoing studies to determine the existing hydrology and water and soil conditions within the Bayou aux Carpes CWA Section 404(c) area are considered to be adequate to determine which augmentations would be beneficial. Those beneficial project feature augmentations would then be implemented in partnership with the EPA and the NPS. Though these data are not available within this document, the data and project augmentation implementation plans will be disclosed in future environmental reports prior to any decision being made by the CEMVN District Engineer.

In addition to the ongoing environmental studies, the Interagency team also suggested cypress tree surveys along with eagle, wading bird, and other indicator species surveys should be conducted to indicate habitat quality. Baseline Bald Cypress and wildlife data would also be required. The cypress tree and wild life surveys are under consideration, and survey plans, including specific indicator species, survey frequency, etc., would be determined by the CEMVN in collaboration with the Interagency team and disclosed in future environmental reports.

The Corps, EPA Region 6, the NPS, and the interagency review team have agreed, as documented in the Corps' modification request letter (see Part I, Appendix B) that mitigation will be conducted within in the Bayou aux Carpes Section 404(c) area and/or other portions of the Jean Lafitte National Historical Park and Preserve, Barataria Preserve Unit. In light of the national significance of this wetland site, EPA Region 6 has advised, and the Corps has agreed, that mitigation should not be accomplished by buying credits at a mitigation bank. Further, the interagency team has established a priority for mitigation and augmentation features, as follows:

1) gapping the existing earthen bank along the southern side of the Old Estelle Outfall Canal to provide regulated sheet flow into the Bayou aux Carpes CWA Section 404(c) area;
2) modifying the existing earthen bank along the Southern Natural Gas Pipeline Canal to provide hydrological exchange between the northern and southern sections of the Bayou aux Carpes CWA Section 404(c) area;
3) modifying the shell plug at Bayou aux Carpes to provide hydrological exchange between the GIWW and the Bayou aux Carpes CWA Section 404(c) area;
4) closing the Southern Natural Gas Pipeline Canal to promote hydrological flow within the Bayou aux Carpes CWA Section 404(c) area;
5) gapping or grading down drill hole access canal banks to promote hydrological flow within the Bayou aux Carpes CWA Section 404(c) area; and
6) gapping or grading down oil well access roads to promote hydrological flow within the Bayou aux Carpes CWA Section 404(c) area.

EPA Region 6 believes that the development of a long-term monitoring plan is a key factor that will contribute to the success of any mitigation and augmentation plans. The same interagency team described above has agreed to help develop such a plan. Since the complete design of the long-term monitoring plan depends upon the results of the ongoing Corps ERDC hydrology studies, details of the plan are still pending. Initial recommendations being considered include establishing hydrologic gauges and vegetative monitoring plots for seasonal data collection. The goals for this monitoring effort will be to identify temporal changes in hydrologic patterns, vegetative community characteristics, and tree growth rate and regeneration as a result of the Corps project. This will include the effects of the floodwall as well as the mitigation and augmentation features. The long-term monitoring plan will be adaptive in nature, meaning it will be subject to change by the interagency review team along the way, depending on the incremental findings. If the constructed mitigation or augmentation features are determined at some point to be ecologically harmful, the Corps has committed to implementing the necessary modifications.

In addition to the interagency planning work described above, the Louisiana Department of Environmental Quality issued a Water Quality Certification, USFWS and National Marine Fisheries Service (NMFS) concluded that the proposed action would not adversely affect threatened or endangered species, and the Louisiana Department of Natural Resources found the proposed alternative to be consistent with the Louisiana Coastal Resource Program (USACE, 2009). Further, the USFWS provided a detailed list of recommendations as a part of their review under the Fish and Wildlife Coordination Act and the Corps conducted a Clean Water Act Section 404(b)(1) analysis (USACE, 2009, Appendices E and K).

All of the State and federal natural resource agencies have taken strong positions in support of preserving and protecting the wetland functions and values of the Bayou aux Carpes CWA Section 404(c) wetlands to the maximum extent practicable in light of the overwhelming public risks from storm-related flooding. At this point in the design of the West Closure Complex alternative and in consideration of the evaluation and design process established for the mitigation features, augmentation features, and long-term monitoring plan, none of these resource agencies have identified any unacceptable impacts to the Bayou aux Carpes CWA Section 404(c) wetlands.

In summary, the Corps and the interagency review team have worked for almost two years on ways to avoid and minimize impacts from the Bayou aux Carpes CWA Section 404(c) segment of the work proposed for IER # 12. The Corps is currently gathering baseline data for the team to use in evaluating potential wetland mitigation options and other project features that might improve the existing hydrology of the Bayou aux Carpes area. The Corps has committed to funding and constructing those additional features if the analyses indicate that they would be ecologically beneficial. Discharges of dredged or fill material associated with such construction would require no additional modification to the CWA Section 404(c) designation, which contains an exception for EPA approved habitat enhancement projects. Work is also underway to develop a long-term monitoring plan for the CWA Section 404(c) site.

Members of the public, as well as local and national environmental groups, have also demonstrated a fierce commitment over a period of decades to protecting the Bayou aux Carpes wetlands from unlawful or unnecessary adverse wetland impacts. This vigilance is evident in comments received during the public hearing on February 11, 2009, conducted as part of the EPA Region 6 review of the Corps' request to EPA to modify the 1985 Bayou aux Carpes CWA Section 404(c) designation (see Part II of this document). Many of those comments relate to concerns about the potential for unavoidable impacts to the wetlands and the need to appropriately mitigate and compensate for those losses. We believe that the plans outlined above, and documented by the Corps, adequately address those impacts.

Region 6 Recommendation

Section 404(c) of the CWA authorizes EPA to restrict or prohibit the use of a wetland area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. In over three decades since this authority has existed, EPA has finalized only 12 such CWA Section 404(c) actions. Together, those few actions have protected the ecologically significant functions and values of over 73,000 acres of wetlands.

This history shows that EPA has used its CWA 404(c) designation authority sparingly, typically reserving it for special circumstances and/or unique wetlands. Nationally, there have only been three instances in which a CWA Section 404(c) designation has been modified in response to unusual situations or changed conditions.

As explained above, EPA has previously determined that a request to repair a leaking pipeline within the Bayou aux Carpes CWA Section 404(c) site was acceptable for both environmental and safety considerations. In that case, EPA decided that the proposed

emergency action was essentially the same as that envisioned by one of the three exceptions written into the original CWA Section 404(c) restriction, that only minor and temporary impacts would result, that adverse wetland impacts were likely if the repairs were not made, and that appropriate mitigation measures would be employed. However, a previous request for modification of this designation by the Corps was denied and another alternative was implemented that did not affect the CWA Section 404(c) area. The Corps' justification for the current request is substantially different than justifications claimed for the flood control project that led to the1985 EPA designation (flood protection for a sparsely populated area dominated by wetlands) or for the subsequent work on the "V-Levee" (cost savings to the government).

The intent of the Corps' current request is to reduce risks to the 286,000 people living on the west bank of the Mississippi River and to infrastructure supporting the greater New Orleans area by building a more resilient and reliable storm damage and risk reduction system, as directed by Congress. In an effort to reconcile the potentially conflicting goals of increased flood protection and ecological protection, the Corps and EPA Region 6 have worked closely together and with other federal partners, State and local agencies, and many stakeholders in an effort to understand fully the possibilities for accommodating these serious needs. Seeing no acceptable option but to recommend flood control measures which would have minor adverse environmental impacts on the Bayou aux Carpes CWA Section 404(c) wetlands, the Corps has asked EPA to modify the 1985 CWA Section 404(c) determination to allow the construction of a berm and floodwall in an area disturbed by dredged material discharges predating the EPA designation.

The Corps proposal involves constructing an improved storm surge barrier system around the Bayou aux Carpes CWA Section 404(c) site, crossing the GIWW with a floodgate and pumping structure, and then tying into the existing Hero Canal federal levee (i.e., the West Closure Complex alternative). The Corps has determined that this alternative would provide the most reliable, time sensitive, and cost effective solution with the least environmental impact to the Bayou aux Carpes CWA Section 404(c) wetland site. This alternative represents a more streamlined surge barrier that reduces the number of potential failure points in the system. A critical lesson the Corps learned from Hurricane Katrina was that extensive reaches of levees, floodwalls, and floodgates provided numerous possible points of failure within the system. By removing 25 miles of parallel protection from the primary line of defense, this more streamlined surge barrier significantly reduces risks and increases resiliency of the system.

Having worked closely with the Corps and other resource agencies on the evaluation of the environmental aspects of this segment of the overall West Bank and Vicinity project upgrade, EPA Region 6 agrees with Corps' conclusion that there is no reasonable and less environmentally damaging structural alternative for achieving the Congressional directive than to locate a sector gate adjacent to the Bayou aux Carpes CWA Section 404(c) site. We therefore recommend that the requested modification be granted with conditions.

We believe this recommendation achieves a balance between the national interest in reducing overwhelming risks to the people and critical infrastructure of south Louisiana while minimizing damage to the Bayou aux Carpes CWA Section 404(c) site to the maximum degree possible. EPA has a long record of protecting these wetlands, dating back to the early 1970's and we do not believe that this recommendation, coupled with

EPA approved mitigation and site augmentation features, will result in significant or unacceptable impacts to the Bayou aux Carpes CWA Section 404(c) wetland site. The projected construction impacts will be limited in time and area, the unavoidable impacts will be appropriately mitigated, additional environmental augmentation features will be developed and implemented, and the site will be monitored and managed for any adverse changes for the life of the Corps project.

Further, we believe that the West Closure Complex construction plan, which would allow for adding additional height to the floodwall while working within the same footprint, will be amenable to any future needs for a greater level of protection without invoking a need for further modifications to the CWA Section 404(c) designation. However, the Corps does not currently envision the need for future "lifts" to the floodwall.

Because this is an extraordinary and unprecedented situation, we do not expect that this modification will have any bearing on any other CWA Section 404(c) designations or modification requests. Each CWA Section 404(c) designation represents a unique situation that responds to a specific set of parameters unlike any other.

In this case, EPA Region 6 concludes that compelling circumstances justify a modification of the Bayou aux Carpes CWA Section 404(c) designation, that there are no less environmentally damaging alternatives that would adequately address those circumstances, and that all feasible means of minimizing adverse wetland effects to the Bayou aux Carpes site will be implemented. As explained above, no measures compensating for unavoidable wetland impacts have yet been adopted but EPA Region 6 is confident that such measures can and will be adopted and implemented by the Corps. Therefore, EPA Region 6 recommends the Acting Assistant Administrator for Water grant the Corps' modification request for constructing the West Closure Complex, subject to the conditions specified below.

Conditions

Project Design and Construction

1. During final project design, the New Orleans District of the Corps shall utilize all feasible engineering and construction practices to reduce impacts to the Bayou aux Carpes CWA Section 404(c) wetlands.

2. During project construction, the New Orleans District of the Corps shall comply with the conservation recommendations as specified in the "Fish and Wildlife Coordination Act Report, Individual Environmental Report (IER) 12, Harvey to Algiers" (February 18, 2009), or as they may be amended by the USFWS, Ecological Service, Lafayette.

Mitigation Features

1. The New Orleans District of the Corps shall fully fund and implement mitigation measures to compensate for the unavoidable adverse impacts of the project. EPA Region 6 will make the final determination as to whether compensation is adequate, appropriate, and satisfactorily implemented in a timely manner.

2. The New Orleans District of the Corps shall obtain written approval from EPA Region 6, after consulting with the GNOHSDRRS interagency review team, prior to implementing any mitigation feature. At a minimum, the Corps shall document for EPA Region 6 the concurrence or non-concurrence on each mitigation feature by the NPS (Jean Lafitte National Historical Park and Preserve), USFWS, NMFS, USGS, Louisiana Department of Natural Resources, Louisiana Department of Environmental Quality, and Louisiana Department of Wildlife and Fisheries.

3. The Corps shall be responsible for obtaining all necessary permits and conducting all required regulatory coordination and approvals prior to implementing any mitigation feature. The Corps shall coordinate with the Jean Lafitte National Historical Park and Preserve to determine the appropriate lead agency for conducting the interagency coordination and approval processes and shall obtain all necessary National Park Service permits.

Augmentation Features

1. The New Orleans District of the Corps shall fully fund and implement augmentation features to enhance the wetland functions and values of the site. EPA Region 6 will make the final determination as to whether such features are adequate, appropriate, and satisfactorily implemented in a timely manner.

2. The New Orleans District of the Corps shall obtain written approval from EPA Region 6, after consulting with the GNOHSDRRS interagency review team, prior to implementing any augmentation feature. At a minimum, the Corps shall document for EPA Region 6 the concurrence or non-concurrence on each augmentation feature by the NPS (Jean Lafitte National Historical Park and Preserve), USFWS, NMFS, USGS, Louisiana Department of Natural Resources, Louisiana Department of Environmental Quality, and Louisiana Department of Wildlife and Fisheries.

3. The Corps shall be responsible for obtaining all necessary permits and conducting all required regulatory coordination and approvals prior to implementing any augmentation feature. The Corps shall coordinate with the Jean Lafitte National Historical Park and Preserve to determine the appropriate lead agency for conducting the interagency coordination and approval processes and shall obtain all necessary National Park Service permits.

Long-term Monitoring and Operation

1. The New Orleans District of the Corps shall coordinate the development of a long-term site monitoring plan, to be approved in writing by EPA Region 6, after consulting with the GNOHSDRRS interagency review team.

2. The New Orleans District of the Corps and EPA Region 6 shall develop and sign a Memorandum of Agreement with those willing and active State, federal, and local participants with natural resource management missions who have participated on the IER # 12 interagency review team. The Memorandum of Agreement shall document the commitment to participate in the planning and analyses specified by the long-term monitoring plan.

3. The New Orleans District of the Corps shall obtain written approval from EPA Region 6, after consulting with the GNOHSDRRS interagency review team, prior to implementing the long-term monitoring plan. At a minimum, the Corps shall document for EPA Region 6 the concurrence or non-concurrence on the long-term monitoring plan by the NPS (Jean Lafitte National Historical Park and Preserve), USFWS, NMFS, USGS, Louisiana Department of Natural Resources, Louisiana Department of Environmental Quality, and Louisiana Department of Wildlife and Fisheries.

4. The New Orleans District of the Corps shall be responsible for ensuring full funding and implementation of a long-term site monitoring plan, to extend throughout the 50-year of the Corps project.

5. The New Orleans District of the Corps shall provide EPA Region 6 with digital aerial photography of the site (season and flood stage to be determined jointly) prior to constructing the floodwall along the perimeter of the site and annually for the first five years after its construction, and at other times as specified by EPA Region 6.

6. The New Orleans District of the Corps shall gather the monitoring data and report results to EPA Region 6 annually, on a schedule to be specified by EPA Region 6, each year for the first five years, and at other times as specified by EPA Region 6.

7. Throughout the 50-year life of the project, the New Orleans District of the Corps shall institute any necessary adaptive construction modifications, including removal or repair, of any mitigation or augmentation feature based on the recommendations of EPA Region 6.

8. In the event that EPA determines during the life of the project that operation, maintenance, or long-term management by the Corps of the flood protection/risk reduction features, mitigation features, or augmentation features is causing unanticipated and unacceptable wetland impacts, EPA may modify the terms of these conditions.

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Part I, Appendix A

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2008–0650; FRL–8398–6]

Petition for Rulemaking Requesting EPA Regulate Nanoscale Silver Products as Pesticides; Extension of Comment Period

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; extension of comment period.

SUMMARY: EPA issued a notice in the **Federal Register** of November 19, 2008, concerning a petition for rulemaking and collateral relief filed by the International Center for Technology Assessment (ICTA) and others. In general, the petition requests that the Agency classify nanoscale silver as a pesticide, require formal pesticide registration of all products containing nanoscale silver, analyze the potential human health and environmental risks of nanoscale silver, take regulatory actions under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) against existing products that contain nanoscale silver, and take other regulatory actions under FIFRA as appropriate for nanoscale silver products. This document extends the comment period for 60 days from January 20, 2009 to March 20, 2009.

DATES: Comments, identified by docket identification (ID) number EPA–HQ–OPP–2008–0650, must be received on or before March 20, 2009.

ADDRESSES: Follow the detailed instructions as provided under **ADDRESSES** in the **Federal Register** document of November 19, 2008 (73 FR 69644).

FOR FURTHER INFORMATION CONTACT: Nathanael R. Martin, Field and External Affairs Division (7506P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: 703-305-6475; e-mail address: *martin.nathanael@epa.gov*.

SUPPLEMENTARY INFORMATION: This document extends the public comment period established in a notice that was published in the **Federal Register** of November 19, 2008 (73 FR 69644) (FRL–8386–4). In that document, the Agency made the petition submitted by ICTA et al., available for review and asked for public comment on the same. On December 12, 2008, EPA received a request from ICTA to extend the comment period on the petition. EPA is hereby extending the comment period, which was set to end on January 20, 2009, to March 20, 2009.

To submit comments, or access the public docket, please follow the detailed instructions as provided under **ADDRESSES** in the November 19, 2008 **Federal Register** document. If you have questions, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

List of Subjects

Environmental protection, Nanotechnology, Pesticides and pests.

Dated: January 8, 2009.

Martha Monell,

Acting Director, Office of Pesticide Programs.

[FR Doc. E9–622 Filed 1–13–09; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[FRL–8762–2]

Request for Amendment of Designation Prohibiting Discharges of Dredged or Fill Material to the Bayou aux Carpes Clean Water Act Section 404(c) Site, Louisiana

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Public Hearing and Request for Comments.

SUMMARY: In 1985, EPA prohibited the discharge of dredged or fill material to wetlands in the Bayou aux Carpes Swamp pursuant to Section 404(c) of the Clean Water Act (CWA). On November 4, 2008, the New Orleans District of the U.S. Army Corps of Engineers (Corps) requested that EPA modify that designation to accommodate discharges to the Bayou aux Carpes wetlands associated with post-Katrina upgrades to the West Bank and Vicinity Hurricane Protection Levee system in Jefferson Parish, Louisiana. EPA solicits written public comment on that request and will hold a public hearing for receipt of comments.

Public Hearing: The public hearing will be held in the District Assembly Room at the U.S. Army Corps of Engineers New Orleans District office, 7400 Leake Avenue, New Orleans, LA 70118. The public hearing will commence at 6 p.m. on February 11, 2009, and will end when all comments have been received. During the hearing, any member of the public may submit written comments or present comments verbally.

Public Comments: In addition to providing comments at the public hearing, written comments on the CWA Section 404(c) modification request may be submitted to EPA for 30 days following the date of this notice. Comments should be addressed to Ms. Barbara Keeler (6WQ–EC), EPA Region 6, 1445 Ross Avenue, Dallas, TX 75202–2733. All comments should directly address whether the 1985 Bayou aux Carpes CWA Section 404(c) EPA Final Determination should be modified as requested by the Corps.

FOR FURTHER INFORMATION CONTACT: For information regarding this matter, contact Ms. Barbara Keeler by phone at (214) 665–6698 or by e-mail at *keeler.barbara@epa.gov*. Copies of the modification request and supporting documentation are available online at: *http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/ModificationLetterToEPA4Oct08.pdf*. Additional project information may be found at: *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12*.

SUPPLEMENTARY INFORMATION: The Bayou aux Carpes CWA Section 404(c) site is located approximately ten miles south of New Orleans, Louisiana, on the West Bank of Jefferson Parish. The site covers approximately 3200 acres, including about 3000 acres of wetlands subject to federal jurisdiction under the CWA. The area is bounded on the north by the east-west Old Estelle Pumping Station Outfall Canal, on the east by Bayou Barataria (Gulf Intracoastal Waterway), on the south by Bayou Barataria and Bayou des Familles, and on the west by State Highway 3134 and the ''V-Levee.'' Immediately across State Highway 3134 to the west of the site is the Barataria Unit of Jean Lafitte National Historical Park and Preserve.

Section 404(c) of the CWA authorizes EPA to restrict or prohibit the use of a wetland area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. EPA published a CWA Section 404(c) Final Determination prohibiting, with three exceptions, future discharges of dredged or fill material to wetlands in the Bayou aux Carpes site at 50 FR 47267 (November 15, 1985). Since then, the Agency has received two other requests for modification.

In connection with initial construction of the West Bank Hurricane Protection Levee, the Corps requested that EPA modify its CWA Section 404(c) designation to allow extension of the toe of the ''V-Levee''

into the protected Bayou aux Carpes area. The Corps stated that such a modification would result in significant cost savings to the government and would affect only a relatively small part of the area protected by the Section 404(c) designation. EPA summarily denied that request and in 1988 the Corps modified the levee alignment to avoid discharges to the Bayou aux Carpes CWA Section 404(c) area.

In 1992, Shell Pipeline Corporation requested that EPA amend the designation to allow the discharge of dredged and fill material to wetlands in the Bayou aux Carpes CWA Section 404(c) area in connection with emergency reconstruction of a leaking pipeline. After notifying interested parties of the request via **Federal Register** publication and coordinating with the Corps and other agencies, EPA granted the request, publishing the decision at 57 FR 3757 (January 31, 1992). EPA concluded that relocating the pipeline to non-wetlands was infeasible from the perspectives of engineering and public safety, and that the work would have only minimal and temporary effects on the wetlands at issue.

The request noticed today was submitted by the Corps and is associated with proposed improvements to the West Bank and Vicinity Hurricane Protection Levee system. By way of a letter dated November 8, 2008, the Corps requested that the designation be modified to allow construction of an earthen berm and floodwall in an area disturbed by dredged material discharges predating the 1985 404(c) designation. The construction area is located along the west bank of the Gulf Intracoastal Waterway, or Bayou Barataria, from its junction with the Old Estelle Pumping Station Outfall Canal to a point at which the Corps proposes to construct a sector gate across the Waterway. As described in the modification request, the berm and floodwall would be 14 to 16 feet high and would occupy an area no greater than 4,200 linear feet by 100 linear feet. No more than ten acres of wetlands in the Bayou aux Carpes CWA Section 404(c) site would be affected and other design and construction features have been incorporated to minimize impacts to the wetlands.

The Corps is currently gathering baseline data to evaluate potential wetland mitigation options and other project features to improve the existing hydrology of the Bayou aux Carpes site. The Corps has committed to constructing those features if the analyses indicate that they would be ecologically beneficial. Discharges of dredged or fill material associated with such construction would require no additional modification to the CWA Section 404(c) designation, which contains an exception for approved habitat enhancement projects.

Additional information on the Corps project and its relationship to the Bayou aux Carpes site may be found in the alternative National Environmental Policy Act document, known as Individual Environmental Report #12 (IER #12), which is posted online at: *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12*.

The public hearing referenced above will be jointly conducted by EPA Region 6 and the Corps. At the hearing, EPA will receive comments on the Corps request to EPA to modify the Bayou aux Carpes CWA Section 404(c) designation and the Corps will receive comments on IER #12.

After considering all comments submitted, EPA Region 6 will transmit to the EPA Office of Water in Washington, DC, a written recommendation on whether the CWA Section 404(c) modification request should be granted or denied. The Assistant Administrator for Water will make the final decision and publish a notice of its availability in the **Federal Register**.

Dated: January 6, 2009.

Richard E. Greene,

Regional Administrator, EPA Region 6.

[FR Doc. E9–690 Filed 1–13–09; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission for Extension Under Delegated Authority, Comments Requested

January 8, 2009.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act (PRA) of 1995, 44 U.S.C. 3501–3520. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Written Paperwork Reduction Act (PRA) comments should be submitted on or before March 16, 2009. If you anticipate that you will be submitting PRA comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the FCC contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, Office of Management and Budget, (202) 395–5887, or via fax at 202–395–5167 or via Internet at *Nicholas_A._Fraser@omb.eop.gov* and to *Judith-B.Herman@fcc.gov*, Federal Communications Commission, or an e-mail to *PRA@fcc.gov*. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the Web page *http://www.reginfo.gov/public/do/PRAMain*, (2) look for the section of the Web page called ''Currently Under Review'', (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, and (6) when the list of FCC ICRs currently under review appears, look for the title of this ICR (or its OMB Control Number, if there is one) and then click on the ICR Reference Number to view detailed information about this ICR.

FOR FURTHER INFORMATION CONTACT: For additional information, contact Judith B. Herman at 202–418–0214 or via the Internet at *Judith-B.Herman@fcc.gov*.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0755.

Title: Sections 59.1 through 59.4, Infrastructure Sharing.

Form No.: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit.

Part I, Appendix B

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

NOV 04 2008

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

Mr. Lawrence E. Starfield
Deputy Regional Administrator
Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Starfield:

The purpose of this letter is to request modification of the Environmental Protection Agency (EPA) Bayou aux Carpes 404 (c) Final Determination issued October 16, 1985. The US Army Corps of Engineers (Corps) requests that the EPA consider approving a modification that would allow the Corps to construct a segment of the West Bank and Vicinity Hurricane Protection Project / Hurricane and Storm Damage Risk Reduction System (HSDRRS) along the northeastern property boundary. The intent of the Corps proposed action is to reduce risk to the citizens of Greater New Orleans Metropolitan area by building a more resilient and reliable storm damage and risk reduction system. We can accomplish this by constructing an improved storm surge barrier system around the Bayou aux Carpes site, crossing the Gulf Intracoastal Waterway (GIWW) with a floodgate(s)/pumping station structure, and then tying into the existing Hero Canal Federal levee (GIWW West Closure Complex (GIWW WCC) alternative, see enclosed map and floodwall cross section).

The Corps has been working closely with EPA and other federal and state resource agency staff for several months to come up with the least environmentally damaging alternative that lowers the risk of storm surge damage to the greatest number of people in the area. It is our determination that the proposed action, GIWW WCC is the best alternative to provide the greatest level of risk reduction while minimizing environmental impacts. The Corps intends to make a final decision in the upcoming months concerning this project by circulating a draft of Individual Environmental Report (IER) # 12 and a Clean Water Act Section 404 (b) (1) public notice for a 30-day public comment period. Upon completion of the 30-day comment period, the Corps will review all comments received along with the data and analysis discussed in the IER in order to make a decision on the proposed action. The Corps will not make a decision on this portion of the proposed action until the EPA makes a determination on a modification to the Bayou aux Carpes 404 (c).

The proposed alternative would require the construction of a floodwall and earthen berm along the eastern boundary of the 404 (c) site. To construct this alternative the Corps would need to impact an area within the 404 (c) area no greater then 4,200 LF by 100 LF. This action would impact no greater then 9.6 acres along the west bank of the GIWW within the Bayou aux Carpes 404 (c) area. Please refer to the enclosed documentation that describes in detail the:

a. Need to modify the original HSDRRS alignment;

b. Need to modify the Bayou aux Carpes 404 (c) Final Determination;

c. Measures taken to ensure the avoidance and/or minimization of all adverse impacts to the Bayou aux Carpes 404 (c) area;

d. Planning and design considerations to avoid additional impacts from any reasonable foreseeable future flood protection measures (i.e., the Louisiana Coastal Protection and Restoration (LACPR) Study);

e. Plans for adequate site specific mitigation for all unavoidable adverse impacts to the Bayou aux Carpes 404 (c) area;

f. Review of projected wetland impacts as per Corps 404 (b)(1) guidelines and the EPA 404 (b)(1) and 404 (c) procedures found in 40 CFR Parts 230 & 231; and

g. Draft Path Forward with GIWW WCC.

Summarizing the above attachments: The Corps has determined that the GIWW WCC alternative, which alters the current system alignment, is the government's proposed action for this segment of the HSDRRS because this alternative would provide the most reliable, time sensitive and cost effective solution with the least adverse environmental impacts. Though this alternative would impact the Bayou aux Carpes 404 (c) area, the Corps agrees that final design efforts would utilize all feasible engineering and construction practices to reduce impacts to these nationally significant wetlands. In order to minimize the footprint of the surge barrier component to no greater than 4,200 LF by 100 LF along the western side of the GIWW within the Bayou aux Carpes 404 (c) area, the Corps agrees to investigate and utilize innovative techniques to design and build a structure that incorporates a floodwall and earthen berm rather than an earthen levee. The Corps would also locate the GIWW floodgate(s) as close to the Harvey and Algiers Canals confluence as engineeringly feasible in order to minimize impacts to the 404 (c) area. To further ensure the minimization of adverse impacts within the 404 (c) area, construction of the floodwall and earthen berm / access road would occur from the GIWW side of the construction area. In addition, project feature augmentations, such as allowing Old Estelle effluent into the 404 (c) area by gapping the spoil bank and removing the shell plug at Bayou aux Carpes, are being studied and would be incorporated as project features if the results of the

environmental studies demonstrate that this proposed action would augment the Corps actions to minimize effects to the 404 (c) wetland habitat. Additional project feature augmentations, such as the gapping of other canal banks in the 404 (c) area are also being studied and would be incorporated into the project if it is found that the features further minimize impacts as a result of the Corps proposed action. The Corps agrees that mitigation for all unavoidable adverse impacts to the Bayou aux Carpes 404 (c) area would occur within the Bayou aux Carpes 404 (c) area and/or Jean Lafitte National and Historical Park. Mitigation projects would be designed and implemented concurrently with the design and construction of the floodwall and earthen berm / access road. Full mitigation within this unique environment may require mitigation in addition to acres indicated by the Wetland Value Assessment. The Corps further agrees to work in collaboration with the interagency team to monitor the area to ensure mitigation is successful in reaching its targeted goal and to utilize adaptive management efforts to ensure the project feature augmentations are assisting to minimize adverse impact within the 404 (c) area. The total funding required for the entire HSDRRS, $16.8 billion, has been appropriated by Congress. This funding includes funds for the design and construction of all HSDRRS mitigation measures. The Corps would ensure that all impacts due to upgrading structures currently outlining the Bayou aux Carpes 404 (c) area would occur on the protected side and would not impact the 404 (c) area. Lastly, the GIWW WCC proposed action, would have the greatest adaptability to accommodate an enlargement associated with future system upgrades, i.e., LACPR.

We recognize the significance of this request and greatly appreciate the cooperation the EPA has shown in working with the Corps in our efforts to construct the most reliable hurricane risk reduction system possible.

If you have any questions or concerns please contact Mr. Gib Owen by E-mail: gib.a.owen@usace.army.mil or by phone at (504) 862-1337.

Sincerely,

Alvin B. Lee

Alvin B. Lee
Colonel, US Army
District Commander

Enclosure

See page 4 for list of copies furnished.

Mr. Garret Graves
Chairman
Coastal Protection and Restoration
Authority of Louisiana
1051 North 3rd Street
Capitol Annex Building
Baton Rouge, Louisiana 70802

Mr. James McMenis
LA Office of Coastal Protection
8900 Jimmy Wedell Road
Baton Rouge, Louisiana 70807

Mr. David Bindewald
President
Southeast Louisiana Flood
Protection Authority - West Bank
7001 River Road
Marrero, Louisiana 70072

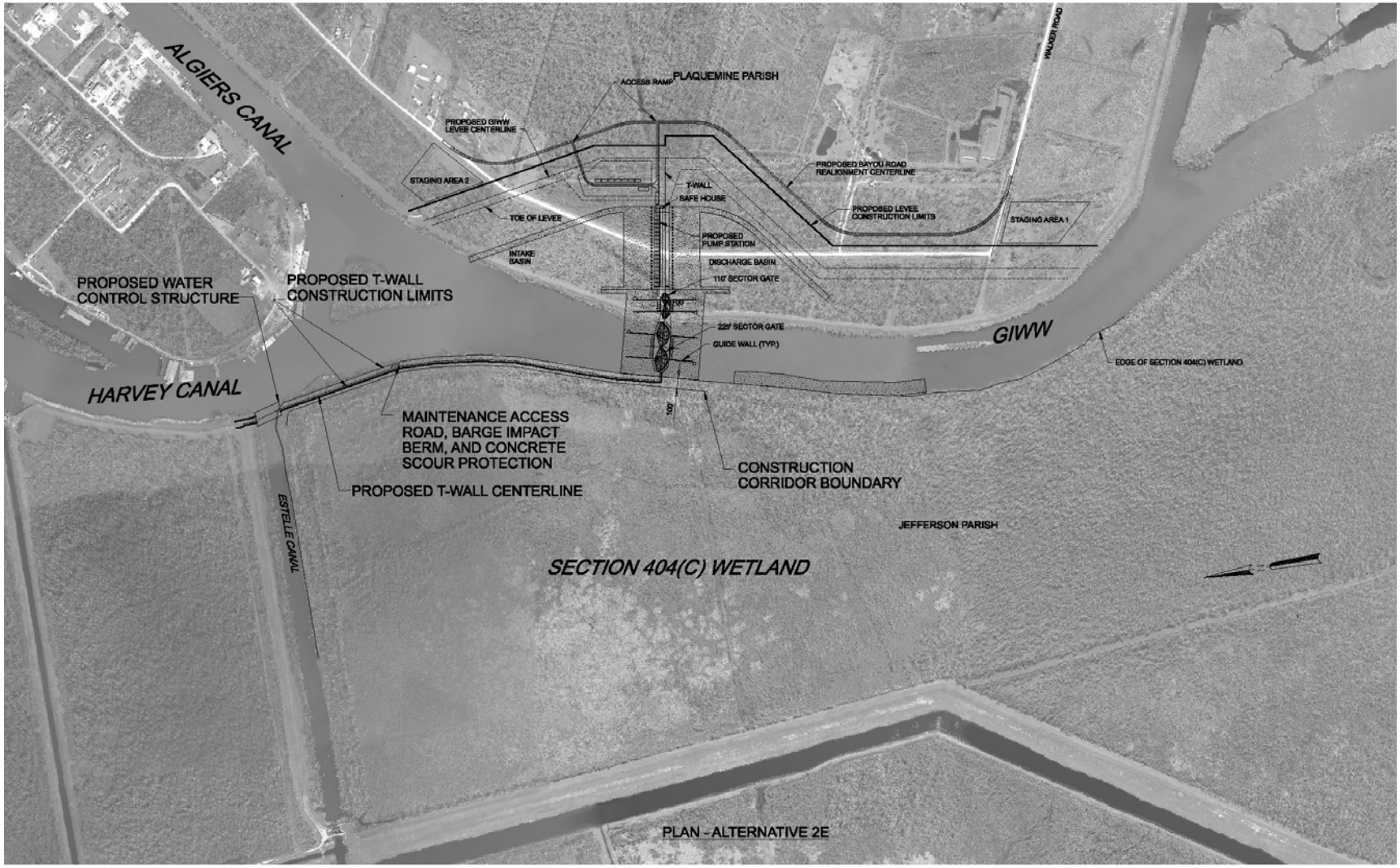
Mr. Jerry Spohrer
Executive Director
West Jeff Levee District
7001 River Road
Marrero, Louisiana 70072

Honorable Billy Nungesser
Plaquemines Parish President
8056 Highway 23, Suite 200
Belle Chasse, Louisiana 70037

Mr. David Luchsinger
Park Superintendent
Jean Laffite National Historic Park and Preserve
419 Decatur Street
New Orleans, Louisiana 70130-1035

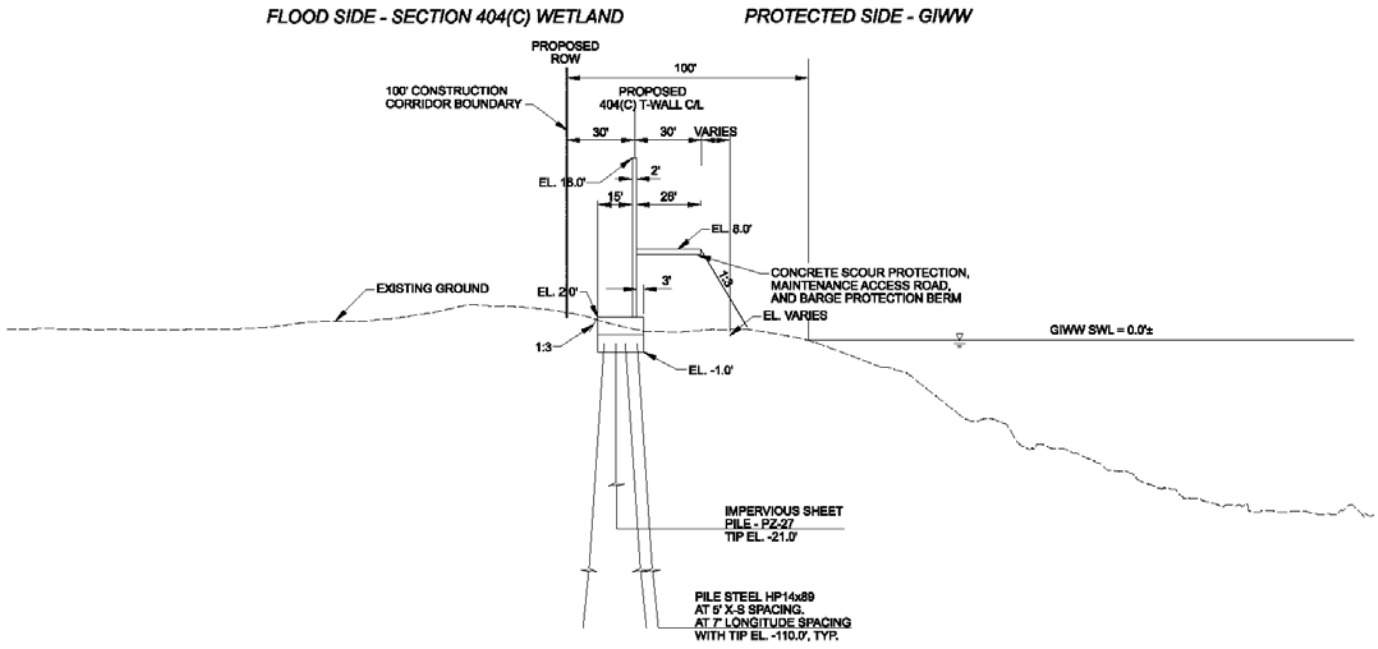
CURRENT PROPOSED SITE PLAN

- LOCATION OF STRUCTURES WITHIN 404(C) AREA WOULD REMAIN AS SHOWN. MAXIMUM AREA OF IMPACT WOULD BE 100' WIDE BY 4200' LONG (9.6 acres).
- ORIENTATION OF PUMP STATION, GATE(S), BYPASS CHANNEL AND LEVEE ON EAST SIDE OF GIWW ARE NOT FINAL AND COULD CHANGE AS DESIGN PROGRESSES.



TYPICAL PROPOSED 404(C) WALL SECTION

(FINAL DESIGN WOULD BE COMPLETED IN PARTNERSHIP WITH EPA AND NPS)



T-WALL C/L STA. 0+00 TO 37+76
T-WALL C/L STA. 40+30 TO 42+40
N.T.S.

SECTION 404(C) WETLAND T-WALL TYPICAL SECTION
ALTERNATIVE 2E

a) The need to modify the current hurricane system alignment.

The US Army Corps of Engineers (Corps) has been studying the current HSDRRS alignment, and based upon factors associated with system reliability has determined that in order to provide the greatest risk reduction, certain segments of the system must follow an improved alignment. The proposed new alignment for this project, GIWW WCC alternative, would significantly reduce risk to nearly 286,000 people living on the West bank of the Mississippi River. By removing 27 miles of parallel protection from the primary line of defense, this more streamlined surge barrier reduces the number of potential failure points in the system, increases quality control and certainty of subsurface conditions during construction, and minimizes human impacts since the existing footprint of the current system would not be widened to 100 year level of protection (LOP). This is a critical lesson learned from Hurricane Katrina in 2005. Catastrophic failure due to breaching along the 17th Street and London Avenue Outfall canals and the Inner Harbor Navigational Canal (IHNC) occurred because expanses of parallel protection were an inadequate risk reduction measure for such complex and challenging environments (USACE 2008). The structures may have been designed and constructed properly; however, there was an overall failure to incorporate new technologies and new risk reduction measures into the previous risk reduction system (USACE 2008). Hurricane Katrina brought many issues to the forefront. A major issue that surfaced was extensive reaches of levee, floodwall and floodgates provide numerous possible points of failure within the system and reduce the ability to maintain strict quality control. Hurricane Katrina also demonstrated that structures need to be resilient and must be constructed with the ability to reduce risk while withstanding system overtopping. The structures must still hold back the majority of the storm front, while some water may overtop the structure. In addition, having multiple lines of defense, such as a second barrier behind the initial surge barrier, i.e., the existing line of defense at pre Katrina authorized elevations, would even further ensure risk reduction within an area.

The Corps Project Delivery Team (PDT) identified all possible alignments in the area. All the alternatives were then evaluated according to various criteria, and all non-reasonable alternatives, i.e., those alternatives with overwhelming engineering challenges, were eliminated. In general, assessing all possible alignments demonstrated two things: system reliability increases as the actual length of the surge barrier decreases (deeming a further south, more streamlined alignment as most reliable) and this further southern alignment, which offers the most system reliability and protection, proposes to impact the Bayou aux Carpes 404 (c) area. There were five surviving alternatives brought forward from a preliminary alternative evaluation process conducted in early 2007. Two of those five alternatives were further analyzed and then eliminated due to non-constructability. The three surviving alternatives were then brought forward and further evaluated according to system reliability, environmental impacts, schedule and cost. These three surviving alternatives and the evaluation process were presented to EPA staff along with other Federal and state resource agencies to solicit input. In collaboration with the EPA and NPS, the Corps PDT revisited a previous alternative from the original proposed southern alignment that would maintain system reliability and additionally would minimize adverse environmental impacts. This fourth alternative was

evaluated against the same four criteria, was presented to the Federal and state resource agencies and local stakeholders, and was brought forward as the government's proposed action. Listed below are the proposed action and three other alternatives.

The Proposed Action - The GIWW WCC alternative would consist of the Corps along with its non-Federal partner, the State of Louisiana, constructing a floodwall and earthen / concrete barrier with an access road around the northern portion of the Bayou aux Carpes 404 (c) area. The barrier would run from the v-line levee situated west of the Bayou aux Carpes 404 (c) area to the Old Estelle pump station, west to east along the northern bank of the Old Estelle discharge canal, down the western bank of the GIWW within the Bayou aux Carpes 404 (c) area to a point where the alignment would cross the GIWW to the east bank to tie in with a levee being planned for construction along the northern side of the Hero Canal (see proposed action schematic below). Previously existing levee structures would be upgraded and/or replaced with floodwall to 14' / 16', the height specified for 100 year LOP, while a new floodwall with an earthen berm would be constructed along the western bank of the GIWW within the Bayou aux Carpes 404 (c) area. The new floodwall and earthen berm within the Bayou aux Carpes 404 (c) area would be no greater then 4,200 linear feet (LF) in length, no greater than 100 LF in width and 16' in height. Other features of the system include a navigation gate(s) system at the GIWW that would be 150 to 350 foot wide to allow for navigation and current reduction. Storm gates would be built to an elevation of 16'. The pump station would have a capacity between 20,000 and 25,000 cubic feet per second (cfs) to accommodate existing storm water discharges from the local parishes' drainage system. A by-pass channel would be built on the east bank of the GIWW to allow navigation on the GIWW during construction of the permanent gate structure. The existing Enterprise Gas pipeline would be relocated by directional drilling a new pipeline under the proposed bypass channel, the GIWW and the 404 (c) area. By directional drilling the pipeline under the 404 (c) area, the Corps not only avoids impacts to the area, but minimizes future impacts associated with maintaining the pipeline right-of-way across the area. These engineering specifics are the most current but are only preliminary and cannot be finalized without further investigation. Soil borings from the Bayou aux Carpes 404 (c) area are required to gather geotechnical specifics and give an indication of the actual floodwall and earthen berm footprint. The Corps submitted a letter on August 12, 2008 to EPA Region 6 and NPS requesting right-of-entry (ROE) within the Bayou aux Carpes 404 (c) area to conduct field surveys and obtain soil borings. Both the EPA and NPS responded quickly to the request granting ROE to begin the necessary data collection. The clearing to obtain boring samples occurred on October 6, 2008.

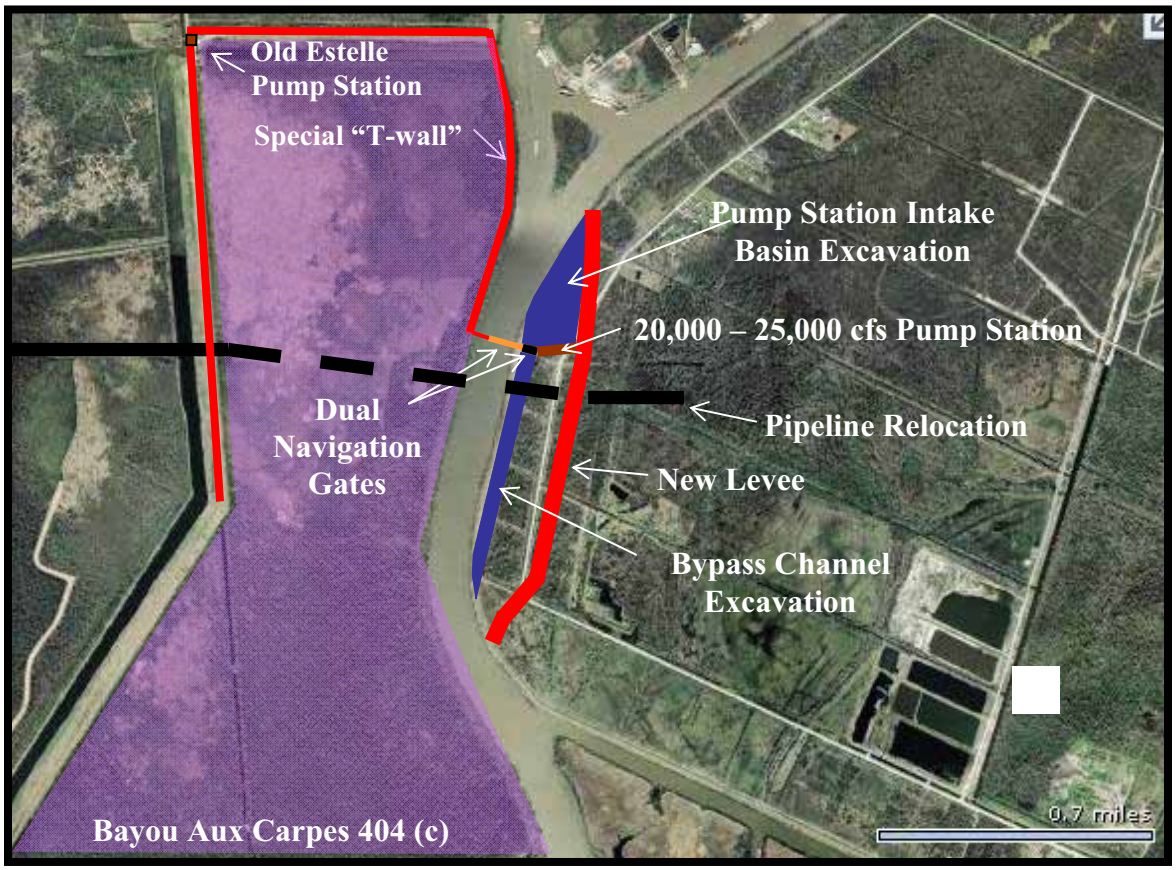


Figure1. Conceptual GIWW West Closure Complex alternative schematic.

When the GIWW WCC alternative was evaluated with respect to system reliability, adverse environmental impacts, time and cost, it was determined the construction of this alternative alignment would dramatically increase system reliability. This proposed action reduces the primary line of defense by 36% and would be comparable in system reliability to GIWW A alternative, the other southern alignment, but would be much more reliable than the Algiers Gate or Parallel Protection alternatives (see alternative descriptions below). The GIWW WCC alternative would have the fewest adverse environmental impacts. Even though proposing to impact the Bayou aux Carpes 404 (c) area, this proposed alignment would minimize all direct and indirect adverse impacts to both the natural and human environments (see item 3 below). In addition, the proposed action would have a surge barrier in place, with reduced pumping capacity, by 2011, and would be more economical to construct than the AG or PP alternatives. See the alternative comparison tables below for specific details on system reliability, environment and schedule.

The GIWW A alternative is similar to the proposed action described above, but utilizes different levee and floodwall alignments. A navigable floodgate would be constructed in the GIWW approximately 1 mile south of the confluence of the Harvey and Algiers canals. The details regarding the navigable floodgate are identical to those described for the proposed action (GIWW WCC). The overall structure would include the floodgates,

pumping station, and by-pass channel as previously described. A new 3,000-foot long tidal exchange structure would be constructed west of the navigable floodgate across the EPA Bayou aux Carpes 404 (c) area to the V-Line Levee. The tidal exchange structure floodwall would be designed to utilize the smallest construction footprint possible to minimize environmental impacts. Gates in the wall would be constructed at specified locations in an effort to maintain the natural hydrology of the area. The floodwall would also be designed to facilitate the passage of wildlife. The navigable floodgate and tidal exchange structure would be constructed to the 100-year LOP 16'. The specific tie-in locations of the GIWW A alternative to other HSDRRS (IER #13 and #14) project elements would provide 100-year LOP to the study area without raising the parallel protection above that currently authorized along the Harvey and Algiers Canal Reaches.

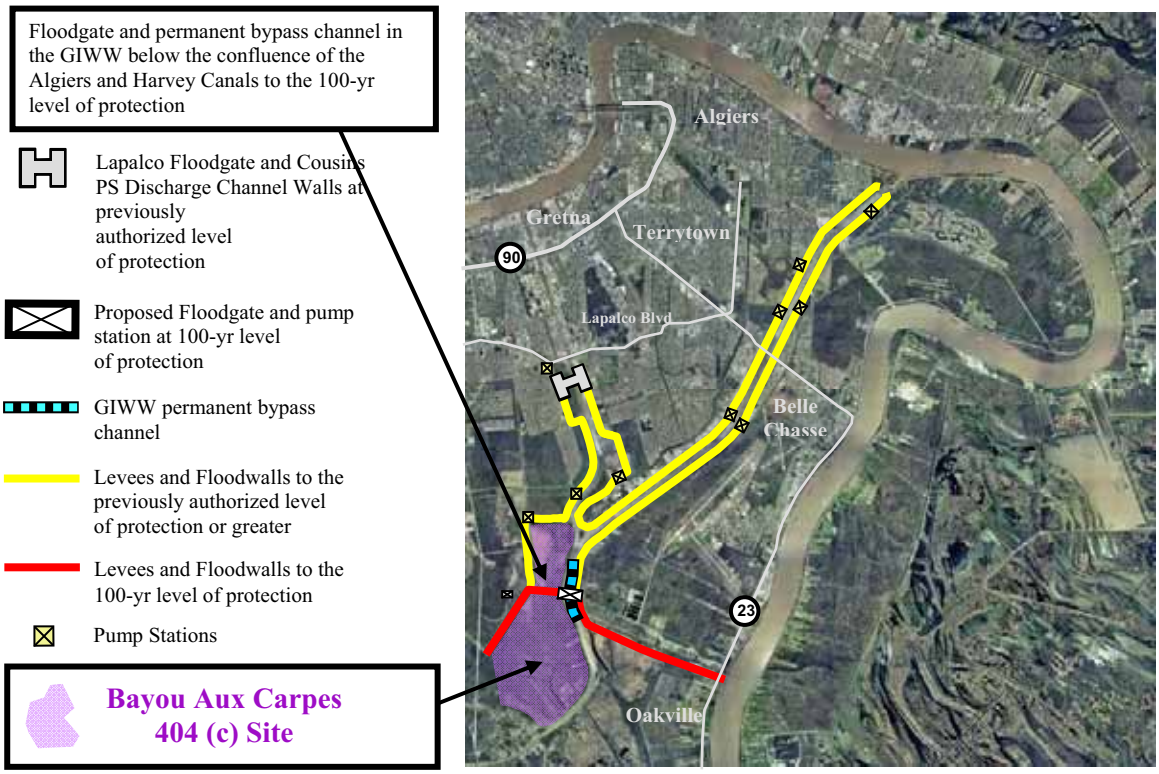


Figure 2. Conceptual GIWW A alternative schematic.

When the GIWW A alternative was evaluated with respect to system reliability, adverse environmental impacts, time and cost, the GIWW A alternative had comparable system reliability, schedule and cost to the proposed action (GIWW WCC); however, the adverse environmental impacts for the GIWW A alternative would be much greater than the proposed action. Though both alternatives would impact the Bayou aux Carpes 404 (c) area, the tidal exchange structure floodwall in GIWW A proposes to bifurcate the Bayou aux Carpes 404 (c) area and would result in irreparable direct and indirect impacts to the unique area (i.e., potential degradation or loss of flotant marsh located in the northern region of the 404 (c) area). In addition, this GIWW A alternative could preclude the possibility of including a portion of the Bayou aux Carpes 404 (c) area in the adjacent

Jean Lafitte National and Historical Park, where as the proposed action would create a more manageable situation for the NPS. While the GIWW WCC alternative also proposes a floodwall structure within the 404 (c) area, construction would be confined to a narrow footprint within a previously disturbed spoil bank along the west bank of the GIWW. The GIWW A alternative would also have a surge barrier in place, with reduced pumping capacity, by 2011, and would be much more economic to construct than the AG or PP alternatives. See the alternative comparison tables below for specific details on system reliability, environment and schedule.

The Algiers Gate alternative would require the construction of a navigable floodgate located on the Algiers Canal and major levee and floodwall improvements along the Harvey Canal, GIWW, and V-Line Levee. The AG alternative would include a 150-foot to 300-foot navigable floodgate located on the Algiers Canal, just above the confluence with the Harvey Canal. This navigable floodgate would require a permanent pumping station (approximately 20,000 cfs) adjacent to the gate, providing 100-year LOP along the Algiers Canal. Levee extending from the gate and pump station would need to be raised to 100-year LOP (14.0 feet). These improvements would tie into additional levee and floodwall improvements within the GIWW and Harvey Canal Reaches. Levees and floodwalls would be raised to 14.0 feet along both banks of the Harvey Canal, sections of the GIWW, and sections of the V-Line Levee. Levee improvements would specifically occur in two main locations. Existing levee on the eastern side of the GIWW would be raised from the navigable floodgate on the Algiers Canal to the Hero Canal Levee. In addition, existing levee on the west bank of the Harvey Canal would be raised from Lapalco Blvd. to the Estelle Pump Station Outfall Canal, west to the Estelle Pump Station, and continuing south along the V-Line Levee. Floodwall would be built to 14.0 feet on the east bank of the Harvey Canal from Lapalco Blvd. south to the GIWW. Floodwall would be used in this area in order to minimize impacts to existing development. These floodwall improvements along the Harvey Canal are currently being constructed under previous authorization. The proposed levee and floodwall improvements would require major modifications to the Harvey Canal Floodgate at Lapalco Blvd. and the Cousins Pump Station discharge channel. Fronting protection to the 100-year LOP would also be required at the Cousins Pump Station and all pump stations south of Lapalco Boulevard on the Harvey Canal, to prevent inundation of the existing pumps. These additional improvements would provide the desired 100-year LOP in coordination with levee tie-ins to additional HSDRRS projects (IER #13 and #14).

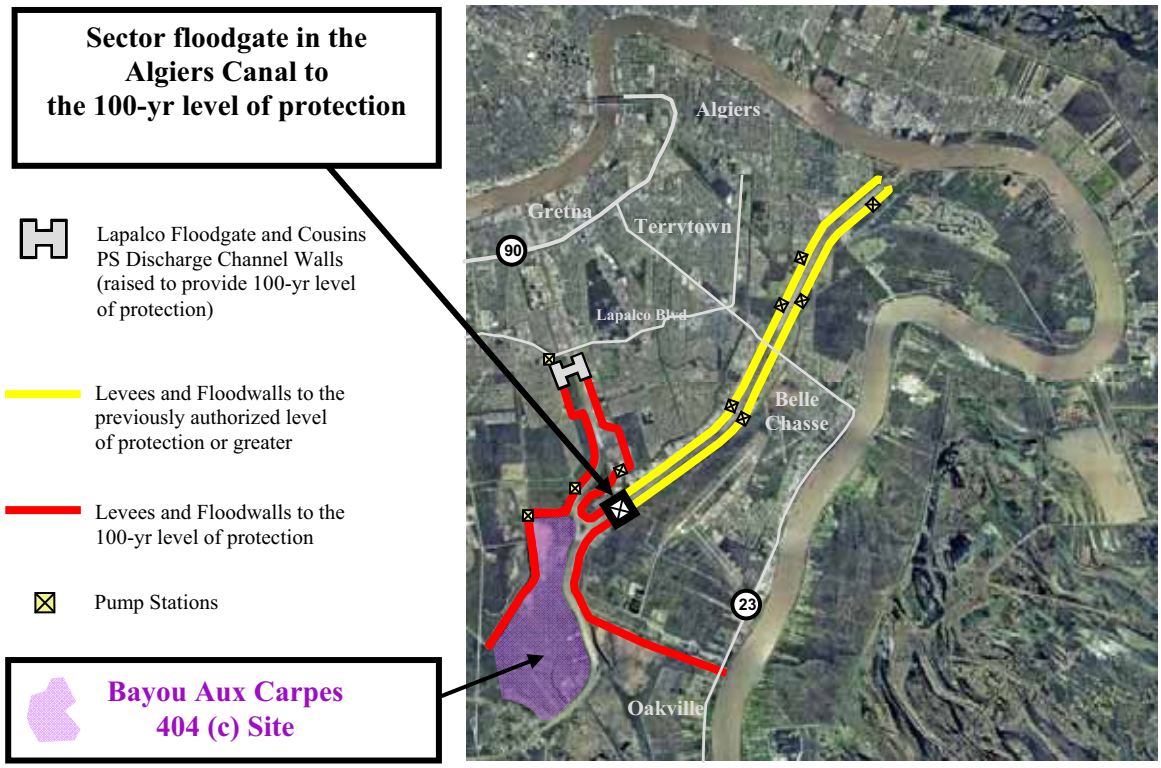


Figure 3. Conceptual Algiers Gate alternative schematic.

When the AG alternative was evaluated for system reliability, adverse environmental impacts, schedule and cost, it was determined this alternative would be less reliable than the proposed action (GIWW WCC) and GIWW A alternative but more reliable than the PP alternative. The AG alternative would reduce the primary line of defense by 18 miles. Though this alternative proposes to reduce the extent of parallel protection in the system along the Algiers Canal, there would still be areas with parallel protection serving as the primary line of defense along the Harvey Canal industrial reach. In addition, the line of parallel protection along the Harvey Canal industrial reach is situated behind the businesses and would not serves as a flood barrier to those industrial areas. The proposed action (GIWW WCC) would create a primary line of defense that would also reduce risk to those industrial areas and prevent flooding of the businesses. Construction of the proposed action would place the existing floodwalls and levees along the Harvey and Algiers canals as the secondary line of defense in the event of canal flooding due to system over topping. In addition, upgrading levee stretches west of the Harvey Canal would greatly increase the levee footprint and would impact both the human and natural environment. Adverse environmental impacts for this alternative would be greater than those of the proposed action (GIWW WCC). See the alternative comparison tables below for specific details on system reliability, environment and schedule.

The Parallel Protection alternative uses only improvements to existing levees and floodwalls along the GIWW, Harvey and Algiers Canal to achieve 100-year LOP. This alternative is similar to the AG alternative along the GIWW and Harvey Canal; however, there is no navigable floodgate built on the Algiers Canal. Instead, 100-year LOP is achieved along the

Algiers Canal by raising levees and floodwalls. Levee would be raised to 14.0 feet along the V-Line Levee to the Estelle Pump Station, continuing along the Estelle Outfall Canal, and finally running north along the western bank of the Harvey Canal to Lapalco Blvd. Major modifications to the Cousins pump station discharge walls and the Lapalco floodgate would be required. On the opposite side of the Harvey Canal (east bank), floodwall would be raised to 14.0 feet from Lapalco Blvd. to the Algiers Canal. The existing levees and floodwalls on both banks of the Algiers Canal would be modified from Hero cut to the Algiers Locks. Elevations of the levee and floodwall improvements along the Algiers Canal would range from 14.0 to 16.0 feet. Improvements to existing flood protections structures would consist of:

- Raising existing levees (which will require the acquisition of additional rights-of-way and the removal of numerous dwellings, apartment complexes, electrical transmission towers, modifying the bridge supporting piers for two vehicle bridges and one railroad bridge crossing the canal, degrading the existing levees, installing a high strength geotextile at elevation 0.0 and rebuilding the levee to the 100-year LOP);
- Constructing and modifying existing floodwalls; and
- Constructing floodwalls and floodgates on existing levees.

The construction options utilized throughout the Algiers Canal reach would be highly dependent upon localized land use and constructability. In addition to the levee and floodwall improvements, the PP alternative would require elevation modifications and flood protection tie-ins to all pump stations along the Harvey and Algiers Canals, the Algiers Locks, the Lapalco Sector Gate and the Estelle Pump Station. Some of these modifications have already occurred, or are currently under construction as part of a pre-Katrina authorized action. These modifications, and the PP alternative levee and floodwall modifications, would provide 100-year LOP in coordination with levee tie-ins with additional HSDRRS projects (IER #13 and #14).

Belle Chasse Tunnel - The existing lanes of south-bound LA 23 at Belle Chasse travel through a tunnel under the Algiers Canal; this complicates raising the LOP in that area. The tunnel structure is probably inadequate to support higher water loads that would be associated with the 100-year LOP. Two options have been identified:

- Locate the line of protection away from the canal to points beyond the tunnel entrances. This would require flood closure gates across the highway at each end of the tunnel. This plan would result in flooding of the tunnel during periods of high water, and it might even be necessary to require flooding of the tunnel to prevent structural damage from high water pressure.

- Abandon the tunnel and reroute the highway to a new high-level bridge. This plan would also require relocating the roadway and the addition of ramps to the bridge, and might require backfilling the tunnel for structural security.

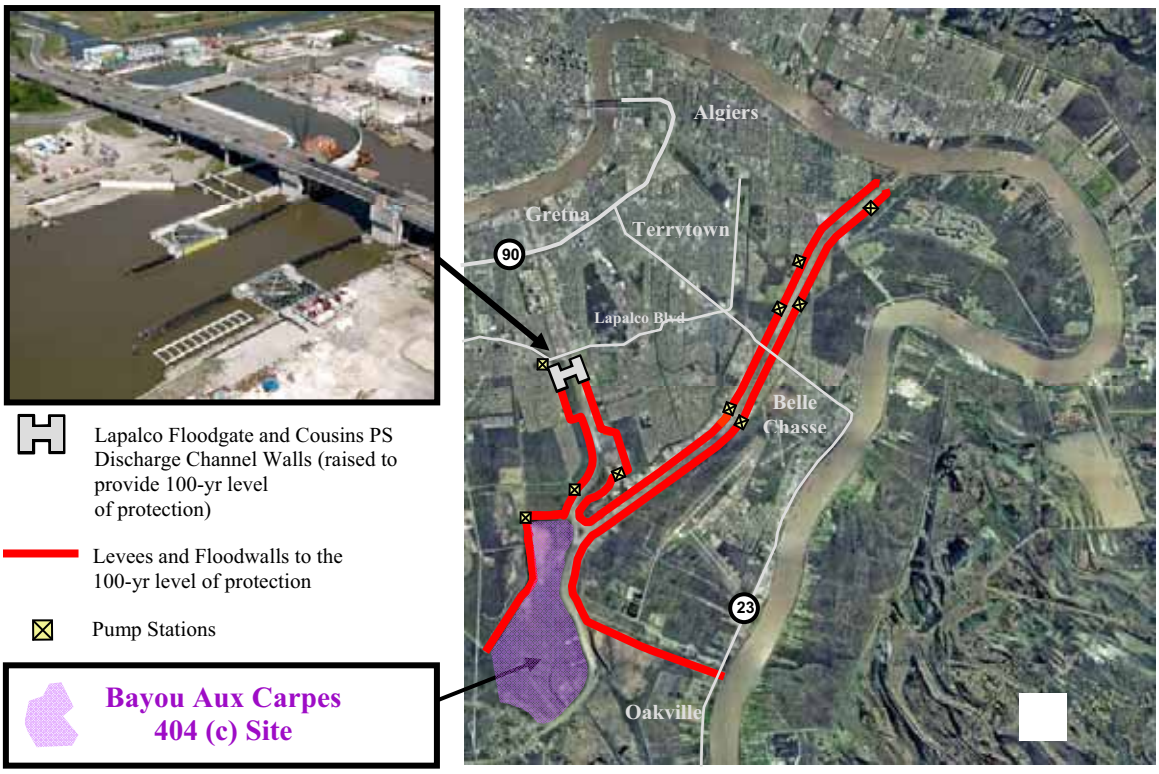


Figure 4. Conceptual Parallel Protection alternative schematic.

When the PP alternative was evaluated with respect to system reliability, adverse environmental impacts, schedule and cost, it was determined this alternative would have the lowest system reliability, have the most adverse socioeconomic impacts, have significant environmental impacts, require the most time to construct and be least economic. This alternative that keeps the approximately 27 miles of existing risk reduction system as the primary line of defense would be the least reliable because this alignment contains numerous potential failure points. In addition to reduced reliability, upgrading the current alignment would require large scale residential and commercial relocations and would have serious environmental implications (i.e. HTRW issues). See the alternative comparison tables below for specific details on system reliability, environment and schedule.

Alternative Comparison Tables

The tables below demonstrate alternative comparisons for three criteria: risk and reliability, environment, and schedule. The criteria were broken out into multiple "sub-criteria" for a more thorough comparison among alternatives. Specific cost comparison information was excluded as it cannot be disclosed at this time.

RISK & RELIABILITY COMPARISON

		GIWW WCC	GIWW A	AG	PP
Reliability	Storm load exposure	Approximately 3 miles of storm frontage	Approximately 1 mile of storm frontage	Approximately 9 miles of storm frontage	Approximately 27 miles of storm frontage
	Overtopping frequency	Overtopping frequency more than GIWW A alternative but less than AG alternative	Lowest overtopping frequency because it has least lineal exposure and 2' superiority over 100-yr water elevations along entire storm front	Overtopping frequency more than GIWW WCC alternative but less than PP alternative	Highest frequency of overtopping because it has greatest lineal exposure and least superiority over 100-yr water elevations
	Overtopping volume	Overtopping volume more than GIWW A alternative but less than AG alternative	Lowest overtopping volume because it has the highest superiority over 100-yr elevations and shortest frontage	Overtopping volume more than GIWW WCC alternative but less than PP alternative	Highest overtopping volume because it has no superiority over 100-yr elevations and longest frontage
	Non-storm load exposure	More storm load exposure than GIWW A alternative but less than AG alternative	Least lineal exposure to non-storm loads. Not susceptible to vegetation and wildlife encroachment. Protection is perpendicular to the navigation, possibly affecting frequency or severity of collisions	Significantly more storm load exposure than GIWW WCC alternative but less than PP alternative	Greatest lineal exposure to non-storm loads. Earthen levees are susceptible to vegetation and wildlife encroachment. Protection is parallel to the navigation, possibly affecting frequency or severity of collisions
	Value to terrorists	Less value to terrorists than GIWW A alternative, but more than AG alternative	High because HPS features are concentrated in terms of location and value, but easier to monitor and defend	Less value to terrorists than GIWW WCC alternative, but more than PP alternative	Low because HPS features are distributed by location and value, but harder to monitor and defend
	Resistance to explosive devices	Lower resistance to man-portable explosives and more accessible to larger devices	Lower resistance to man-portable explosives and more accessible to larger devices	Lower resistance to man-portable explosives and more accessible to larger devices	High resistance to man-portable devices; vulnerability to larger devices is low because access would be difficult
	Transitions (levee-to-floodwall, floodwall-to-floodgate, etc)	Approximately 10	Least number of transitions approximately 6	Approximately 60	Highest number, approximately 90
	Compartmentalization	Creates 2nd largest storm water storage subbasin	Creates the largest storm water storage subbasin	Creates smallest storm water storage subbasin	No new sub-compartments created
	Foundations	Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative	Pile foundations are engineered	Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative	Levee foundations would be non-engineered unless geo-textile or soil cement design alternatives are adopted; any T-wall foundations would be engineered
	Complexity	High; largest number of new HPS features, though many separate levee reaches are eliminated	High; largest number of new HPS features, though many separate levee reaches are eliminated	High; though lower than GIWW WCC and GIWW A alternatives	Low; largest number of reaches, but no new HPS features created
	Interdependency of features	8-9 pump stations upstream dependent on the new pump station	9 pump stations upstream become dependent on the new pump station	7 pump stations upstream depend on new pump station	No new dependencies
	Redundancy	Pumping capacity is	Pumping capacity is	Pumping capacity is	No redundancy

		supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps	supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps	supplied by 3 sets of 3 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps	
	Active vs. Passive control	Pump station and gates must be staffed before, during, and after a storm event; 1 additional pump station (Old Estelle) must be staffed	Pump station and gates must be staffed before, during, and after a storm event	Pump station and gates must be staffed before, during, and after a storm event; 30 flood gates and 4 pump stations must be operated	Levees are generally considered passive flood protection, but there are 47 floodgates, 33 sluice gates, and 19 butterfly valves that must be manually operated
	Operation & Maintenance	Most expensive	Most expensive	Less expensive than GIWW WCC and GIWW A alternatives, but significantly more than PP alternative	Least expensive
	Inspections and maintenance	More rigorous inspections	More rigorous inspections	More rigorous inspections	Less rigorous; only visual inspection of levee and floodwalls
	Quality control	Pre-fabricated components have added layers of quality control prior to placements and must satisfy industry standards; however, any specialized test procedures and resources required for these features may be a liability	Pre-fabricated components have added layers of quality control prior to placements and must satisfy industry standards; however, any specialized test procedures and resources required for these features may be a liability	Pre-fabricated components have added layers of quality control prior to placements and must satisfy industry standards; however, any specialized test procedures and resources required for these features may be a liability	Greatest opportunity for non-compliance with construction specifications; Quality during placement and compaction of earthen levees and floodwalls would vary over space and time
	Utility dependence	Pump stations and gates will require connection to utility grids	Pump stations and gates will require connection to utility grids	Pump stations and gates will require connection to utility grids	No connection to utility grids required
	Reliability Team Assessment (relative scoring)	7(extrapolated)	8	3	0
Risk	Hurricane seasons under construction	3	3	3	5
	Redundancy of system	Most redundant	Most redundant	Redundancy on Algiers Canal; no redundancy on Harvey Canal	No redundancy
	Uncertainty in subsurface conditions	More uncertain than GIWW A alternative, Less uncertain than AG alternative	Least uncertain	More uncertain than GIWW WCC alternative, Less uncertain than PP alternative	Most uncertain
	Barge impact causing catastrophic failure	Least susceptible	Least susceptible	More susceptible than GIWW WCC and GIWW A alternatives, but less than PP alternative	Most susceptible

ENVIRONMENTAL COMPARISON

	GIWW WCC	GIWW A	AG	PP
Total Wetlands and Non-wetlands Uplands Resources (Unavoidable Impacts)	**Direct Impacts**: 9.6 acres of Nationally significant 404 c area wetlands + 223.3 acres of direct impacts to BLH + 8.9 acres of swamp (not in 404 (c)) = **232.2. Total acres of wetland** **Indirect impacts:** -Minimal -Minimal impact to flotant marsh **Other Details:** -Possible project feature augmentation by discharging Estelle PS storm water effluent into 404 (c) area (dependent on study and coordination with EPA and rest of Interagency team to minimize impacts to the 404 (c) area as a result of the Government's action. Could be engineered to allow storm water flow on 404 (c) area to better maintain the fresh/salt water regime -May return 20 acres of land currently on the protected side of levee to the flood side as part of the bypass navigation channel. Habitat could be restored to bottomland hardwood forest. -Wall along GIWW would prevent industrial debris and effluent from flowing into 404 (c) area.	**Direct Impacts:** 5.1 acres of Nationally significant 404 (c) area wetlands + 112 acres (not in 404 (c)) = **117.1 Total acres of wetlands** **Indirect impacts:** -Bifurcation of the 404 (c) area alters wildlife migration and ground water flow -Impoundment of northern 519 acres of flotant marsh and the potential total loss of flotant marsh and degradation within the 404 (c) **Other Details:** -Floodwall would be designed to allow drainage and exchange of surface water during non-storm conditions -The wall would be designed and built to control outflow of flooded marsh -This alternative may return 20 acres of wetlands to the flood side	**Direct Impacts:** 161 acres of wetlands + 150 acres of BLH = **311 Total acres of wetland** **Indirect impacts**: -Minimal indirect impacts **Other Details:** -Storm surge reduction by marsh and flotant -May return ~10 acres to flood side	**Direct Impacts:** 150 acres of BLH + 50 acres BLH = **200 Total acres of wetlands** **Indirect impacts**: -Minimal indirect impacts **Other Details:** - Storm surge reduction by marsh and flotant
Socioeconomic/Human Resources	-Relocation of 1 business and 1 pipeline (Enterprise Gas pipeline) -Harvey canal businesses would included in the protection	-Relocation of 1 business -Bisecting 404 (c) degrades recreational use of area and potentially impacts hunting, bird watching, canoeing, kayaking, photography and commercial uses (swamp tours, etc.), though gates crossing the 404 c could accommodate the recreational use -Harvey canal businesses would be included in the protection	-Relocation of 13 residences and 3-4 businesses	-Relocation of 70 residences, 600 apartments, and 55 businesses

Other: HTRW, borrow, air quality, noise quality, cultural, and aesthetics	-Minimal HTRW issues -keeps HTRW out of 404 c area -possible impacts due to borrow transport (likely barge in borrow to reduce impacts (3.5 M cy)) -Air quality medium impacts	-Minimal HTRW issues -minimal environmental impact due to borrow transport (250K cy) -minimal air quality issues	-Minimal HTRW issues on Harvey reaches (surge into area would pick up industrial debris, etc.) -possible Impacts due to borrow Transport (likely barge in borrow to reduce impacts (4.5 M cy) -Air quality medium impacts	-Potential significant HTRW issues on Harvey reaches (surge into area would pick up industrial debris, etc.); landfills on Algiers reaches -Cultural issues: Antebellum homes -Impacts due to borrow Transport (9.54M cy) -Air quality high impacts

TIME COMPARISON

	GIWW WCC	GIWW A	AG	PP
Construction Completion Date	MAR 2013	MAR 2013	AUG 2013	JUN 2013
100-year "wall of protection" completion date. Full pumping capacity would not be in place until Construction Completion date	JUN 2011	JUN 2011	JUN 2011	JUN 2013
Possible time slips due to real estate, relocations, environmental proceedings and litigation	Action within 404 (c) area, and relocation issues	Action within 404 (c) area and relocation issue Acquisition of property	Real estate and relocations issues	Real estate and relocation issues

Summary

The proposed action, GIWW WCC alternative proposes to alter the original system alignment and construct a streamlined surge barrier. The alternative would consist of 3 miles of levee and floodwall that would reduce the primary line of defense by 36%, a navigation gate(s) structure, a 20,000 -25,000 cfs pump station, 10 transition points, and a bypass channel. The existing protection at the approximate elevation 8.5' would become the secondary line of protection during a storm event. Construction of this alternative would directly impact a total of 232.2 total acres of wetlands (9.6 acres of nationally significant 404 (c) wetlands), would have minimal indirect impacts to wetlands, and would have minimal socioeconomic impacts. Borrow requirement would be approximately 250,000 cubic yards (cy).

The GIWW A alternative also proposes to alter the original system alignment to construct a streamlined surge barrier. This alternative would consist of less than 1 mile (0.9 mi) of levee and floodwall that would reduce the primary line of defense by 41%, a navigation gate(s) structure, an approximately 20,000 -25,000 cfs pump station, 6 transition points, and a bypass channel. The existing protection at the approximate elevation 8.5' would become the secondary line of protection during an event. This

alternative would directly impact 117.1 acres of wetland (5.1 acres of nationally significant 404 (c) wetlands) would bifurcate the 404 (c) area and have potentially significant, irreparable direct and indirect impacts to the northern impounded region (alter ground water flow, alter animal migration, potentially degrade flotant marsh, etc.) However, this alternative would have minimal socioeconomic impacts (i.e., residential or commercial relocations.) Borrow requirement would be approximately 3.5 M cy.

The AG alternative proposes to keep parallel protection along the Harvey Canal but build a gate at Algiers Canal to reduce the primary line of defense by 24%. This alternative would consist of 9 miles of floodwall (4 miles) and levee (5 miles), fronting protection at 4 pump stations, retrofitting the Lapalco Sector Gate, 30 floodgates on Harvey Canal, and 12 transition points. The existing protection at approximate elevation 8.5' behind the Algiers Canal gate would serve as secondary protection during an event. This alternative would impact 311 acres of wetlands, 13 residences, and 3-4 businesses. Borrow requirement would be approximately 4.5 M cy

The PP alternative proposes to keep the original alignment, approximately 27 miles of levee and floodwall, 47 floodgates on Algiers (17) and Harvey canals (30), approximately 90 transitions, 33 sluice gate structures, 19 butterfly valves, fronting protection and backflow suppression at 9 pump stations, retrofitting the Lapalco Sector Gate, and secure the Belle Chasse tunnel. This alternative would have no secondary line of defense during an event, would impact 200 acres of wetlands, 70 residents, 600 apartments and 55 businesses. Borrow requirement would be approximately 9.4 M cy.

Government's Proposed Action

The Corps has determined that the GIWW WCC alternative, which alters the current system alignment, is the government's proposed action for this segment of the HSDRRS because this alternative would provide the most reliable, time sensitive and cost effective solution with the least adverse environmental impacts.

b) The need to modify the Bayou aux Carpes 404 (c) Final Determination and why this modification is in the public's interest.

After rigorous investigation of all possible alternatives and close collaboration with the EPA, other Federal and state resource agencies, and local stakeholders, the Corps has brought forward the GIWW WCC alternative as the proposed action. Though possible to design, engineer and construct all four previously discussed alternatives, the proposed action would provide the most system reliability and maximum risk reduction with the least adverse environmental impacts; therefore, the GIWW WCC alternative has been identified as the proposed action.

Since the alternative that would provide the most reliable, least risk, time sensitive and cost effective solution with the least adverse environmental impacts would require constructing a floodwall along the western bank of the GIWW within the Bayou aux Carpes 404 (c) area, the Corps requests a modification to the Bayou aux Carpes 404 (c) Final Determination.

The proposed action would serve the national public interest because it would significantly reduce the risk during a 100 year storm event for nearly 286,000 people, nearly 80,000 residences, and over 3,000 businesses on the West Bank of the Mississippi River. Given the lessons learned from Hurricane Katrina, it is in the national interests for the Federal government to wisely invest in the alternative that provides the lowest risk and is the least environmentally damaging. The hurricane system in New Orleans is only as good as the sum of its parts. By ensuring that all the parts are selected and constructed to the highest standards possible, the nation would benefit due to lower risk to the system and lower potential for catastrophic losses. The system, when completed, will provide the citizens of the area the opportunity to participate in the National Flood Insurance Program. Certification of the system to meet flood insurance standards is an issue critical to the full economic recovery of the area. Pre-Hurricane Katrina assets for the area at risk were valued at nearly 22 billion dollars. The GIWW WCC alternative would provide a more streamlined barrier system that would not only reduce the length of the hurricane system but would also create a primary and secondary line of defense during a storm event. The proposed action also builds upon the Federal mandate to avoid and minimize environmental impacts by reducing overall impacts to wetlands, bottomland hardwoods and people. The GIWW WCC alternative eliminates the need to relocate businesses and residents along the Algiers and Harvey canals that would be required if the Corps were to construct either the AG or PP alternatives. The construction of this proposed action would be a tremendous step forward for the nation in providing the 1% LOP congressionally authorized and demonstrates the Corps' drive to incorporate current, more adequate risk reductions measures into the system.

There are also overwhelming benefits to the overall economy of the nation from constructing this alternative. The proposed action serves the public interest of the nation as stated above by reducing risk for the City of New Orleans, but this alternative also provides for a more resilient Port of New Orleans.

The Port of New Orleans is the fifth largest port in the United States based on cargo handled, is the second largest in Louisiana after the Port of South Louisiana, and is the12th largest in the United States for value of cargo. The Port of New Orleans handles approximately 84 million short tons of cargo a year, where as the Port of South Louisiana handles approximately 199 million short tons a year. The two Louisiana ports combined form the largest port system in the world by bulk tonnage, and the world's fourth largest by annual volume handled. The Port of New Orleans is a major transshipment point for steel, rubber and coffee. It is the largest port in the United States for rubber imports. Approximately 6,000 ships from nearly 60 nations dock at the Port of New Orleans annually. The chief exports are grain and other foods from the Midwestern United States and petroleum products. The leading imports include rubber, chemicals, cocoa beans, coffee, and petroleum. The port handles more trade with Latin America than does any other United States gateway, including Miami. In addition, the rail system is a major component in cargo transport, and the Port of New Orleans is the only seaport in the US with access to six class one rail roads (Port of New Orleans 2008).

New Orleans is also a busy port for barges. The Mississippi River and the Gulf Intracoastal Waterway (GIWW) in the New Orleans area are used to transport approximately 50,000 barges a year. Within the port, cargo (commodity) is transferred from barges to rail and overland transport for distribution across the country. In addition to shipping commerce, the Port of New Orleans is considered one of the nation's premier cruise ports. It handles nearly 700,000 cruise passengers a year (Port of New Orleans 2008).

Besides serving local interests and reducing risk to local residences and business for the purpose of public safety and securing the local economy, the construction of this proposed alignment (GIWW WCC alternative) would also serve the national interest and reduce risk for the Port of New Orleans, a cornerstone of the national economy.

c) Planning and design efforts that have been incorporated into the proposed action to minimize impacts to the 404 (c) area.

The Corps proposes to employ several measures to reduce the impacts to the Bayou aux Carpes 404 (c) area.

1. <u>The GIWW WCC alternative:</u> The first measure employed was the derivation of the GIWW WCC alternative. Based on a system reliability study of the West bank and vicinity HSDRRS, the Corps had initially proposed the GIWW A alternative; however, after collaborating with EPA, National Park Service staff and other Federal and state resource agencies, the GIWW WCC alternative was derived to minimize adverse direct and indirect impacts to the Bayou aux Carpes 404 (c) area. The GIWW WCC alternative, which would maintain system reliability while minimizing adverse environmental impacts, was accepted by the Corps and brought forward as the proposed action. As described in the alternative comparison above, the GIWW WCC alternative limits adverse impacts to the 404

(c) by building a structure with a narrow footprint (floodwall and earthen berm) on a previously disturbed area along the west bank of the GIWW.

2. Innovative techniques to build a floodwall along a navigable water way: The segment of the WBV HSDRRS 100 year LOP proposed within the Bayou aux Carpes 404 (c) area would be constructed as a floodwall in lieu of an earthen levee in order to ensure that the most reliable, least damaging alternative is in place. A floodwall can be built on a much smaller footprint than an earthen levee. The Corps recognizes that there are certain risks associated with placing a floodwall along a navigable waterway, but to minimize the footprint of this surge barrier component within the Bayou aux Carpes 404 (c) area, the Corps will investigate and utilize innovative techniques to design and build a structure with the narrowest footprint possible.

3. Construction via water based equipment: The floodwall would be constructed within the 100' right-of-way. No additional construction easements would be required for wall construction.

4. GIWW Gate location: The Corps proposes to move the gate on the GIWW as far north as practical to further reduce impacts. However, it is understood that the GIWW is a Federal navigation channel that is of national significance which requires that design of this structure be such that safety of users of the system be a paramount design consideration.

5. Project features: The Corps also believes that it is feasible to complete alterations to existing project features to minimize adverse impacts that could potentially occur as a result of the construction of the GIWW WCC alternative along 4,200 LF of the eastern shoreline of the Bayou aux Carpes 404 (c) area. Another feature would be the redirection of the Old Estelle pump station storm water effluent into the 404 (c) area to introduce additional nutrients and fresh water into the system. Additionally, under the proposed action, the Corps would create gaps in several existing canals in the southern end of the 404 (c) area to promote improved hydrology within the 404 (c) area. Specifically, the shell plug at Bayou des Familles as well as plugs along other canals would be removed if study results demonstrate a positive benefit in minimizing the environmental impacts to the area can be achieved. All actions would be fully coordinated with EPA and the interagency team. Studies are underway at the Corps Engineering Research and Development Center (ERDC) in Vicksburg, Mississippi to determine the best possible design to allow for maximized benefit of this work in the Bayou aux Carpes 404 (c) area. Hydrology studies are ongoing and are expected to be completed by 17 October 2008. Environmental surveys are underway to determine the appropriate areas for the proposed spoil bank gapping within the Old Estelle discharge canal and for the removal of plugs in Bayou des Familles and other canals. In addition, the surveys will determine the appropriate water flow velocities within the 404 (c) when creating the gaps and removing canal plugs, and the appropriate nutrient loading levels. These studies will be integrated

into the efforts of the Interagency resource team that was formed early in the analysis phase to ensure that the national interest placed on the Bayou aux Carpes site meets the wisest and best use of the area.

d) Planning and design considerations that have been taken to avoid additional impacts from any reasonably foreseeable future flood protection measures (i.e. the Louisiana Area Coastal Protection and Restoration (LACPR) Study) when designing hurricane protection to prevent further impacts to the 404 (c) area.

In 2007, Congress authorized the Corps to conduct a study to be known as the Louisiana Coastal Protection and Restoration (LACPR) to determine viable projects to be considered for providing a higher level of risk reduction (Category 5) and coastal restoration for southern Louisiana. The Corps is not authorized by Congress to incorporate adaptations for LACPR when planning and designing the 1 percent risk reduction projects; however, the Corps is carefully considering the impacts that could occur if Congress authorized a larger project.

Of the alternatives investigated to reduce risk during a 100 year storm event, the GIWW WCC alternative (the proposed action) has the greatest adaptability to accommodate an enlargement. The Corps proposes that the upgrade to the floodwall and earthen berm be constructed via water access as currently proposed. In addition, all upgrades to levee and floodwall stretches that border the eastern and northern side of the 404 (c) area would be shifted to the protected side of the risk reduction system and would not impact the 404 (c) area. It is also not likely that a Category 5 upgrade to the risk reduction system would require movement of the navigation gate(s) structure.

The GIWW A alternative which would bisect the 404 (c) area would require additional construction impacts to cross the 404 (c) area, potentially compounding the ecological and hydrologic impacts to the area.

If the Algiers Gate alternative were constructed it would require further upgrades to the Harvey Canal and levees west of Harvey Canal, which would result in more business relocations, leaves Harvey Canal business on the flood side of the protection system, and has more direct environmental impacts. This would pose serious design considerations and costs given the length of the system (45,720 LF or 9 miles), the instability of the western side of the Harvey Canal, and the amount of upgrades to floodgates and pump stations required to reach the prescribed elevations.

The Parallel Protection alternative poses even more serious design and cost issues. Upgrading approximately 27 miles of the risk reduction system would include the upgrades and impacts listed above for the Harvey Canal and upgrades for all of the levees, floodwalls, and floodgates along the Algiers Canal, and the Belle Chasse tunnel. If upgrading the current alignment along the Algiers and Harvey canals for the 1 percent storm risk reduction system requires the relocation of approximately 700 people and 55

businesses, upgrading the system for a Category 5 system would potentially directly impact 1,000s of people and hundreds of businesses.

e) Detailed plan for adequate site specific mitigation of unavoidable adverse impacts to the 404 (c) area, at a level commensurate with the significance of an action impacting wetlands with in a 404 (c) area.

The Corps agrees that mitigation for unavoidable impacts to the unique and nationally significant Bayou aux Carpes 404 (c) wetlands would be determined in partnership with the EPA and NPS and that mitigation would occur within the 404 (c) area and/or the adjacent Jean Lafitte National Historic Park and Preserve. Mitigation projects proposed by EPA, NPS and other members of the Interagency team consist of spoil bank gapping of drill hole areas within the 404 (c) area, and tallow tree control projects within the Bayou aux Carpes 404 (c) area and the National Park. The Interagency team is committed to continue to investigate reasonable alternatives as the Corps moves forward with finalizing a construction alternative for the GIWW West Closure Complex. Once field surveys are conducted, and refined habitat units of impact are defined, mitigation projects can be explored and designs can be developed and submitted to the Interagency team for review. Once a decision is made by the Corps on the governments action for reducing risk in the Harvey and Algiers Canal area, mitigation projects would be fully developed. The Corps proposes to implement any required mitigation projects within the 404 (c) area concurrently with the design and construction of the floodwall and earthen berm / access road.

Currently a feasibility level analysis of the mitigation options is underway. A draft Wetlands Value Assessment (WVA) coordinated by US Fish and Wildlife Service has been provided to the Interagency team for comments. The Corps agrees that all impacts calculated by this WVA process will be fully mitigated. Even any unavoidable impacts to the Bayou aux Carpes area as a result of the investigative surveys and borings would be included in the final mitigation plan for the project. The Corps acknowledges the significance of the 404 (c) wetlands and agrees full mitigation for adverse impacts within this unique area may require mitigation in addition to the direct impacts calculated by the WVA to fully compensate for the impacts associated with constructing the Government's proposed action. Monitoring of the mitigation implemented would be conducted in collaboration with the EPA, the NPS, and other Federal and state resource agency partners. If monitoring reveals any issues, changes would be investigated and implemented to ensure full mitigation.

The Corps in partnership with the non Federal sponsor, the state of Louisiana, the EPA and NPS would closely monitor mitigation efforts within the 404 (c) area throughout the life of the project (50 years) to ensure the benefits of the mitigation projects.

The HSDRRS project is fully authorized and funded at 16.3 billion. This funding includes sufficient amounts to complete the design and construction of any identified mitigation measures.

f) A review of projected wetland impacts as per the Corps 404 (b)(1) guidelines, and EPA 404 (b)(1) and 404 (c) procedures found in 40 CFR Parts 230 & 231.

The Corps is preparing a Clean Water Act, Section 404 evaluation using standard methods and analysis practices. This evaluation will be coordinated with Federal and state resource agencies before being published for a 30-day public review period. The evaluation will follow the guidelines and procedures of 404 (b)(1) and 404 (c) as found in 40 CFR Parts 230 & 231.

A draft of the Corps 404 (b)(1) evaluation that would be available during the 30-day public comment period is provided below.

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: **IER #12: WBV, GIWW, Algiers and Harvey Canals Hurricane Protection Alternatives**

PROJECT DESCRIPTION.

The proposed action, GIWW West Closure Complex (WCC), includes construction of a navigation/current reduction flow structure and gate in the Gulf Intracoastal Waterway (GIWW) south of the confluence of the Algiers and Harvey Canals and upstream of the Hero Canal, along with an adjacent pumping station and a by-pass canal. Upgrading of existing levees and/or construction of new levee structures will be required for 3 miles; approximately 4200 linear feet (LF) of floodwall construction along the west side of the GIWW, 3700 LF of floodwall improvements from the Harvey Canal to Old Estelle pump station, and 5700 LF of improvements along the V-line levee. This will result in approximately 3 miles of levee improvements or construction for this alternative.

Features of the system along the east side of the GIWW include a 150-to-300 foot gate and a 100-to-200 foot gate built to a protection elevation of 16 feet or greater, tied to the nearest flood protection levee. A pumping station of at least 20,000 cubic feet per second (cfs) will provide 100-year discharge and positive backwater prevention. The bypass channel will be used in the event of the closure of the primary closure structure. The adjacent 404 (c) area will be affected by the levee construction on the western side of the GIWW.

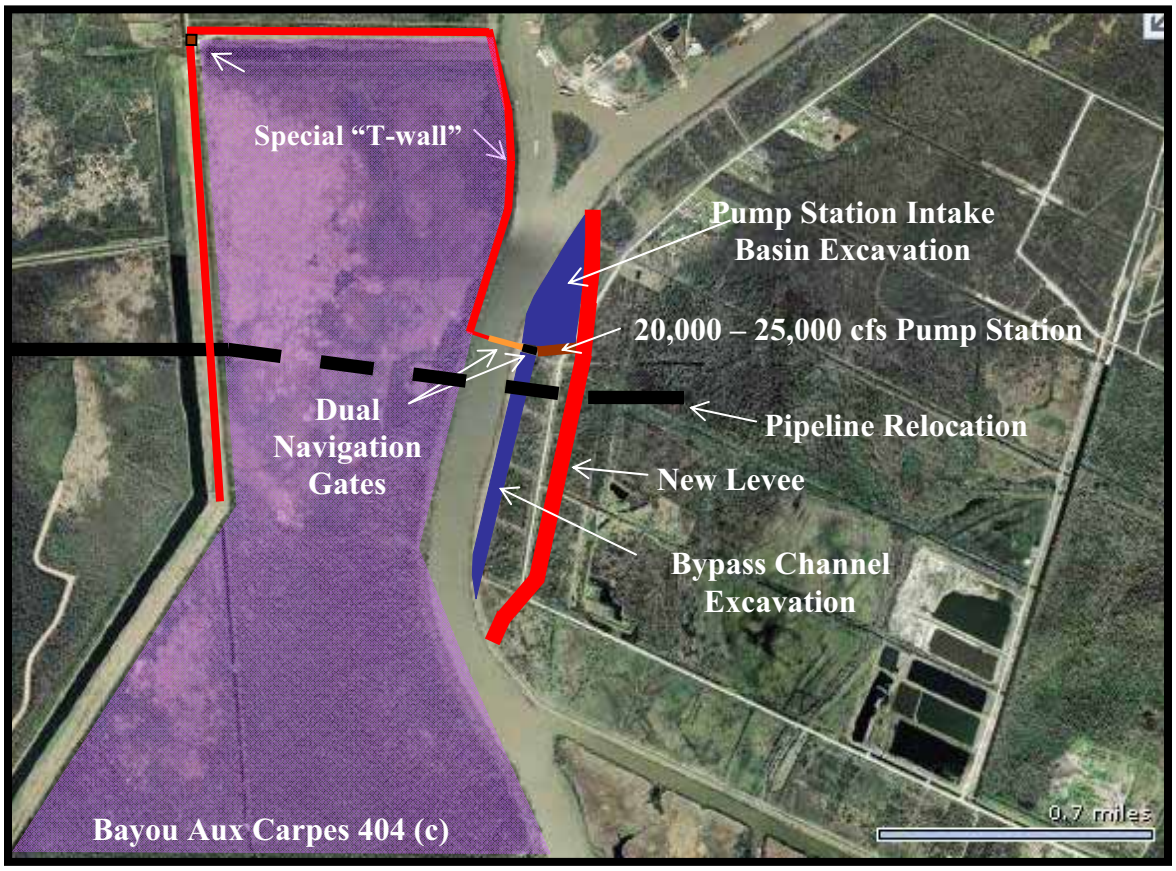
The current levee and floodwall system providing parallel protection for the GIWW, Algiers, and Harvey Canals is 27 miles long and will provide secondary protection to 8.5 feet NAVD.

The new levee design will require approximately 986,000 cubic yards of earthen material and 120,000 cubic yards of stone to construct.

The WCC alternative provides 100-year protection based upon improvements, enhancements, and construction confined to the GIWW reach in concert with tie-ins to improvement to the Hero Canal Levee (IER #13) and the Pipeline Canal Levee (IER #14).

Typical equipment utilized to accomplish the work outlined above will include water trucks, dump trucks, hole cleaners\trenchers, bore\drill rigs, cement and mortar mixers, cranes, graders, tractors/loaders\backhoes, bull dozers, front end loaders, aerial lifts, pile drivers, fork lift, generators and, marine vessels and barges.

FIGURE 1: IER 12



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

A review of this project indicates that:

	Preliminary[1]		Final[2]	
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.		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		X	
(2) Effect on the aquatic food web.		X	

2. Technical Evaluation Factors (Subparts C-F).

	N/A	Not Significant	Significant*
(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	

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

Implementation of the proposed action will directly impact approximately 232.2 acres of wetland habitat. All wetland impacts will occur adjacent to sections of pre-existing ROW within the GIWW reach. The proposed action will primarily impact bottomland hardwood forest, cypress-tupelo swamp and marsh wetland habitats. The majority of the wetland impacts will occur on the eastern side of the GIWW due to the construction of the gate and bypass channel. Wetland impacts are minimized along the remaining sections of the alternative by utilizing floodwall and protected side shifts where necessary, particularly to avoid additional impacts to the EPA 404 (c) area. Among the wetlands potentially impacted by the proposed action, a total of 71 acres of forested wetland habitat will be impacted, specifically requiring in-kind mitigation. Approximately 9.6 acres of wetland impacts within the GIWW reach would potentially occur within the EPA Bayou Aux Carpes 404 (c) site.

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	Yes
(2) Hydrography in relation to known or anticipated sources of contaminants ……	No*
(3) Results from previous testing of the material or similar material in the vicinity of the project	Yes
(4) Known, significant sources of persistent pesticides from land runoff or percolation	No*
(5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances	No*
(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources	No*

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

(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	No*
(8) Other sources (specify)	No*

* All fill material will be free from contaminants before use in levee construction projects. The fill will come from multiple sources but will all meet minimal physical and chemical criteria being evaluated separate IERs.

Appropriate references:

1. Environmental Regulatory Code, Part IX. Water Quality Regulation, Louisiana Department of Environmental Quality, 1994, 3rd Edition.
2. State of Louisiana Water Quality Management Plan, Volume 5, Part B – Water Quality Inventory, Louisiana Department of Environmental Quality, Office of Water Resources, 1994.
3. Sector Gate South, Final Assessment Report, GIWW, Algiers and Harvey Canal and Highpoint Shooting Range, AEROSTAR Environmental Services, July 2008

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 …….....	Yes
(2) Current velocity, direction, and variability at disposal site …….....	No
(3) Degree of turbulence …….....	Yes
(4) Water column stratification …….....	No
(5) Discharge vessel speed and direction …….....	NA
(6) Rate of discharge ..... …….	Yes
(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities) …….....	Yes
(8) Number of discharges per unit of time …….....	No
(9) Other factors affecting rates and patterns of mixing (specify) …….....	No

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: A number of actions will minimize the adverse effects of the proposed actions.

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

The material must meet certain criteria to be used in levee construction, and will be similar to material used in the original levee work.

According to the Corps, all material will be free from contaminants before use in levee rebuilding projects. The fill may come from many different areas being evaluated in separate IERs. Qualified contractors using the appropriate equipment to minimize impacts to wetland areas will place all material.

The new footprint of the levee was designed to minimize wetland impacts by utilizing existing ROW and non-wetland areas whenever feasible. Best Management Practices will be utilized during the placement of the fill to minimize runoff and turbidity.

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

[1] A negative response 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.

[2] A negative response 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.

Evaluation prepared by:

Position: Robert H. Boudet, Senior Project Manager, AEROSTAR Environmental Services

Date: October 10, 2008

Evaluation reviewed by:

Position: Getrisc Coulson Environmental Manager, Ecological Planning and Restoration Section CEMVN

Position: Gib A. Owen, Chief, Ecological Planning and Restoration Section, CEMVN

Date:

8. Findings.

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

YES

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

Elizabeth Wiggins
Chief, Environmental Planning
and Compliance Branch

In addition, below is a path ahead for this project, the GIWW West Closure Complex – Individual Environmental Report 12. Since the project being proposed is a Federal action, it is in the public's best interest to present all of the information concurrently. Thus it is in the government's best interest to simultaneously publish for 30 day public review the draft Individual Environmental Report, the Corps Clean Water Act 404 (b)(1) public notice, and the EPA notice of consideration of a modification to the Bayou aux Carpes 404 (c) Final Determination. Additionally, given the Administration's commitment to expedite the construction of the HSDRRS and the Corps' stated goal of having the system in place by 2011, the simultaneous publishing of the government's proposal is in the public's best interest and is critical for moving this project towards completion.

g) Draft Path Forward with GIWW WCC

Task	Duration		Start Date		Remarks
Colonel Lee Approved Proposed Action			7/10/2008		
Briefed Corps TFH Director			7/24/2008		
Briefed Corps MVD Commander			7/30/2008		
Briefed Corps HQ			8/13/2008		
Corps Submitted CZM, WQ, T&E, etc.			8/18/2008		
Public Meeting (IER 12,13,14)			8/21/2008		
Briefed Corps ASA			9/16/2008		
EPA Briefed HQ Level			9/30/2008		
NGO Quarterly Meeting			10/7/2008		
Submit Formal Request to EPA for Modification of 404 (c) Final Determination			11/4/08		
EPA Completeness Review			11/4/08		Review of Corps' Request for Modification Document
Complete Draft IER 12 and 404 (b)(1) Public Notice			TBD		EPA will get draft IER 12 to review before it goes out for public comments
IER 12 Public Review - Start	30		12/4/08		
IER 12 Clean Water Act Section 404 (b)(1) Public Notice public review	30		12/4/08		
EPA notice in Federal Register: Proposed modification; Request for comments to the proposed action; Notice for a public hearing regarding the proposed action	30		12/4/08		Concurrent Tasks
Corps Review Public Comments	7		1/3/09		Possibility for an addendum and second 30-day public review period if substantive comments received.
Joint Corps/EPA public hearing on proposed action			1/5/09		
EPA review of public comments on proposed action (with Corps support)	7		1/5/09		
Final IER and Clean Water Act Section 404 (b)(1) staffed for approval	7		1/10/09		IER 12 Decision Record routed for Commanders approval[1](assumes no substantive comment) COL Lee signs Final IER 12 anytime after 1/11/09
EPA R6 sends all supporting documentation to EPA HQ	7		1/12/09		
EPA lists modification in Fed Reg.	1		1/19/09		
Final Modification Determination	30		1/19/09		Effective 30 days after publication (2/18/09)
Signing of Clean Water Act 404 (b)(1)	0		2/19/09		Approved by Chief PM-R

[1] Approval of IER 12 Decision Record allows Corps to proceed with approval of Project Description Document (Internal Corps Document) and a Project Partnering Agreement with the non-Federal Sponsor (State of Louisiana – (CPRA). 404 (b)(1) not signed by Corps until EPA modification is approved and published.

Literature Cited

US Army Corps of Engineers (USACE). 2008. Performance Evaluation of the New Orleans and Southeast Louisiana Hurricane Protection System. Final Report of the Interagency Performance Evaluation Task Force (IPET). Volume 1-Executive Summary and Overview. June.

Port of New Orleans. 2008. "Port of New Orleans Overview." Accessed 15 September, 2008 from http://www.portno.com/pno_pages/about_overview.htm.

Part II

Environmental Protection Agency Region 6 Responsiveness Summary
March 2009

Addressing Comments on the Corps of Engineers' Request to Amend the 1985 Bayou aux Carpes 404(c) Determination

On January 14, 2009, EPA posted a notice in the Federal Register (74 FR 2072-2073) announcing a public comment period on a request to the Environmental Protection Agency (EPA) by the New Orleans District of the U.S. Army Corps of Engineers (Corps) to amend the 1985 Bayou aux Carpes Clean Water Act (CWA) Section 404(c) determination. The comment period was subsequently extended and was open for a total of 40 days. A public hearing was held on this matter on February 11, 2009.

Thirteen people spoke at the hearing and written comments were received from 25 individuals and organizations. A transcript of the hearing is available at the following website:

http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/BPublicHearingTranscript11feb09.pdf

Copies of the written comments are available at:

http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/EPACommentsMerged.pdf

The public hearing provided an opportunity to raise issues associated with two matters. The broader topic is the Corps' Draft Individual Environmental Report (IER) # 12, regarding plans for providing upgraded hurricane and storm damage risk reduction for a portion of the West Bank and Vicinity Hurricane Protection Levee system. Those comments have been provided to the Corps. The second topic concerned a subset of the work described in Draft IER # 12, i.e., whether EPA should grant the Corps request to modify the CWA Section 404(c) designation to accommodate construction of a floodwall in that area. This document provides a summary of the major issues brought to our attention on the latter issue relating to the Corps request to modify the Bayou aux Carpes CWA Section 404(c) designation.

A reproduction of all the comments on both topics and an annotated set of responses are provided in Appendices B and C at the end of this document.

Policy Concerns

Many comments stated opinions as to whether the Clean Water Act Section 404(c) modification should either be granted or denied. Some comments in support of maintaining the current restrictions invoked by the CWA Section 404(c) designation were based on the position that such designations should not be subject to change or should not be changed without a showing of urgent need and consideration of less damaging alternatives. One person pointed out that taxpayer funds were used to purchase much of the Bayou aux Carpes CWA Section 404(c) site, that its maintenance is thus now a matter of public trust, and that no modification should be considered. The comments on the other side of the issue, in support of modifying the designation, focused on finding a balance between adequate public safety and economic risk reduction on the one hand and minimized environmental damage on the other.

EPA has invoked the provisions of the CWA Section 404(c) in only 12 instances nationally and only once in Louisiana. These designations are reserved for special circumstances and/or unique wetlands. When, over the last three decades, EPA has infrequently invoked this provision, it has certainly not been with an expectation that modifications would be required in the future; the intent has been to make a lasting determination the first time. Nothing is immutable, however, and such designations have been modified, though only on a very few occasions and for extraordinary situations when practicable alternatives were not available and impacts were minimal.

When CWA Section 404(c) restrictions were placed on the Bayou aux Carpes site in 1985, EPA was responding to a federally assisted flood control project that would have resulted in the unacceptable adverse effects to about 3,000 acres of wetlands providing substantial fisheries, wildlife, water retention, pollutant filtering, and recreational values to the Barataria watershed. However, at the time of the Bayou aux Carpes CWA Section 404(c) designation in 1985, we did not envision either the current post-Hurricane Katrina/Rita environmental and social circumstances or the degree of coastal land loss we now face. These are extraordinary times and this is a weighty social issue with the potential for significant ecological implications. Accordingly, we have expressed to the Corps a willingness to consider the merits of the request to modify the existing Bayou aux Carpes CWA Section 404(c) designation to accommodate the construction of the West Closure Complex. However, we do not intend for this re-evaluation to have precedent-setting implications for any other current or future CWA Section 404(c) designations or modifications. Each CWA Section 404(c) designation represents a unique situation that responds to a specific set of parameters unlike any other. Any future requests for modifications to CWA Section 404(c) actions would be subject to an individual site-specific review by EPA.

As we evaluate the Corps' modification request for this case, EPA will consider whether the Corps' proposal for the West Closure Complex alternative has avoided and minimized the potential for negative impacts on the CWA Section 404(c) site to the maximum extent practicable; evaluate methods of mitigating or compensating for unavoidable adverse impacts; and determine whether the proposed action will jeopardize the ecological functions and values upon which the original designation was based. The modification request has posed quite a challenge and we appreciate the

assistance provided by the Corps, the interagency review team, the IER # 12 stakeholder group, and the comments we have received during the public review.

Summary of Other Comments

Many of the other comments we received raised the following four groups of issues:

1) A project design alternative should be considered that would avoid all impacts to the Bayou aux Carpes Section 404(c) area by building the floodwall out into the Gulf Intracoastal Waterway (GIWW). These comments contend that Draft IER # 12 failed to adequately consider that alternative and that EPA should thus deny the modification request.

2) A detailed mitigation plan (including indirect, secondary, and cumulative impacts) should be provided in the Corps' Draft IER # 12. These comments contend that EPA should deny the modification request because it lacks such a plan.

3) Mitigation and augmentation features should be thoroughly researched and planned.

4) A long-term monitoring plan should be developed for the Bayou aux Carpes CWA Section 404(c) area.

Response to Detailed Comment Group 1:

EPA Region 6 agrees that potential alternatives that would avoid all impacts to the Bayou aux Carpes CWA Section 404(c) site warrant consideration. In response to an EPA Region 6 request, the Corps provided a detailed response, attached as Appendix A. The response is largely based on engineering capabilities and specific Corps project authorities. Though EPA will certainly review and evaluate this information but will also give substantial deference to the Corps' engineering expertise and views of its legal authority.

As further background, EPA Region 6 played a key role in assisting the Corps in evaluating the ecological risks associated with the leading project alternatives during the project planning phase. At an earlier point in the planning process, the Corps' preferred alternative included a floodwall bisecting the Bayou aux Carpes CWA Section 404(c) site. Along with the National Park Service (NPS), EPA Region 6 suggested a conceptual alternative, which the Corps subsequently designed and which is now known as the West Closure Complex alternative. The interagency review team conducted a detailed comparison of the environmental impacts of the leading alternatives and concluded that the West Closure Complex alternative was preferable. The Corps reviewed and adopted the conclusions of the natural resource agencies and determined that the West Closure Complex option would meet the cost, social, and engineering risk and reliability criteria. That alternative became the Corps' current preferred alternative, the West Closure Complex alternative.

Once the West Closure Complex alternative became the preferred design, EPA asked the Corps to consider any siting or design options that could reduce the environmental impacts even more. One suggestion was to build the floodwall in the same alignment

but along the edges of the GIWW and off the boundary of the Bayou aux Carpes CWA Section 404(c) site. A number of environmental organizations also focused on this issue, as reflected in this comment and discussed by the Corps in Appendix A.

Response to Detailed Comment Group 2:

The second issue relates to the alternative procedures approved by the Council on Environmental Quality for complying with the provisions of the National Environmental Policy Act for the entire Greater New Orleans Hurricane and Storm Damage Risk Reduction System, i.e., for all IERs. To expedite project planning and implementation, those procedures allow the Corps some latitude in proceeding with detailed construction design prior to completing mitigation planning. However, the Corps has made a firm commitment to EPA to fund and implement mitigation measures. In light of the special significance of the CWA Section 404(c) designation, the Corps has agreed that it would be appropriate to incorporate additional environmental augmentation measures. The Corps' modification request letter to EPA may be found at the following website:

http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/ModificationLetterToEPA4Oct08.pdf

The following passage from IER # 12 (Chapter 7, page 159) provides an explanation of the alternative procedure with regard to mitigation planning:

> Though mitigation for unavoidable adverse impacts due to the proposed action presented within this IER is only briefly discussed, mitigation for unavoidable impacts to the human and natural environment described in this and other IERs will be addressed in a separate mitigation IER as per the alternative NEPA arrangements implemented in March 2007. The CEMVN has partnered with Federal and state resource agencies to form an interagency mitigation team that is working to assess and verify these impacts, and to look for potential mitigation sites in the appropriate hydrologic basin. This effort is occurring concurrently with the IER planning process in an effort to complete mitigation work and construct mitigation projects expeditiously. As with the planning process of all other IERs, the public will have the opportunity to give input about the proposed work. These mitigation IERs will, as described in chapter 1 of this IER, be available for a 30-day public review and comment period.
>
> A complementary comprehensive mitigation IER or IERs will be prepared documenting and compiling these unavoidable impacts and those for all other proposed actions within the HSDRRS that are being analyzed through other IERs. Mitigation planning is being carried out for groups of IERs, rather than within each IER, so that large mitigation efforts could be taken rather than several smaller efforts, increasing the relative economic and ecological benefits of the mitigation effort.
>
> The forthcoming mitigation IER will implement compensatory mitigation as early as possible. All mitigation activities will be consistent with standards and policies established in appropriate Federal and state laws, and the CEMVN policies and regulations.

Response to Detailed Comment Group 3:

In response to the third comment group, EPA Region 6 is in complete agreement about the critical importance of developing and implementing appropriate mitigation and augmentation features. As a means to this end, the Corps has involved a team of State

and federal agencies with natural resource expertise to advise them on the study designs and data analyses for the mitigation and augmentation features.

Some hydrologic and water quality data collection work will extend over several hydrologic periods. While some field analyses have begun, other data collection is expected to continue for at least year, and possibly longer, depending on the findings. The advisory team is simply not comfortable in making recommendations regarding hydrologic and ecological modifications to a wetland of national significance without further study. EPA Region 6 trusts that the Corps will continue to work with the advisory team in good faith on this adaptive approach, as outlined in the November 4, 2008 modification request (http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/ModificationLetterToEPA4Oct08.pdf).

A considerable amount of field work has already been initiated and some aspects have been completed. As an example, the Corps' Engineering Design and Research Center (ERDC) is currently studying hydrology and inundation data in an effort to analyze mitigation and augmentation features that might improve circulation throughout the site, e.g., gapping canals and re-establishing historic tidal connections.

Another example is the work lead by the U.S. Fish and Wildlife Service (USFWS), with participation by an interagency team, to analyze the habitat impacts of the proposed alternative. Two methodologies were employed to quantify changes in habitat quality and quantity that are projected to occur as a direct result of the proposed 4200-foot floodwall to be constructed along the GIWW. The Wetland Value Assessment methodology was employed for the cypress-tupelo swamp habitat and the Habitat Assessment Methodology was employed for the upland and bottomland hardwood habitat over the maximum acreage expected to be effected (9.6 acres). Specific recommendations to protect flora and fauna were also prepared by the USFWS and documented in the Fish and Wildlife Coordination Report for IER # 12 (http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/IER12FinalFWCAR2.pdf).

Field work still in the planning phase focuses on the flotant marsh habitat and will be lead by the U.S. Geological Service, in consultation with the Corps, NPS, USFWS, EPA Region 6, and the interagency team. Data will be collected to assist the team in evaluating the potential effects of allowing surface water from the Estelle Outfall Canal to circulate through the marsh. As a contingency, the Corps is incorporating into the project design a control structure at the junction between the Estelle Outfall Canal and the GIWW in case it is determined that these flows should be limited under certain hydrologic conditions. Monitoring stations will be established to gain an understanding of the hydraulic gradients across the marsh.

The surface water studies include a review of data collected by Jefferson Parish at the Estelle pumping station and canal and some new post-rainfall samples will be collected and analyzed for selected parameters. The interagency scientific team has not recommended starting off with a broad sampling spectrum of surface water parameters but with a more narrowly targeted suite of parameters. This recommendation was made based on practical knowledge of the effects of similar sources of surface water flows to the same type of flotant marsh habitat existing within the Jean Lafitte National Historical

Park and Preserve, Barataria Preserve unit, which is adjacent to and hydrologically connected to the Bayou aux Carpes CWA Section 404(c) site.

In addition to the habitat, hydrology, and surface water quality studies of the flotant marsh, the effects of potentially adding nutrients or contaminants from increased stormwater flows through the site from the Estelle Outfall Canal will be assessed, starting with an examination of porewater quality. Sampling bottom sediments over time will provide an indirect method of assessing whether contaminants from stormwater are accumulating, as could tracking macroinvertebrate community composition and analyzing fish tissue contaminant concentrations. Soil characteristics of the flotant marsh will also be analyzed in order to establish a basis for future comparisons and the current marsh type will be classified according to a system devised by scientists from LSU.

The results of the initial study phase will be compared to results from similar marshes, considered to be healthy and productive, within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve, Barataria Preserve unit, as a baseline for comparison.

To complement the characterization and modeling efforts described above, a long-term monitoring plan will be devised and the results will be used to respond to any unanticipated impacts to the site. Since the monitoring plan depends upon the ERDC hydrology studies, details are still pending.

The Corps' Draft IER # 12 (Section 7.1, page 158) describes the mitigation and augmentation feature planning process:

> Mitigation procedures and requirements regarding impacts within the 404c area are being coordinated with the EPA, USFWS, and the National Park Service. Mitigation for all unavoidable adverse impacts to the Bayou aux Carpes CWA Section 404(c) area would occur within the Bayou aux Carpes CWA Section 404(c) area and/or JLNHPP as per agreement with the resource agencies. Initial agency preferred mitigation for the Bayou aux Carpes site includes Chinese tallow tree removal and marsh creation in JLNHPP, but additional coordination is required to determine the best possible mitigation actions. Mitigation projects would be designed and implemented concurrently with the design and construction of the project. Full mitigation within this unique environment may require mitigation in addition to the basic average annual habitat unit method as determined by Wetland Value Assessment (WVA) models used by the USACE in cooperation with the resources agencies (see table 7b). Project feature augmentations would be considered by the mitigation team as they develop a full plan to compensate for any unavoidable impacts. The CEMVN has agreed to work in collaboration with state and Federal agencies to ensure a successful mitigation effort.

Also, the initial study plan recommended by the advisory team, subject to further revision, is described in the following excerpt (IER # 12, Section 7.2, pages 160-162):

> To determine which project augmentations would be most beneficial to the Bayou aux Carpes CWA Section 404(c) area an interagency study effort is being completed to establish existing soil and water-quality conditions in the Bayou aux Carpes CWA Section 404(c) wetlands, as well as prevailing patterns of inundation within and adjacent to the 404c area. The wetlands in the Bayou aux Carpes CWA Section 404(c) area are currently isolated from direct inflow of storm water runoff and natural tidal exchange in some locations because of levees and dredge material banks. Upon completion of the

interagency study storm water runoff may be directed from the Old Estelle Pump Station through and across the wetlands and some tidal exchange may be permitted in certain areas to restore the natural hydrology. It is unknown what impact this change in water quality and hydrology may have on the wetlands. The wetlands consist of floating marshes, with a predominately organic substrate, and forested wetlands, some of which occur within the floating marshes (see yhe Bayou aux Carpes CWA Section 404(c) area description in section 3.2.2).

Studies are underway at the USACE Engineering Research and Development Center (ERDC) in Vicksburg, Mississippi, the Vicksburg USACE District, and at the United States Geological Survey in Baton Rouge, Louisiana to determine the best possible design to allow for maximized benefit of this work in the Bayou aux Carpes CWA Section 404(c) area. Hydrologic and environmental surveys are ongoing within and adjacent to the 404c to determine the appropriate areas for the proposed dredge material bank gapping within the Old Estelle discharge canal and dredge material bank gapping in other canals and for the removal of plugs or portions of the plugs in Bayou aux Carpes and other canals. In addition, the surveys will determine the appropriate water flow velocities within the Bayou aux Carpes CWA Section 404(c) area so creating the gaps and removal of canal plugs can be properly designed. Additional design work would take into consideration the appropriate nutrient loading levels. These studies will be integrated into the efforts of the Interagency resource team that was formed early in the analysis phase to ensure that the national interest placed on the Bayou aux Carpes site meets the wisest and best use of the area. All actions would be fully coordinated with the EPA and the interagency team and the public before being implemented.

The monitoring of preexisting conditions has three components:

Floating marsh:
Pore water quality will be documented at four locations, near and at some distance from the project area (Figure 14). The two northern most sites are located approximately 50 yards to 100 yards off the dredge material bank. At each marsh sampling site, pore water will be sampled at 15 cm and 45 cm depth for a suite of parameters including low-level nutrients including dissolved inorganic N, ions and dissolved organic carbon. Samples will be taken quarterly, in November of 2008, and in February, late April and August/September 2009.

At these same sites, soil quality (degree of decomposition) will be documented at 5 cm and 15 cm depth (root zone) using the NRCS fiber analysis (see Swarzenski and others, 2005; Figure 14). In addition, soils will be cored with a McAuly auger to a clay layer or 2 meters (whichever is nearer the surface), to evaluate the thickness of the peat layer. Floating marsh type will be determined following the Sasser et al (1996) classification.

Estelle Pumping Station
At the pumping station, one sample of surface water will be collected for analysis of a suite of herbicides, including fipronil and atrazine (Figure 14). Similarly, a surface waterquality sample will be taken in the main canal. These samples will be collected 1-2 days after a major rainfall event.

Inundation, hydraulic gradient
Two stations continuously measuring water level will be established on the property, as per figure 14. An attempt to establish hydraulic gradients will be made by matching up peaks in the water surface during major inundation events, and hydraulic gradients established based on floor elevation.

[Figure on page 162 is not reproduced here]

The data collected throughout these ongoing studies would be compared to similar, pristine, nearby marshes, and would also provide baseline data against which to evaluate

future change.

Once the baseline data set is completed and the results are presented to the Interagency team, the CEMVN in cooperation with the EPA, NPS, USFWS and other members of the Interagency team would determine which project feature augmentations would be beneficial to the 404c area. The ongoing studies to determine the existing hydrology and water and soil conditions within the Bayou aux Carpes CWA Section 404(c) area are considered to be adequate to determine which augmentations would be beneficial. Those beneficial project feature augmentations would then be implemented in partnership with the EPA and the NPS. Though these data are not available within this document, the data and project augmentation implementation plans will be disclosed in future environmental reports prior to any decision being made by the CEMVN District Engineer.

In addition to the ongoing environmental studies, the Interagency team also suggested cypress tree surveys along with eagle, wading bird, and other indicator species surveys should be conducted to indicate habitat quality. Baseline Bald Cypress and wildlife data would also be required. The cypress tree and wild life surveys are under consideration, and survey plans, including specific indicator species, survey frequency, etc., would be determined by the CEMVN in collaboration with the Interagency team and disclosed in future environmental reports.

Response to Detailed Comment Group 4:

As with the previous comment, EPA Region 6 believes that the development of a long-term monitoring plan is a key factor that will contribute to the success of any mitigation and augmentation plans. The same interagency team described above has agreed to help develop such a plan.

Since the complete design of the long-term monitoring plan depends upon the results of the ongoing Corps ERDC hydrology studies, details of the plan are still pending. Initial recommendations being considered include establishing hydrologic gauges and vegetative monitoring plots for seasonal data collection. The goals for this monitoring effort will be to identify temporal changes in hydrologic patterns, vegetative community characteristics, and tree growth rate and regeneration as a result of the Corps project. This will include the effects of the floodwall as well as the mitigation and augmentation features. The long-term monitoring plan will be adaptive in nature, meaning it will be subject to change by the interagency review team along the way, depending on the incremental findings. If implemented mitigation or augmentation features are determined at some point to be ecologically harmful, the Corps has committed to implementing the necessary modifications.

Appended to this document:

Appendix A – GIWW Floodwall Alternative Evaluation
- Corps letter to EPA -- March 26, 2009
- U.S. Coast Guard letter to EPA -- February 23, 2009

Appendix B – Annotated comments
Appendix C – Complete copies of public comments

Part II, Appendix A

U.S. Army Corps of Engineers
Evaluation of a Floodwall in the Bayou aux Carpes 404(c) Site Versus a Floodwall in the GIWW Channel

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF

Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch

Mr. Lawrence E. Starfield
Acting Regional Administrator
Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Starfield:

The purpose of this letter is to respond to questions raised by members of the Environmental Protection Agency (EPA) and some Non-Governmental Organizations (NGO) during the EPA Bayou aux Carpes 404(c) modification request comment period regarding the Gulf Intracoastal Waterway (GIWW) West Closure Complex (WCC) project and the US Army Corps of Engineers' (USACE) request for a modification to the 1985 Bayou aux Carpes Clean Water Act Section 404(c) final determination. The USACE requested a modification to the 1985 Bayou aux Carpes 404(c) final determination to enable construction of the GIWW WCC project, a part of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS). Some of the comments received questioned the necessity of building a floodwall on the previously impacted spoil bank on the edge of the Bayou aux Carpes 404(c) area and stated that the floodwall could be moved into the waters of the GIWW without consequence. Enclosed is the USACE's response to these comments.

As shown in the enclosed response, four alternatives for the Bayou aux Carpes 404(c) floodwall / levee system were considered during the government's evaluation process. Alternative 1 is the proposed action presented in Individual Environmental Report (IER) # 12. Alternatives 2 and 3 are floodwall variations located within the GIWW channel. The final alternative, Alternative 4, considered construction of an earthen levee within the Bayou aux Carpes 404(c) area along the eastern bank line. Alternative 4 was dismissed in the initial screening without further analysis due to the large footprint required for the levee section and the negative environmental impacts to the Bayou aux Carpes 404(c) area associated with it. Each of the floodwall alternatives was evaluated on providing reliable risk reduction against hurricane storm surge by 2011, impacts to the natural and human environment, maintaining a safe channel for navigation, construction complexities, costs, and associated long-term maintenance.

The constriction of the GIWW posed by alternatives 2 and 3 would adversely impact the ability of navigation traffic to reliably and safely pass through this area. Given the proximity of the proposed floodwall to the navigation channel, the high volume of marine traffic in this reach, and the types of commodities being transported, the risk of damage to the HSDRRS would be too great and the danger that a damaged floodwall places on the people of the west bank for these alternatives was determined unacceptable. Furthermore, the increased risk of a catastrophic environmental event given the hazardous nature of some of the commodities being transported daily on the GIWW is unacceptable. A marine mishap along this segment of the channel with a floodwall in the GIWW channel poses a greater risk of environmental damage to the Bayou aux Carpes 404(c) site than does the WCC alternative (Alternative 1). Just last year, a barge accident occurred on the Mississippi River that released over 400,000 gallons of fuel oil. Much of this oil ended up in downstream marshes and National Wildlife Refuges. The effects of that oil spill on the environment will be seen for the next decade. If a similar accident were to occur in the proximity of the GIWW WCC floodwall and the floodwall were damaged, the potential impacts to the people of the west bank, the Bayou aux Carpes 404(c) area, the Jean Lafitte National and Historical Park, and other environmentally sensitive areas would be catastrophic. The US Coast Guard agrees with the Corps assessment that constructing a floodwall in the waterway would increase hazards to navigation and the possibility of a major marine accident. In a letter to the EPA, dated February 23, 2009, the US Coast Guard stated that it objects to the construction of any segment of the GIWW WCC floodwall in the GIWW channel.

Based on the risks associated with floodwall systems constructed in the GIWW channel, it is my determination that the safest and most reliable location to build the GIWW WCC floodwall is along the 100 ft by 4,200 ft previously impacted spoil bank identified as the proposed action for WCC in IER #12.

The EPA, USACE, and our other resource agency partners have closely collaborated on this issue for over a year and a half and have proposed a solution that provides the safest and most reliable system for the people of the area while still preserving the integrity and beauty of the Bayou aux Carpes 404(c) area. The proposed action would be constructed on the previously impacted spoil bank along the eastern edge of the Bayou aux Carpes 404(c) area, would minimize the impacts to the 3,000 acre Bayou aux Carpes 404(c) area and would result in less than 10 acres of unavoidable impacts to the area. The less than 10 acres impacted by the proposed project will be fully mitigated for as discussed in the final Individual Environmental Report that I approved on February 18, 2009. Because of the national significance of the Bayou aux Carpes 404(c) area, the team took additional steps to incorporate project features that will further improve the hydrology of the entire Bayou aux Carpes 404(c) area. Upon completion of the ongoing study and in coordination with the EPA and other resource agencies staff, those augmentations will be constructed.

The USACE recognizes the significance of this issue and greatly appreciates the cooperation the EPA has shown in working with the USACE in our efforts to construct the most reliable hurricane risk reduction system possible. The team's efforts to date

have been nothing short of remarkable and truly reflect the partnership the EPA and the USACE have fostered.

As the EPA understands, there is tremendous urgency to minimize the risk to the public by completing the New Orleans HSDRRS by hurricane season 2011. I am requesting that the EPA evaluate the information provided in this letter and move forward to approve the USACE request to modify the 1985 Bayou aux Carpes CWA Section 404(c) final determination.

If you have any questions or concerns please contact Mr. Gib Owen at: US Army Corps of Engineers, CEMVN PM-R, Attn: Mr. Gib Owen, P.O. Box 60267, New Orleans, Louisiana, 70160-0267. Mr. Owen can be contacted by E-mail: gib.a.owen@usace.army.mil or by phone at (504) 862-1337.

Sincerely,

Alvin B. Lee
Colonel, US Army
District Commander

Enclosure
See page four for copies furnished.

Copies Furnished:

L. D. Stroh
Captain, US Coast Guard
Commander, Sector New Orleans
Staff symbol: spw
1615 Poydras Street
New Orleans, Louisiana 70112-1254

Mr. Garret Graves
Chairman
Coastal Protection and Restoration
Authority of Louisiana
1051 North 3rd Street
Capitol Annex Building
Baton Rouge, Louisiana 70802

US Army Corps of Engineers, New Orleans District
Comparison of Alternatives: Floodwall on shoreline of the Bayou aux Carpes 404(c) site versus a floodwall in the GIWW channel.

INTRODUCTION:

At the February 11, 2009 joint Environmental Protection Agency (EPA)/U.S. Army Corps of Engineers (Corps) hearing on the Corps' request for modification to the Bayou aux Carpes Clean Water Act Section 404(c) Final Determination, several individuals and environmental groups requested that the EPA deny the Corps' request based on the assumption that the proposed floodwall could be constructed outside of the Bayou aux Carpes 404(c) area and in the Gulf Intracoastal Waterway (GIWW) with comparable risk reduction. Some of the speakers questioned whether the Corps had performed adequate studies on the possibility of placing a floodwall into the waterway. Additional comments were received by the EPA during the 404(c) modification public comment period urging that the EPA deny the Corps' request based upon the idea that moving the floodwall into the GIWW channel was a reasonable alternative.

In response to these comments, the Corps maintains that the construction of the floodwall in the GIWW channel is not a reasonable or practicable alternative as discussed in Individual Environmental Report (IER) #12. Although technically possible, issues of public safety, navigation safety, increased risk to the Hurricane and Storm Damage Risk Reduction System (HSDRRS) and substantial increases in cost and schedule all make the placement of the wall into the waterway impractical. The purpose of this response is to demonstrate that all reasonable alternatives were fully considered and evaluated and to document the data and rationale used by the Corps to make the determination that the placement of the floodwall within waters of the GIWW is not a viable alternative.

BACKGROUND:

Comments received at the public hearing suggested that construction of a floodwall in the GIWW channel could be accomplished because the navigable waterway is authorized as a 125 ft wide by 12 ft deep channel while the bank-to-bank width adjacent to 404(c) area is at least 500 ft wide on the surface. The GIWW for the purposes of discussion in this report is defined as the entire waterway (bank-to-bank) as it exists today. Within the GIWW is a federally maintained navigation channel with authorized channel bottom dimensions of 125 ft width by 12 ft depth. At the water surface, the channel has a 350 ft wide required "structure free zone" defined by the "structure limit lines" which extend 175 ft on either side of the channel center.

While the authorized channel dimensions and corresponding required "structure free zones" are defined, it is important to note that these boundaries typically have no physical constraints in regards to navigable channels - similar to the interstate highway system which has defined lanes with markers and boundaries, but often no physical constraints. On the interstate, vehicles controlled by humans for various reasons lose control and

move beyond these boundaries, often with catastrophic results. The same is true for marine traffic on navigable waterways. One of the Corps' primary missions is to ensure that the nation's navigation industry has viable means of commerce that meets the needs of the nation. A critical feature of this mission is to ensure the safety of the users of the channel as well as the general public, their property, and the infrastructure in the vicinity of any federally maintained navigation channel.

The GIWW is a heavily traveled inland commercial waterway that links over 30 ports along the Gulf Coast from Texas to Florida with connections to the Mississippi River via 3 navigation locks in the New Orleans area: Harvey, Algiers and Inner Harbor Navigation Canal. This section of the waterway services the critical transportation needs of the petrochemical and other industries vital to the United States economy, defense and infrastructure. Over 25 million tons of cargo and 35,000 vessel bottoms travel this section of the waterway yearly. Nearly 70% of the 25 million tons are volatile products of the petrochemical industry: benzene, crude oil, gasoline, jet fuel, organic solvents, propane, butane, naptha, fertilizers and poisons. On average, 30 commercial barge tows navigate through the project area of the GIWW each day, all under the control of humans operating and piloting the vessels in all types of weather conditions.

In addition to the critical navigation function of this waterway, the Algiers and Harvey canals also serve as the main drainage conduit for the highly urbanized areas of the west bank collecting the discharge of nine interior drainage pumping stations with a total discharge capacity of over 28,000 cubic feet per second (cfs) . These discharges are directed through the GIWW and into the surrounding lakes and coastal marshes. Recreational boaters and commercial interests also use the waterway to access a variety of water bodies in the area. All of these factors were considered in the evaluation and development of the proposed alternatives.

ALTERNATIVES:

Four alternatives for the Bayou aux Carpes 404(c) floodwall / levee system were considered during the government's evaluation process. Three of the alternatives were screened out as not being reasonable or practicable at various stages of the plan formulation phase due to reasons discussed below. The first alternative is the proposed action presented in the IER #12 where the floodwall is placed within a 100 ft by 4,200 ft previously impacted spoil bank on the eastern edge of the Bayou aux Carpes 404(c) area. The second alternative was placement of a floodwall in the GIWW 50 ft from the edge of the bank of the Bayou aux Carpes 404(c) area protected to the maximum extent practical with a series of pipe pile dolphins that would extend into the GIWW approximately 50 ft beyond the floodwall. The third alternative follows the same alignment as Alternative 2 but would be a constructed earthen embankment in the GIWW in lieu of pipe pile dolphins. The final alternative considered was to construct an earthen levee within the Bayou aux Carpes 404(c) area along the eastern bank line. This alternative was dismissed without further evaluation due to the large footprint required for the levee section and the negative environmental impacts associated with it. All of the alternatives were initially screened for:

- The ability of the completed wall to provide reliable surge protection.
- Environmental impacts to the Bayou aux Carpes 404(c) area.
- Impacts to the natural and human environment.
- Impacts and concerns to navigation, especially in light of the fact that the structure would be constructed where 3 navigable waterways converge.
- Construction complexity and construction safety.
- Construction schedule
- Construction costs
- Long term maintenance

Hurricanes Katrina and Rita in 2005 and Gustav and Ike in 2008 emphasized the importance and urgency for considering all reasonable scenarios and investigating the most reliable, environmentally acceptable and constructible plan to reduce the risk to the residents and businesses for the West Bank area.

Each alternative was developed in sufficient detail to identify its relative strengths and weaknesses. Schematic typical sections presented herein are developed to a level of detail sufficient to generate preliminary quantities and costs. Detailed hydraulic modeling has not been performed and is not necessary for this analysis of potential wall locations. It is commonly understood any alternative that reduces the cross-sectional area of the channel will necessarily negatively impact the storm drainage function of the canals with higher stages upstream. Thus the comparison and selection of alternatives here is based on the preliminary design of each alternative to date as is common and acceptable practice in the field of engineering.

Safety is paramount in selecting an alternative for final design and construction. First and foremost, the selected plan must reliably reduce risk to the people of the United States who live and work behind the HSDRRS. Safe navigation for commercial and recreational craft is included in that mandate. Other factors considered include impacts to environmental integrity, construction costs, operational and maintenance costs, and construction duration.

DESCRIPTION AND DISCUSSION OF THE ALTERNATIVES:

<u>Floodwall Alternative 1</u>: Floodwall constructed on the previously impacted spoil bank within the 100 ft by 4,200 ft corridor along the eastern edge of the Bayou aux Carpes 404(c) area.

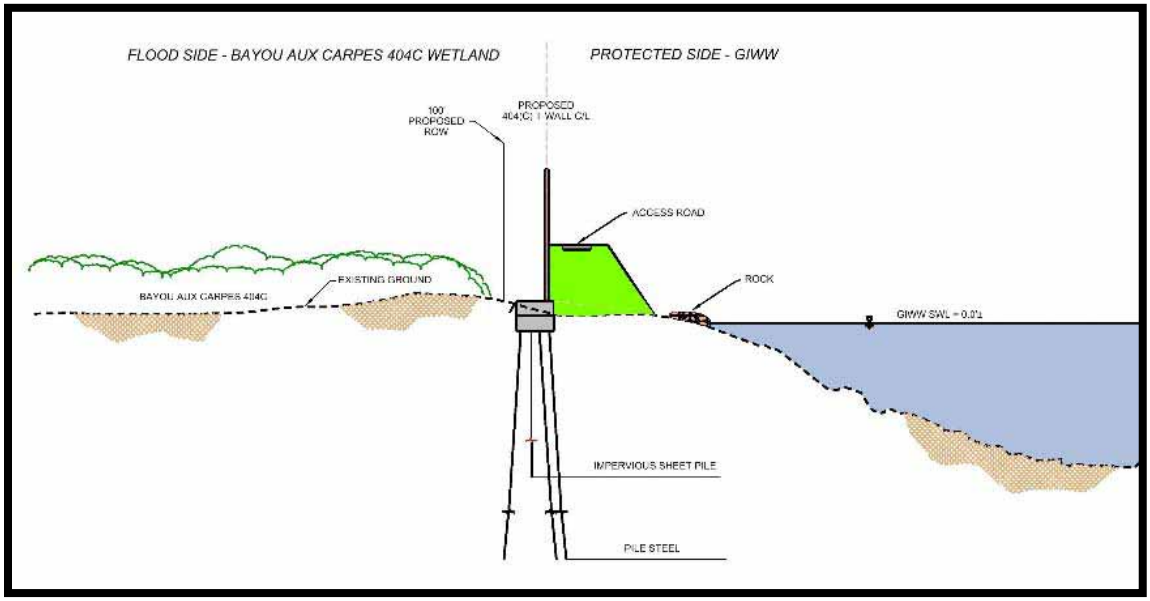


Diagram 1

Alternative 1 is the recommended proposed action (see Diagram 1). Under this alternative, the floodwall would be constructed on the previously impacted spoil bank within the Bayou aux Carpes 404(c) area. The design would consist of a T-wall design to minimize the footprint of the structure in the Bayou aux Carpes 404(c) area and foreshore protection using 650 lb stone in the GIWW adjacent to the Bayou aux Carpes 404(c) area. The T-wall would tie into the proposed flow control structure at the end of the Old Estelle Outfall Canal to the north and the closure and pump station complex that would cross the GIWW to the south. The T-wall would be constructed within the 100 ft by 4,200 ft corridor along the eastern edge of the Bayou aux Carpes 404(c) and include an earthen berm with an access road for maintenance and inspection purposes. The floodwall would be a cast-in-place reinforced concrete T-wall designed to elevation +16.0 ft (NAVD 88 2004.65) founded on three rows of steel H-piles. Preliminary design calculations indicate the concrete stem would be 14 ft tall and 2 to 3 ft thick, while the concrete slab would be 3 to 5 ft thick and 20 to 25 ft wide. A continuous steel sheet pile wall will be provided beneath the base slab for seepage cutoff purposes. Construction of the proposed action would impact no more than 9.6 acres within the Bayou aux Carpes 404(c) boundary. The Corps is committed to further reducing this footprint to the greatest extent practicable during the final design phase of this project.

With this proposed action, protection of the wall from potential barge impacts would be provided by the earthen berm and access road along the existing bank line constructed to elevation +8 ft (NAVD 88 2004.65) on the protected side of the floodwall. The

location of the wall away from the waterway's edge increases the safety of the wall against potential catastrophic barge tow impacts by absorbing the energy of the impact in the embankment, thus stopping the tow before it contacts the wall. Placement of the protected earthen berm outside the channel results in no constriction of the waterway as a storm water evacuation route. The reliability of the HSDRRS is highest for this alternative and the potential for damage to the protected side of the floodwall by the daily commercial marine traffic is lessened.

The placement of the wall within the 100 ft by 4,200 ft corridor on the previously impacted area of the Bayou aux Carpes 404(c) area, along with the commitment by the Corps to augment the design as necessary to enhance the hydrology of the Bayou aux Carpes 404(c) area to offset any potential impacts due to construction, provides the most practical approach from an environmental perspective while ensuring the 100-yr level of risk reduction is accomplished and completed expeditiously. Potential augmentation as discussed in IER #12 includes efforts to gap the existing spoil banks along the Old Estelle Outfall Canal and at the southern terminus of Bayou aux Carpes are under study by the Corps in cooperation with the EPA and other stakeholders to ensure that the unavoidable impacts to the 404(c) area are minimized to the greatest extent practicable.

Of the alternatives considered, Alternative 1 provides the greatest navigation safety because it provides greater distance between the floodwall structure and the typical path traveled by barge tows without encroachment or narrowing of the GIWW. It also eliminates the need for other appurtenant structures along the bank which could result in catastrophic impacts including environmental damages to people and the surrounding marsh system should an errant barge tow collide with the pipe pile dolphin protection system.

<u>Floodwall Alternative 2</u>: Floodwall constructed in the water along the eastern edge of the Bayou aux Carpes 404 (c) areas. Pipe pile dolphins added for protection.

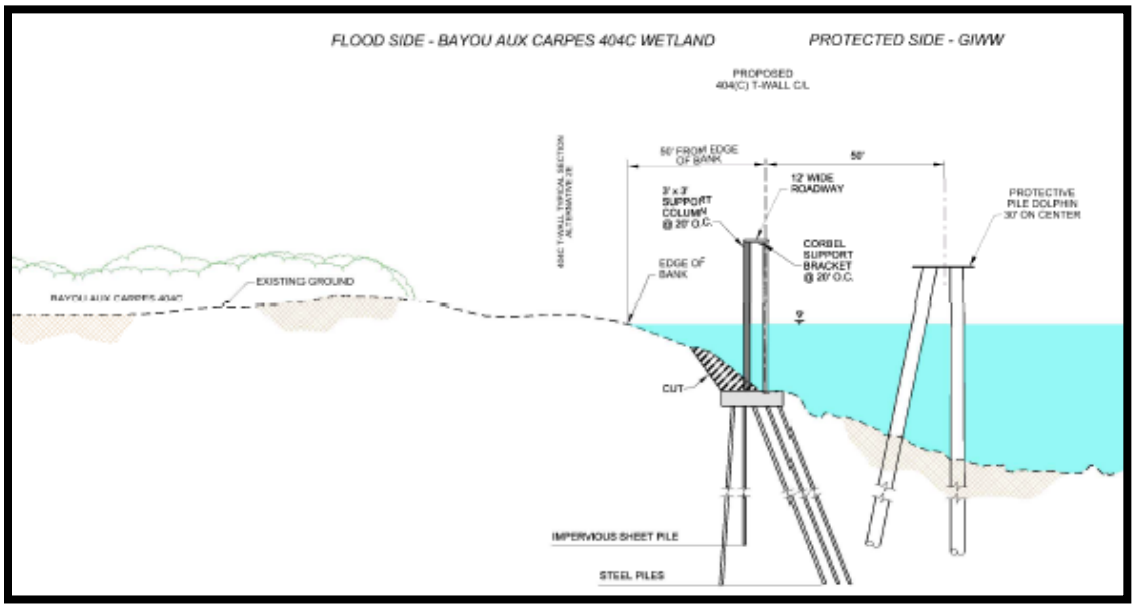


Diagram 2

In Alternative 2, the floodwall would be constructed in the water of the GIWW without affecting the surface of the previously impacted spoil bank of the Bayou aux Carpes 404(c) area (see Diagram 2). Preliminary analysis shows that the floodwall would be a cast in-place T-wall designed to elevation +16.0 ft (NAVD 88 2004.65) founded on four rows of steel H-piles. The concrete stem would be 26 ft tall and 3 to 5 ft thick, while the concrete slab would be 4 to 6 ft thick and 25 to 35 ft wide. A continuous steel sheet pile wall would be provided beneath the base slab for seepage cutoff purposes and extended 5 ft past the critical failure plane (elevation -30 ft (NAVD 88 2004.65)) per the latest HSDRRS Design Guidelines. A 12-ft-wide roadway supported by brackets and columns placed approximately 20 ft on center would be incorporated into the design for maintenance access and inspection purposes. The floodwall would be placed in the water of the GIWW 50 ft from the edge of the bank of the Bayou aux Carpes 404(c) area.

A system of pipe pile dolphins would be required to provide a substantial degree of protection to the protected side of the floodwall from daily commercial marine traffic. Based on a preliminary analysis and in accordance with the minimum requirements of the HSDRRS Design Guidelines, a row of about 140 pipe pile dolphins spaced at intervals of no more than 30 ft would be necessary to block vessels from impacting the floodwall. These protective dolphins would be located approximately 50 ft toward the channel from the wall to allow for underground pile clearances. It is important to note, however, that this is only a cursory analysis of required protection based on minimum requirements. Data obtained from the Algiers and Harvey Locks show that vessels traveling through the area weigh as much as 7,800 tons and may be traveling at 8 mph (per Gulf Intracoastal Canal Association). Impact forces calculated from the American Association of State Highway and Transportation Officials (AASHTO) Commentary for Vessel Collision

Design show that impacts on the dolphins required in Alternative 2 could be significantly higher than those specified by the minimum design criteria. As a result, the appropriate design loads and features necessary to provide an acceptable level of safety comparable to the protection offered by Alternative 1 remain undetermined. For the purposes of this analysis, it is sufficient to note that the resulting additional cost and design complexity further diminishes this alternative when compared to others.

Direct environmental impacts to the previously impacted spoil bank of the Bayou aux Carpes 404(c) area under this alternative would be eliminated. Project feature augmentations in the Bayou aux Carpes 404(c) area would not be required since there are no impacts to the 404(c) area. Surface hydrology would be maintained by a small channel between the bank and the floodwall on the flood side of the floodwall. This small channel would remain connected to the Old Estelle Outfall Canal to the north and the GIWW just south of the gate structures.

Alternative 2 does have the greatest potential for catastrophic human and environmental impacts from a spill that could be caused by a barge tow impacting the dolphin system and floodwall. Safety is of particular concern with this alternative which has been determined to be unacceptable to the US Coast Guard (USCG). The pipe pile dolphins constructed in the GIWW to provide floodwall protection would be exposed to the frequent barge tows that travel the waterway on a daily basis. The contents of navigation traffic in this area consist of many hazardous materials, and a collision impacting the wall and its protective structure creates the potential for severe negative environmental impacts on the sensitive 404(c) ecosystem, and surrounding businesses and residents. Both, the USCG, the federal agency responsible for navigation waterway safety, and the Gulf Intracoastal Canal Association representing the waterway users have expressed serious concerns on the severe navigation safety hazard presented by this alternative. As stated by Mr. Raymond Butler of the Gulf Intracoastal Canal Association in an e-mail to EPA, dated February 18, 2009, "This portion of the GIWW is one of the highest traveled reaches of the waterway, moving over half the total tonnage of the entire 1,300 mile long waterway. Nearly 70 million tons per year of petroleum, petrochemicals, chemical products and other bulk freight are moved on the waterway here. Most of this cargo is hazardous in nature and would pose significant environmental risk to this area should a barge incident be incited by the presence of this floodwall and its associated restrictive structures. Risks to navigation safety, the environment, and the public would be unnecessarily increased due to the presence of the supporting structures required by the proposed design change."

Construction of the floodwall in the channel under this alternative is more complex than the other alternatives considered. The proposed construction would be accomplished by means of an extensive internally-braced cofferdam system requiring unwatering of the cofferdam to provide a dry working area for the construction of the T-wall. Additionally, because the cofferdam would be in the proximity of the navigation channel, a barge protection system would be necessary to ensure the safety of the workers. This protection system would consist of the permanent dolphin system or a flexi-float barge system equipped with energy absorption devices. The protection system would need to be

constructed prior to commencing work on the T-wall construction within the cofferdam, pushing out the construction schedule significantly. Also, even with a substantial protection system in place, there will remain some risk of a major barge impact into the cofferdam causing a catastrophic loss of life of those working within the cofferdam. Construction within the cofferdam would be staged from floating plants, greatly increasing the construction duration. The cofferdam would be removed upon completion of the floodwall.

<u>Floodwall Alternative 3</u>: Floodwall constructed in the water along the eastern edge of the Bayou aux Carpes 404(c) area. Man-made bank line and berm added for protection.

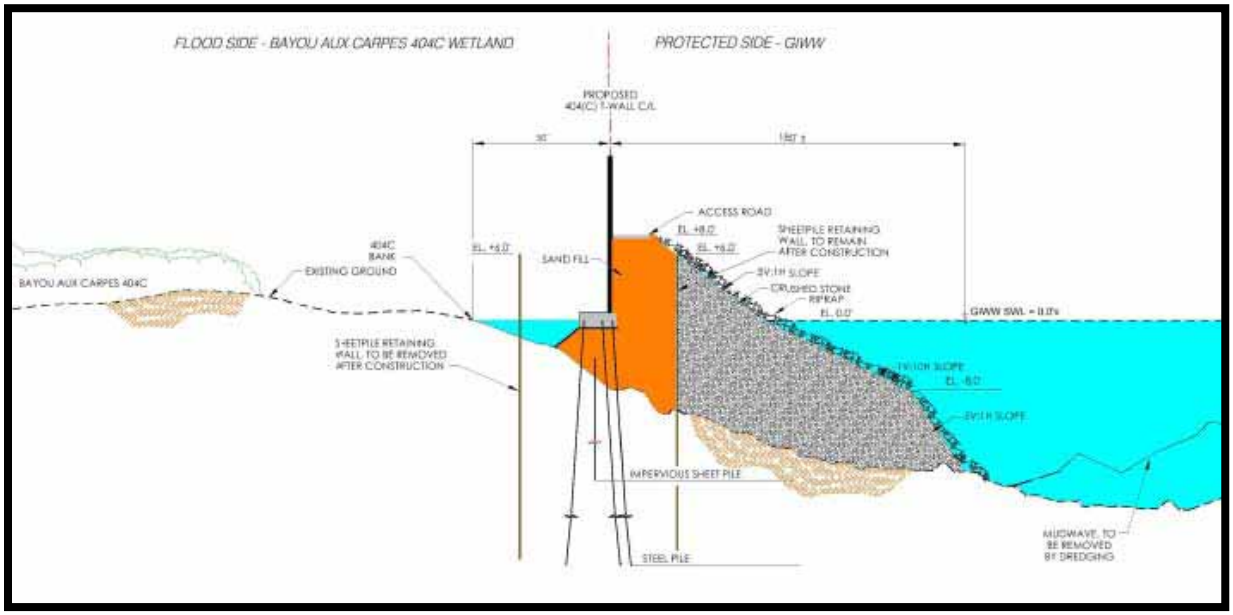


Diagram 3

Alternative 3 would be constructed on a man-made sand/stone embankment constructed in the GIWW along the eastern edge of the Bayou aux Carpes 404(c) area without affecting the surface of the previously impacted spoil bank of the Bayou aux Carpes 404(c) area (see Diagram 3). Like Alternative 1, a floodwall would be continuously protected from potential barge impacts by the man-made embankment. The floodwall would utilize a similar design as Alternative 1 and be a cast in-place T-wall designed to elevation +16.0 ft (NAVD 88 2004.65) founded on three rows of steel H-piles. Additional forces imposed on the piling from the embankment placed in the water will require that the steel H-piling be substantially increased in length from Alternative 1 for each of the piling driven. The concrete monolith would be similar to Alternative 1. A continuous steel sheet pile wall would be provided beneath the base slab for seepage cutoff purposes. The man-made embankment on the channel side of the wall would consist of sand fill placed between the T-wall and a separate sheet pile retaining wall, while a "67" type gradation of stone would be used for the embankment on the channel side of the sheet pile retaining wall. A minimum 2,200 lb stone cover would be placed over the "67" type gradation stone and sand to prevent erosion. Once the structure is complete, additional lifts of the 2,200 lb stone would be necessary to maintain the embankment design elevation. Because of the substantial amount of fill being placed in the channel, additional engineering analysis and modeling would be needed to quantify the potential for long term settlement, differential settlement, and lateral movement of the soil. Experience and knowledge in working in similar geomorphologic conditions indicates that the potential movement and/or settlement of materials could jeopardize the integrity, stability, and safety of the HSDRRS, and poses an unacceptable risk to the reliability of the project.

While this alternative would remove the direct impacts to the 100 ft wide by 4,200 ft long construction corridor located on the previously impacted spoil bank of the Bayou aux Carpes 404(c) area, it does have additional environmental impacts not present in Alternative 1. Construction of the man-made embankment in the GIWW would require the relocation of the channel further to the east from the Old Estelle Outfall Canal approximately 2,000 ft south towards the intersection with the Algiers Canal. This shift would be necessary for navigation as well as to maintain the cross section of the existing channel. The relocation of the channel would require the dredging of the Hero Cut. This dredging would have direct and permanent impacts on the island at the intersection of the Algiers and Harvey canals. Additionally, the material dredged from this area would be suspect due to the proximity of a barge cleaning and painting operation just across the canal. Based upon preliminary investigations by the Corps, this island is considered to pose a high risk of containing contaminated or hazardous substances due to the industrial complexes that have been operated in the area for years. Additionally, there are a number of abandoned barges in this area that are likely to pose a risk of contamination if disturbed. It is the policy of the United States Government to avoid areas that contain Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (formerly known as Superfund) regulated substances. Furthermore, the clean up of any hazardous substances would be the responsibility of the State of Louisiana acting as the non-Federal sponsor for this project. The disturbance of this site would likely lead to an extended delay in the construction of the project, thus delaying hurricane and storm damage risk reduction for the people of the West Bank for many more years. Augmentations in the Bayou aux Carpes 404(c) area would not be required for Alternative 3 since no impacts the 404(c) area would occur.

Impacts and concerns for the navigation industry under this alternative would be those associated with the construction and not the permanent feature since the channel would be modified as necessary to allow for safe navigation passage and drainage.

Construction of the floodwall in the channel under this alternative is more complex than Alternative 1, but has fewer complexities than Alternative 2. Construction would begin with the dredging necessary to establish the new navigation and drainage channel. This would be contingent upon environmental soil sampling and a determination that the material would be suitable for normal dredge material disposal. Construction of a cofferdam approximately 100 ft from the existing bank line of the 404(c) area would closely follow the relocation of the channel. The cofferdam would be similar to the cofferdam proposed for Alternative 1. Sand would be placed in the interior of the cofferdam to elevation+2.0 ft (NAVD88 2004.65) while small stone would be placed on the exterior of the cofferdam to elevation+2.0 ft (NAVD88 2004.65) to stabilize the cofferdam wall. Because of the weight of sand and stone that would be placed, a considerable amount of consolidation and lateral spread of the underlying soft, organic soils would occur, creating a "mud wave" within the GIWW. Additional dredging will be necessary to remove this "mud wave" during placement of the sand and stone material to maintain the authorized navigation channel. Because of the consolidation and lateral spread, multiple additional lifts of sand and stone would be necessary to stabilize the

material at elevation+2.0 ft (NAVD88 2004.65) so that construction of the T-wall could commence. As with Alternative 2, because the cofferdam would be in the navigation channel, a barge protection system would be necessary to ensure the safety of the workers. This protection system would consist of a protective dolphin system or a flexi-float barge system equipped with energy absorption devices. The protection system would need to be constructed prior to commencing work on the T-wall construction within the cofferdam, pushing out the construction schedule significantly. Also, even with a substantial protection system in place, there will remain some risk of a major barge impact into the cofferdam causing a catastrophic loss of life of those working within the cofferdam. Construction within the cofferdam would be staged from floating plants, greatly increasing the construction duration. The cofferdam will be removed upon completion of the floodwall.

<u>Earthen Levee Alternative 4</u>: Earthen levee constructed within the Bayou aux Carpes 404(c) along the eastern edge.

Alternative 4 would involve the construction of an earthen levee within the Bayou aux Carpes 404(c) area in lieu of the floodwall. The required footprint of the levee and berms within the Bayou aux Carpes 404(c) area was estimated to be over 300 ft wide by 4200 ft long and would require placement of material outside of the previously impacted spoil bank and on the floatant marsh itself. Because Alternatives 1, 2 and 3 involved less environmental impacts to the 404(c) area, Alternative 4 was eliminated from consideration without further analysis.

COSTS, CONSTRUCTION DURATION AND OPERATION AND MAINTENANCE COSTS:

Preliminary costs, construction durations and operation and maintenance (O&M) costs are provided for comparison purposes.

Alternative	1	2	3	4
Estimated Initial Construction Cost	$87 Mil	$251 Mil	$215 Mil	Eliminated
Construction Duration (months)	18	24	28	
Estimated Annual O&M Costs:				
Floodwall	$7,000	$7,000	$7,000	
Maintenance Road	$2,750			
Foreshore Dike	$21,000			
Roadway, Bracket & Columns		$20,000		
Pipe Pile Dolphins		$100,000		
Rock Berm & Maintenance Access			$200,000	
TOTAL ANNUAL O&M:	$30,750	$127,000	$207,000	

SUMMARY:

The Corps evaluated a number of alternatives for the Bayou aux Carpes 404(c) area. Three alternatives for the construction of a floodwall along the eastern edge of the Bayou aux Carpes 404(c) area were considered in sufficient detail to determine their viability. Alternative 1 is the proposed action presented in the Individual Environmental Report #12 where the floodwall is placed within a 100 ft by 4,200 ft corridor of the Bayou aux Carpes 404(c) area. The second alternative was placement of a floodwall in the GIWW 50 ft from the edge of the bank of the Bayou aux Carpes 404(c) area protected to the maximum extent practical with a series of pipe pile dolphins located in the GIWW approximately 50 ft beyond the floodwall. The third alternative follows the same alignment as alternative 2 but would be protected by a constructed embankment in the GIWW. All three of the floodwall alternatives were fully evaluated considering the following:

- The ability of the completed wall to provide reliable surge protection.
- Environmental impacts to the Bayou aux Carpes 404(c) area.
- Impacts to the human environment.
- Impacts and concerns to navigation, especially in light of the fact that the structure would be constructed where 3 navigable waterways converge.
- Construction complexity and construction safety.
- Construction schedule
- Construction costs
- Long term maintenance

The discussion of alternatives describes the relative strength and weaknesses associated with each. After review of all aspects and effects of the alternatives considered, Alternative 1 was selected as the recommended proposed action because it was determined to be the safest and most reliable location to build a floodwall. This alternative has minimal impacts to the Bayou aux Carpes 404(c) area (which would be fully mitigated), offers project augmentation features that would further improve the hydrology of the entire Bayou aux Carpes 404(c) area, is the most cost effective, practical alternative for the GIWW West Closure Complex, and has the shortest construction schedule.

Alternatives 2 and 3, which include construction of a floodwall system in the GIWW, have inherent risk and safety issues that are unacceptable to the Corps. These alternatives pose long-term risk of catastrophic failures and a hazardous condition given the probability for vessel collisions with the floodwall due to its placement in close proximity to a Federal navigation channel. The USCG also objects to the construction of any floodwall in the GIWW channel because of the increased hazards of vessels hitting the floodwall and causing a major marine incident.

The risks of damage to the HSDRRS would be so great as to be unacceptable with Alternatives 2 and 3 given the proximity of the floodwall to the Federal navigation channel, the high level of marine traffic utilizing the channel, and the types of

commodities being transported. Furthermore, the increased risk of a catastrophic environmental event given the hazardous nature of some of the commodities being transported daily on the GIWW is unacceptable. A marine mishap along this segment of the channel with a floodwall in the GIWW channel poses a significant risk to the people living in the area and of environmental damage to the Bayou aux Carpes 404(c) site than does the Alternative 1. Construction associated with either of these two alternatives would be extremely challenging and costly, would take longer and poses unacceptable risks to the Federal government.

Part II, Appendix A

U.S. Coast Guard Letter to EPA Regarding the GIWW Floodwall Alternative

U.S. Department of Homeland Security
United States Coast Guard

Commanding Officer
U.S. Coast Guard
Sector New Orleans

1615 Poydras St.
New Orleans, LA 70112
Staff Symbol: SPW
Phone: 504.565.5000

16630
23 February 2009

Environmental Protection Agency
Attn: Ms. Barbara Keeler (6WQ-EC)
Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Dear Ms. Barbara Keeler:

Please accept the following comments offered on behalf of the United States Coast Guard regarding the EPA's request to move certain floodwalls associated with the Westbank Closure Complex Flood Protection Project off of the Section 404C parcel and into the navigable waters of the Gulf Intracoastal Waterway near the confluence of the Harvey and Algiers Canals. We referenced the below website: www.nolaenvironmental.gov.

Sector New Orleans objects to any modifications of the U.S. Army Corps of Engineers (ACOE) project design that will further impede the navigable waters of the Gulf Intracoastal Waterway. If the ACOE has to reduce the width of the gates to accommodate the floodwall being moved into the channel, it will severely impact safe navigation through these flood gates in one of the most highly traveled waterways in Louisiana. We cannot have a floodwall in the waterway because of the increased hazards of vessels hitting the floodwall and causing a major marine incident. A shoreline is a necessity as a buffer between marine traffic and the floodwall.

The Gulf Intracoastal Waterway is paramount to the facilitation of commerce within the Gulf coast region and a floodwall in the waterway in this high traffic zone greatly increases the chances of potentially disastrous marine casualties.

If you have any questions please contact LCDR Eva Van Camp of my staff at (504) 565-5044.

Sincerely,

L. D. STROH
Captain, U. S. Coast Guard
Commander, Sector New Orleans

Copy: Gulf Intracoastal Canal Association

Part II, Appendix B

Annotated Responses to Comments

Received by EPA During the Public Comment Period on the Corps of Engineers' Request to Amend the 1985 Bayou aux Carpes 404(c) Determination

Prepared by EPA Region 6
March 2009

This document contains copies of the comments EPA Region 6 received during the public comment period (Jan. 14, 2009 – Feb. 23, 2009) on the Corps' request to amend the 1985 Bayou aux Carpes Clean Water Act (CWA) Section 404(c) determination. All of these comments were considered during the EPA evaluation of the Corps' request.

Each person or organization that provided input is listed below along with responses where appropriate. The first group of responses relates to correspondence sent to EPA Region 6. A complete copy of those original comments is included as Appendix C. The numbered responses correspond to numbers marked in the margins of the original comments, found in Appendix C.

The second group of responses relates to comments made during the public hearing. Those comments may be found in the public hearing transcript, in Appendix D.

One comment that was offered by a number of people relates to an alternative that would locate the Bayou aux Carpes floodwall off the boundary of the CWA Section 404(c) area and into the Gulf Intracoastal Waterway (GIWW). The response to that comment requires an evaluation of engineering design constraints, navigational safety, and Corps authorities. These topics are the expertise of the Corps. Therefore, EPA Region 6 requested an additional detailed response from the Corps on this topic, which is included as Appendix A.

The public hearing concerned two related topics, meeting the public interest needs of two federal agencies. The Corps was accepting comments on the NEPA document, IER # 12, for a segment of the 100-year hurricane and storm damage risk reduction project. This segment incorporates a project area greater than the Bayou aux Carpes CWA Section 404(c) site alone. EPA was accepting comments on the Corps' request to EPA to modify the Bayou aux Carpes CWA Section 404(c) determination. The purpose of this EPA Region 6 document is to respond to issues related to the CWA Section 404(c) issue. Where it is relevant, this document also includes some responses from the Corps

on the broader IER # 12. It is not, however, intended as a complete compendium of Corps responses on IER # 12.

Group One: Responses to Correspondence Sent to EPA During the Comment Period
(See Appendix C for copies of the correspondence and numbered comments)

Joseph I. Vincent

1. See the Corps response to building the floodwall in the GIWW, Appendix A.
2. Response from the Corps: Dredging of Algiers Canal has no bearing on Corps request to modify the 404c final determination. No contaminated material or water will be pumped or placed in the 404c area.
3. See the Corps response to building the floodwall in the GIWW, Appendix A.

US Fish and Wildlife Service

1. No response necessary.

Gulf Restoration Network

1. Response from the Corps: This comment has no bearing on the 404c modification request. The Corps comment period was 37 days and was extended by seven days to allow for comments at the public hearing to be counted towards the IER 12 draft. The Corps did not receive any notification requesting a comment extension during the original 30 day comment period (5 Jan to 4 Feb). The purpose of the public hearing was to gather additional comments from the public. The purpose of the meeting was not to provide new or previously undisclosed information to the public. All information discussed at the public hearing was disclosed in the draft IER 12 document that was published 5 January for public comment. Members of the NGO groups that requested extension of comment period turned in verbal and written comments during the comment period.
   Response from EPA: EPA extended the comment period on the CWA Section 404(c) issue until Feb. 23, 2009.
2. See the Corps response to building the floodwall in the GIWW, Appendix A.
3. Response from EPA: EPA will make a decision to modify the 404(c) determination, to modify it with conditions, or to deny the Corps' request based on the information provided in the Corps' formal request, in the IER and associated documents, in comments received during the public comment period, and in additional information requested from the Corps (e.g., the Corps' analysis of the possibility of locating the floodwall away from the boundary of the CWA Section 404(c) site and out into the GIWW, Appendix A) .
4. Response from the Corps: This comment has no bearing on the 404c modification decision. There are no new areas being placed on the protected side of the HSDRRS with the exception of the business along Harvey Canal. There are no foreseeable indirect impacts to wetlands that have not been previously disclosed in past environmental compliance documents.
5. Response from the Corps: This comment has no bearing on the 404c modification decision. The Corps plan as discussed in final IER 12 does not include any additional impacts to wetland flows or hydrology then exist for the no action plan.
6. Response from the Corps: This comment has no bearing on the 404c modification decision. No secondary indirect impacts have been identified that have not been previously disclosed in environmental compliance documents.

7. Response from the Corps: This comment has no bearing on the 404c modification decision. Table request was on page 134 of the draft IER 12 document.
8. Response from the Corps: The Corps in cooperation with EPA, NPS and other Federal and state Resource agencies developed a plan to conduct a study to determine if the augmentations proposed are reasonable and feasible. The plan developed was based upon best professional judgment that one year of data was enough to proceed with a determination of the benefits of the augmentations. Should it be agreed upon by the resource agencies and the Corps that additional study is required prior to a decision being made then the study period could be extended. Monitoring would be conducted once the augmentations are in place as per a plan developed with the resource agencies. As stated in the IER, if augmentations were found not to be effective they would be modified or removed.

Response from EPA: The interagency team of natural resource specialists are working on a study plan, to be funded by the Corps (with additional staff time from the participating agencies), prior to making any decisions on whether to gap the banks of the Estelle Outfall Canal. Because the only purpose of considering this action would be to enhance the marsh habitat, the team will proceed cautiously with the analyses, which will be conducted in a phased approach. The field study plan proposes to initially sample pore water at floating marsh sites, including a suite of parameters such as dissolved inorganic nitrogen and dissolved organic carbon. Surface water samples at the pumping station and in the canal will be collected following rain events and will be analyzed for a suite of parameters, including pesticides and herbicides. If initial results indicate a need to gather more data, the approach will be adapted accordingly. The results of the initial phase will be compared to similar productive marshes within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve, Barataria Preserve Unit, as a baseline for comparison. See Chapter 7 of Draft IER # 12.

If EPA concludes that proposed augmentation measures are beneficial and that implementation should proceed, no amendment of the current CWA Section 404(c) designation will be required. The original designation contains an exception for EPA-approved habitat enhancement projects.
9. Response from the Corps: Pages 162 and 163 discuss the monitoring plan that was developed in cooperation with EPA, USFWS, NPS, and other resource agencies. Additionally as a final mitigation plan is developed as per the alternative arrangements additional details on a final monitoring plan would be developed. As stated in the IER there are no long term operations and maintenance activities envisioned as being required for the augmentation work.
10. Response from the Corps: Page 163 of the IER states that if the augmentations were found to not be beneficial or there were adverse impacts appropriate steps as determined by the Corps in cooperation with EPA, NPS to address those impacts.

Response from EPA: While it is not envisioned that operation and management activities will be required for these non-structural features, a plan will be developed by the interagency natural resource team to monitor the effects of the augmentation features for the life of the Corps project. The plan will be adaptive in nature, meaning it will be subject to change by the interagency review team along the way, depending on the incremental findings. If implemented features are at any time determined to be ecologically harmful, the Corps has committed to implementing necessary modifications.
11. Response from the Corps: This comment does not have a bearing on the 404c modification decision. Overburden material is typically full of stumps, tree limbs, grasses, and possibly exotic species. It would not be appropriate to utilize this material

beneficially in a wetland system, i.e., introduce tallow or other noxious plants to a wetland area.
12. Response from the Corps: This comment does not have a bearing on the 404c modification decision. The benefits of non structural alternative were discussed in the IER. Non-Structural alternatives do not work well in high density urban situations such as the West Bank of New Orleans. In order to ensure the effectiveness of a non structural alternative in an urban situation virtually all of the residential and business structures along with the infrastructure that supports those business and residences would need to be flood proofed. It is not feasible nor a benefit to the nation to construct a 100 year HSDRRS and to raise a portion of the infrastructure, business, residential structures.
13. Response from the Corps: This comment does not have a bearing on the 404c modification decision. Whether the average house is 1,800 or 1,400, or 2,500 sq. feet is immaterial to the cost of the non-structural alternative. Cost to construct a structural barrier is projected to be 1.2B and the cost of the non-structural is 10 B. Even if you half the number to 5B it is still not a benefit to the nation to pursue a non-structural alternative for this project.
14. Response from the Corps: This comment does not have a bearing on the 404c modification decision. Legend was updated in final document.

Sierra Club

1. See the Corps response to building the floodwall in the GIWW, Appendix A.
2. Response from the Corps: The Corps in cooperation with EPA, NPS and other Federal and state resource agencies developed a plan to conduct a study to determine if the augmentations proposed are reasonable and feasible. The plan developed was based upon best professional judgment that one year of data was enough to proceed with a determination of the benefits of the augmentations. Should it be agreed upon by the resource agencies and the Corps that additional study is required prior to a decision being made then the study period could be extended. Monitoring would be conducted once the augmentations are in place as per a plan developed with the resource agencies. As stated in the IER, if augmentations were found not to be effective they would be modified or removed.

Response from EPA: The interagency team of natural resource specialists are working on a study plan, to be funded by the Corps (with additional staff time from the participating agencies), prior to making any decisions on whether to gap the banks of the Estelle Outfall Canal. Because the only purpose of considering this action would be to enhance the marsh habitat, the team will proceed cautiously with the analyses, which will be conducted in a phased approach. The field study plan proposes initially sampling pore water at floating marsh sites, to include a suite of parameters such as dissolved inorganic nitrogen and dissolved organic carbon. Surface water samples at the pumping station and in the canal will be collected following rain events and will be analyzed for a suite of parameters, including pesticides and herbicides. If initial results indicate a need to gather more data, the approach will be adapted accordingly. The results of the initial phase will be compared to similar productive marshes within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve, Barataria Preserve Unit, as a baseline for comparison. See Chapter 7 of Draft IER # 12.
3. Response from the Corps: This comment has no bearing on the 404c modification decision. The Corps is completing NEPA compliance under an alternative arrangement that was implemented in March 2007. The IER provides adequate documentation for an informed decision to be made concerning the government action as described. If changes to the project do occur that pose impacts to the environment that have not been

disclosed an IER supplemental document will be prepared and released to the public for a 30 day public comment period.
4. Response from the Corps: This comment has no bearing on the 404c modification decision. The Corps is completing NEPA compliance under an alternative arrangement that was implemented in March 2007. The IER provides adequate documentation for an informed decision to be made.
5. See the Corps response to building the floodwall in the GIWW, Appendix A.
6. Response from the Corps: Based upon the comments received during the draft IER comment period, which included a public hearing, the New Orleans District Commander made a decision that the comment period would not be extended.

Response from EPA: EPA extended by another ten days the comment period on the CWA Section 404(c) modification request.

Louisiana Audubon Council

1. See the Corps response to building the floodwall in the GIWW, Appendix A.
2. Response from the Corps: This comment has no bearing on the 404c modification decision. Not-to-scale drawings are used so that the public can understand the proposed action demonstrated in the figure. If the figure was drawn to scale as suggested the floodwall, berm, etc would be so small no one could determine any of the details.
3. Response from the Corps: This comment is not related to the 404c modification request. The Corps has stated that the dredged material would only be utilized for beneficial use if is not contaminated. The Corps has no reason to believe the material is contaminate, but is performing diligence to ensure that the material is free and clear of any contaminants hat would pose a hazard to the environment.
4. Response from the Corps: For national security reasons the Corps has been asked not to release information on known pipeline locations. As stated in the IER a new pipeline will be directionally drilled under the 404c area avoiding all impacts to the area. The old pipe will likely be capped in place by the owner of the pipe. Segments of the pipeline will be removed as necessary to provide adequate clearances for navigation traffic in the new bypass channel.
5. Response from the Corps: The Corps, in cooperation with EPA, NPS and other Federal and state Resource agencies, developed a plan to conduct a study to determine if the augmentations proposed are reasonable and feasible. The plan developed was based upon best professional judgment that one year of data was enough to proceed with a determination of the benefits of the augmentations. Should it be agreed upon by the resource agencies and the Corps that additional study is required prior to a decision being made then the study period could be extended. Monitoring would be conducted once the augmentations are in place as per a plan developed with the resource agencies. As stated in the IER, if augmentations were found not to be effective they would be modified or removed.

Response from EPA: The Corps has committed to EPA (via the Nov. 4, 2008, letter from Col. Alvin B. Lee to EPA's Lawrence E. Starfield, available on http://www.nolaenvironmental.gov) to fully mitigate the adverse impacts of the project that occur within the 404(c) area, as well as implementing additional habitat "augmentation" features. An agreement was reached that all mitigation would be performed within the 404(c) site, if possible. If that is not possible, mitigation would be performed within the adjacent Jean Lafitte National Historical Park and Preserve. The Corps has assured EPA that the funding for the mitigation and augmentation work is in hand and will be reserved for this purpose. The interagency team of natural resource specialists are working on a field study plan, to be funded by the Corps (with additional

staff time from the participating agencies), prior to making any decisions on whether to implement any particular environmental enhancement feature. From an engineering standpoint, construction of the mitigation and augmentation features is independent of construction of the flood risk reduction features.

6. Response from the Corps: This comment has no bearing on the 404c modification decision. The Corps is completing NEPA compliance under an alternative arrangement that was implemented in March 2007. The IER provides adequate documentation for an informed decision to be made concerning the government action as described. If changes to the project do occur that pose impacts to the environment that have not been disclosed an IER supplemental document will be prepared and released to the public for a 30 day public comment period.

7. See the response to comment 5.

8. Response from the Corps: This comment has no bearing on the 404c modification decision. The comment is also outside of the purview of the Corps to study since water flows between the Jean Lafitte National Historical Park and Preserve and the Bayou aux Carpes area are beyond the scope of this project.

Response from EPA: The study team, which includes staff from the National Park Service, has not determined that investigation of hydrologic flows between the 404(c) area and the Park is a priority for consideration as a mitigation or augmentation feature, although other hydrologic features were considered to be priorities for analysis. These include potentially gapping the Estelle Outfall Canal and other interior canals. However, this issue will be brought up again for discussion by the interagency review team.

9. See the response to comment 5.

10. Response from EPA: EPA, the Corps, and the interagency study team agree and are in the process of devising a study plan and analyzing hydrology data the Corps is assembling. See Draft IER # 12, Chapter 7.

11. Response from EPA: The interagency team of natural resource specialists are working on a study plan, to be funded by the Corps (with additional staff time from the participating agencies), prior to making any decisions on whether to gap the banks of the Estelle Outfall Canal. Because the only purpose of considering this action would be to enhance the marsh habitat, the team will proceed cautiously with the analyses, which will be conducted in a phased approach. The field study plan proposes initially sampling pore water at floating marsh sites, to include a suite of parameters such as dissolved inorganic nitrogen and dissolved organic carbon. Surface water samples at the pumping station and in the canal will be collected following rain events and will be analyzed for a suite of analytes, including pesticides and herbicides. If initial results of testing over four seasons indicate a need to gather more data, the approach will be adapted accordingly. The results of the initial phase will be compared to similar productive marshes within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve, Barataria Preserve Unit, as a baseline for comparison.

12. Response from EPA: A plan will be developed by the interagency natural resource team to monitor the effects of the augmentation features for the life of the Corps project. The plan will be adaptive in nature, meaning it will be subject to change by the interagency review team along the way, depending on the incremental findings. If implemented features are determined at some point to be ecologically harmful, the Corps has committed to implementing necessary modifications.

13. Response from EPA: EPA will support the Corps' efforts to make the study proposals available for public review.

14. Response from the Corps: NEPA allows for data gaps as part of the process for agencies making informed decisions. In this case the data gaps do not have an impact on the decision being made. Corps projects in general by law and regulation are rarely

taken past a feasibility level of design prior to the NEPA compliance document being prepared and approved.

Oliver A. Houck, Tulane Law School

1. See the Corps response to building the floodwall in the GIWW, Appendix A, and the alternatives analyses in IER 12, Chapter 2.
2. Response from EPA: EPA Region 6 shares this concern and will consider these issues in our recommendations to the EPA Office of Water.

League of Women Voters

1. See the Corps response to building the floodwall in the GIWW, Appendix A, and the alternatives analyses in IER 12, Chapter 2.
2. Response from EPA: EPA Region 6 shares this concern and will consider these issues in our recommendations to the EPA Office of Water.
3. Response from the Corps: This comment is not related to the 404c modification request. Furthermore no contaminated material will be utilized for beneficial use.
4. Response from the Corps: IER 12 meets the NEPA standard per the alternative arrangements.

Lower Mississippi Riverkeeper

1. See the Corps response to building the floodwall in the GIWW, Appendix A.

Jean Lafitte National Historical Park and Preserve -- No response necessary.

Southeast Louisiana Flood Protection Authority

1. Response from EPA: EPA Region 6 has worked with the Corps in an effort to develop alternatives which would minimize environmental impacts to the Bayou aux Carpes 404(c) area. EPA will evaluate the Corps' engineering analysis of such an option. See the Corps response to building the floodwall in the GIWW, Appendix A.

Gulf Intracoastal Canal Association

1. Response from EPA: EPA Region 6 has worked with the Corps in their effort to develop alternatives which would minimize environmental impacts to the Bayou aux Carpes 404(c) area. EPA will evaluate the Corps' engineering analysis of such an option, found in Appendix A. EPA Region 6 also recognizes the expertise of the Gulf Intracoastal Canal Association in this matter.
2. Response from the Corps: The Corps concurs with this statement and believes that the action proposed for the WCC is appropriate given the risk, safety, environmental, and cost that comes with a project such as this. See also Corps response to GIWW alternative, Appendix A.
3. Response from the Corps: The Corps has been coordinating this project and the proposed action with the CG for sometime. We welcome their input in to this process and are happy to have them as a partner in the process. See also the comment letter from the Coast Guard.

Hydradyne Hydraulics LLC -- No EPA response necessary.

Jefferson Parish -- No EPA response necessary.

Plaquemines Parish -- No EPA response necessary.

Mississippi River Recycling -- No EPA response necessary.

Numa C. Hero & Son

1. Response from EPA: It is correct that the habitat along the boundary of the Bayou aux Carpes CWA Section 404(c) area is not flotant marsh but is comprised of bottomland hardwoods grading into cypress-tupelo swamp. The flotant marsh is found in large expanses within the interior of the site. See IER # 12 Appendix I, Fish and Wildlife Coordination Act Report.

IWS Gas and Supply -- No EPA response necessary.

Connie & Kenny Nanney -- No EPA response necessary.

Harvey Canal Industrial Association -- No EPA response necessary.

Thomas G. Halko -- No EPA response necessary.

Louisiana Wildlife Federation

1. See the Corps response to building the floodwall in the GIWW, Appendix A.

U.S. Coast Guard -- No EPA response necessary. EPA Region 6 also recognizes the expertise of the U.S. Coast Guard in this matter.

American Rivers and National Wildlife Federation

1. See the Corps response to building the floodwall in the GIWW, Appendix A.
2. Response from EPA: Based on the plans provided to EPA Region 6 and the habitat assessment field work conducted by an interagency team, the figure of 9.6 acres of direct and permanent impact represents the maximum figure projected.
3. Response from EPA: Though EPA Region 6 and the interagency review team have not identified secondary and cumulative impacts beyond those discussed in the IER, a long-term monitoring plan is being developed to track any changes over the 50 year life of the project. If any adverse impacts become evident, the Corps has agreed to work with EPA Region 6 and the interagency team to address them.
4. Response from EPA: Neither the Corps nor EPA Region 6 have identified any direct or indirect impacts from the directional drilling proposal. That method of pipeline relocation has been proposed to avoid impacts to the Bayou aux Carpes CWA Section 404(c) area.
5. Response from EPA: Any impacts from the foreshore protection would be accounted for in the direct impacts to the 9.6 acres discussed in the IER.
6. Response from EPA: The Corps is completing NEPA compliance under a CEQ approved alternative arrangement that was implemented in March 2007. This allowed for a “rolling cumulative impact” analysis to be prepared and documented in a Comprehensive Environmental Document.
7. Response from USFWS: The Fish and Wildlife Coordination Act (FWCA) Report for IER 12 incorporated and supplemented several previous reports and assessments, including FWCA Reports that addressed impacts and mitigation features for the West Bank and Vicinity Hurricane Protection project (dated November 10, 1986, August 22, 1994, November 15,1996, and June 20, 2005); the November 26, 2007, Draft Programmatic FWCA Report that addresses the hurricane protection improvements authorized in Supplemental 4; and the 1985 report titled "Fish and Wildlife Resources of the Bayou aux Carpes Drainage Area, Jefferson Parish, Louisiana" provided to EPA in

response to EPA's request during the CWA 404 (c) designation. Because of the high volume of material those documents produced they were included by reference in the FWCA Report.

The Fish and Wildlife Service analyses of future with- and without-project conditions were quantified by acreage and habitat quality (i.e., average annual habitat units or AAHUs) in accordance with the Service's Habitat Evaluation Procedures. Because this work was initiated while the project was still early in the design phase, the footprint of greatest impacts was evaluated. The Service used the Louisiana Department of Natural Resources Habitat Assessment Methodology (HAM) to quantify the impacts of proposed project features on upland and wetland bottomland hardwood habitat and used the Wetland Value Assessment (WVA) methodology to quantify the impacts on swamp habitat. The habitat assessment models for bottomland hardwoods within the Louisiana Coastal Zone utilized in this evaluation were modified from those developed in the Service's Habitat Evaluation Procedures (HEP). Further explanation of how impacts/benefits are assessed with the HAM and WVA and an explanation of the assumptions affecting habitat suitability (i.e., quality) index (HSI) values for each target year for impacts to bottomland hardwood and swamp habitat are available for review at the Service's Lafayette, Louisiana, field office, as indicated in the FWCA Report.

8. Response from the Corps: The Corps in cooperation with EPA Region 6, NPS and other Federal and state Resource agencies developed a plan to conduct a study to determine if the augmentations proposed are reasonable and feasible. The plan developed was based upon best professional judgment that one year of data was enough to proceed with a determination of the benefits of the augmentations. Should it be agreed upon by the resource agencies and the Corps that additional study is required prior to a decision being made then the study period could be extended. Monitoring would be conducted once the augmentations are in place as per a plan developed with the resource agencies. As stated in the IER, if augmentations were found not to be effective they would be modified or removed.

Response from EPA: The interagency team of natural resource specialists are working on a study plan, to be funded by the Corps (with additional staff time from the participating agencies), prior to making any decisions on whether to gap the banks of the Estelle Outfall Canal. Because the only purpose of considering this action would be to enhance the marsh habitat, the team will proceed cautiously with the analyses, which will be conducted in a phased approach. The field study plan proposes initially sampling pore water at floating marsh sites, to include a suite of parameters such as dissolved inorganic nitrogen and dissolved organic carbon. Surface water samples at the pumping station and in the canal will be collected following rain events and will be analyzed for a suite of parameters, including pesticides and herbicides. If initial results indicate a need to gather more data, the approach will be adapted accordingly. The results of the initial phase will be compared to similar productive marshes within the adjacent Barataria Unit of the Jean Lafitte National Historical Park & Preserve, Barataria Preserve Unit, as a baseline for comparison. See Chapter 7 of Draft IER # 12.

Office of Coastal Protection and Restoration -- No EPA response necessary.

Paul Atkinson -- No EPA response necessary.

Group Two: Responses to Oral Statements Made at the Public Hearing
(See Appendix D for a transcript of the statements)

Mayor Kerner:
EPA Response: The concern was expressed that the West Closure Complex project segment would lie on the protected side of at least one alignment of the proposed "Donaldsonville-to-the-Gulf" hurricane risk reduction project and would, therefore, not be the most efficient project design or the most efficient use of funds. Several people claimed that a levee system located farther south would provide hurricane protection to Bayou Barataria communities such as Crown Point and Jean Lafitte, areas that would not be protected by the West Closure Complex. The argument was made that the Corps should proceed directly to build the "Donaldsonville-to-the-Gulf" hurricane risk reduction project as an alternative to the West Closure Complex or as an alternative to the entire upgraded West Bank and Vicinity project, as a part of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System project (GNOHSDRRS). Whereas the GNOHSDRRS project is authorized, funded, and proceeding under expedited NEPA review, the "Donaldsonville-to-the-Gulf" project is still undergoing engineering design and environmental review. Once this work has been completed, Congressional authorization and appropriation would then be required before construction could begin on the "Donaldsonville-to-the-Gulf" project. EPA Region 6 expresses no opinion here on the feasibility of constructing a Category 5 hurricane protection system.

Mr. Vallee: No EPA response necessary.

Mr. Rota: The EPA comment period was extended by ten days. See responses above to the detailed letter from Gulf Restoration Network in the annotated comments.

Mr. Modino: See the Corps response to building the floodwall in the GIWW, Appendix A.

Ms. Mastrototaro: The EPA comment period was extended by ten days. See also the Corps response to building the floodwall in the GIWW, Appendix A.
Mr. Stern: See the responses above to the detailed letter from Sierra Club and the Gulf Restoration Network, as well as the response to Mayor Kerner.

Mr. Champagne: See the response to Mayor Kerner.

Dr. Kohl: The EPA comment period was extended by ten days. Seethe responses above to the detailed letter from the Louisiana Audubon Council.

Ms. Kahn: No EPA response necessary.

Mr. Hero: No EPA response necessary.

Mr. Huffman: No EPA response necessary.

Mr. Halko: See the response above to Mayor Kerner.

Mr. Pourciau: No EPA response necessary.

Part II, Appendix C

Public Comments

Feb. 9, 2009
509 Third Ave.
Harvey, La. 70058

Gib Owen, PM-RS
U. S. Army Corps of Engineers
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Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733
keeler.barbara@epa.gov

Dear Sir and Madam:

I am writing today in regard to the GIWW West Closure Complex, the Corps' Individual Environmental Report 12, and the Corps' request to impact the Bayou aux Carpes 404© area here in Jefferson Parish, Louisiana. Common sense dictates that the 404© area continue to receive full protection, and that the Corps request be denied.

For my entire adult life, the Corps of Engineers has served as a combination lap dog/lap dancer/towel girl for the Louisiana Congressional delegation, which has always ranked at or near the top in terms of corruption and its penchant for acting in direct contrast to the welfare of its constituents. Admittedly, Alaska probably kept Louisiana out of the top spot the last few years, but not for lack of trying. Some of what can only be considered to rank amongst the nation's greatest eco-terrorists have been members of the Louisiana delegation: Billy Tauzin, J. Bennett Johnston, John Breaux, and Bob Livingston, to name a few. And today's delegation has been guilty of tremendous neglect. Over 20 years after the creation (against terrific political opposition) of the only National Park in the State, the park's boundaries have yet to be normalized.

For close to 40 years, I have been active in attempts to stop the Corps from either destroying or allowing the destruction of Louisiana's wetlands. But the Corps has routinely either encouraged or allowed the continued destruction of our wetlands. Thousands upon thousands of needless projects were approved by or thought up by the Corps with the primary intent of destroying wetlands that could protect and nurture us all for the sake of some individual's or corporation's short-term gain. Wherever and whenever possible, the Corps ignored the law and

shirked its duties, dreaming up garbage like Nationwide Permits and delegating its authority to local programs like that of Jefferson Parish, which has always tried to destroy as many acres of wetlands as is humanly possible.

Jefferson Parish politicians wanted desperately to destroy the Bayou aux Carpes area. The Corps desperately wanted to help them do so. Only the miraculous intervention of EPA stopped that destruction from occurring. The same people who threw their weight around in those days are still around today. There may be new people in the Corps with whom I am not acquainted, who may actually want to obey the law and do what's morally right. I hope so, although I would note that the Corps has yet to correct the situation in Crown Point, where Jefferson Parish has been illegally draining wetlands for over 30 years.

If our observations are correct, the talweg of the GIWW is now a few hundred feet from shore. The project was approved as a 125' by 12' channel, so there appears to be a tremendous amount of room for constructing a "T-wall" between the boundary of the Bayou aux Carpes 404© area and the boundary of the 125' authorized channel. We find no reason to encroach upon the 404© area to accomplish the Corps' stated purpose. (1)

I myself live on the West Bank of Jefferson Parish. I need hurricane protection as much as anyone else. But there never was, and there is no reason to destroy wetlands to accomplish the completion of a hurricane protection levee system. Certainly, an area like the 404© area at Bayou aux Carpes is ever more rare, and as such ever more valuable as both habitat and a natural storm buffer. We cannot allow any of it to be lost. We cannot allow contaminated sediment to be placed in it. We cannot allow contaminated water to be pumped into it. We cannot bear to hear the word "mitigation", which has historically been as pathetic a failure as the Jefferson Parish motto "Jefferson's got to grow." (2)

I hereby ask the Corps to modify its design to move the "T-wall" further in the direction of the GIWW talweg to spare any and all parts of the 404© area, and I hereby ask EPA to not allow the destruction of any part of the Bayou aux Carpes 404© area. (3)

Thank you.

Yours truly,
Joseph I. "Jay" Vincent

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

February 9, 2009

Ms. Barbara Keeler (6WQ-EC)
Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Ms. Keeler:

Please reference the Environmental Protection Agency's (EPA) Notice of Public Hearing and Request for Comments published in the Federal Register (Volume 74, No. 9, pg. 2072) on January 14, 2009. The U.S. Army Corps of Engineers (Corps), New Orleans District, has requested an amendment to EPA's Clean Water Act (CWA) Section 404 (c) designation which prohibits discharges of dredged or fill material into the Bayou aux Carpes Site in Jefferson Parish, Louisiana. That amendment is requested to allow the Corps to construct the proposed Westbank and Vicinity of New Orleans (WBV), Harvey to Algiers, 100-year level hurricane protection project, Individual Environmental Report 12 (IER 12), which is authorized in accordance with Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). The EPA has requested comments as to whether the 1985 Bayou aux Carpes CWA Section 404 (c) EPA Final Determination should be modified as requested by the Corps. The Service submits the following comments in accordance with the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321 et seq.), Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Service recognizes the importance of the Bayou aux Carpes wetland complex to fish and wildlife resources and believes that the designation is warranted to protect these sensitive areas from development. In cooperation with Federal and State partners, the Corps has minimized potential direct and indirect impacts to significant flotant marsh and cypress swamp habitat by aligning the floodwall along the periphery of the Bayou aux Carpes CWA Section 404 (c) site. While the preferred alignment has resulted in greater direct impacts to forested wetlands, those forested wetlands at one time were previously altered by fill material. The preferred alignment would enclose fewer wetland acres, and avoid the damaging hydrologic consequences associated with bisecting the Bayou aux Carpes flotant marsh with a structural barrier. Moreover, unlike the Harvey Canal-Bayou Barataria Levee project which was the catalyst for EPA's determination, the preferred alternative alignment would avoid inclusion of the Bayou aux Carpes flotant and cypress swamp complex into the flood protection system and subsequently placing the area under

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pumped drainage.

During the alternatives analysis for IER 12, the Corps considered a series of alternative gate locations within the project area that would minimize the need for parallel protection. One of these alternatives included constructing a sector gate across the Bayou aux Carpes CWA Section 404 (c) site and was initially the Corps' preferred alternative. The proposed floodwall alignment within the Bayou aux Carpes CWA Section 404 (c) site would have, not only directly impacted high-quality flotant marsh and forested wetlands, but would have isolated approximately 500 acres of flotant marsh by placing them within the flood protection system. Constructing a floodwall across flotant marsh would disrupt the dynamic hydrologic conditions characteristic of a flotant marsh and would disrupt the natural hydrologic regimes within the entire Bayou aux Carpes wetland complex negatively impacting significant fish and wildlife resources. As proposed, the preferred alternative would minimize impacts by avoiding bisecting the Bayou aux Carpes CWA Section 404 (c) site and by implementing innovative design and construction techniques (e.g., floodwall design, construction sequencing).

At this time, the Service is unaware of any threatened or endangered species or their critical habitat within the proposed hurricane protection system project footprint for IER 12. However, the project-area forested wetlands provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), and a bald eagle nest was documented within the Bayou aux Carpes drainage area in 2007. This should be considered when designing environmental augmentation features. The bald eagle was officially removed from the List of Endangered and Threatened Species on August 8, 2007. Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water in the southeastern Parishes. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead). Although the bald eagle has been removed from the List of Endangered and Threatened Species, it continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. The Service's Division of Migratory Birds for the Southeast Region (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. Should you need further assistance interpreting the guidelines or performing an on-line project evaluation, please contact this office.

Direct impacts to bottomland hardwood and swamp habitat associated with the preferred alternative were quantified by acreage and habitat quality (i.e., average annual habitat units or AAHUs). The Service used the Louisiana Department of Natural Resources Habitat Assessment Methodology (HAM) to quantify the impacts of proposed project features on upland and wetland bottomland hardwood habitat and used the Wetland Value Assessment (WVA) methodology to quantify the impacts on swamp habitat. The Service determined that direct impacts to approximately 9.6 acres of forested habitat (i.e., 2.4 acres of bottomland hardwood habitat and 7.2 acres of swamp habitat) within the proposed 100-foot right-of-way of the Bayou aux Carpes CWA Section 404 (c) site would result in the loss of 6.1 AAHUs. Riparian habitat and

associated fish and wildlife resources would be minimally reduced within the Bayou aux Carpes CWA Section 404 (c) site. Mitigation for unavoidable losses of wet and non-wet bottomland hardwoods and swamp habitat, caused by project features of the entire hurricane protection system will be evaluated through a complementary comprehensive mitigation IER. However, should this designation be amended and the Corps' proposed alternative authorized, mitigation for unavoidable impacts to the Bayou aux Carpes 404 (c) area would be provided concurrently with flood protection features and within the Bayou aux Carpes 404 (c) area.

To ensure that potential impacts resulting from the construction of a flood protection structure do not compromise the value of this nationally-significant wetland ecosystem and to maintain the integrity of the Bayou aux Carpes CWA Section 404 (c) site, the Corps is proposing to incorporate environmental augmentation features into the proposed hurricane protection project. Stormwater from the Old Estelle Pump Station canal is currently being directed into the GIWW bypassing the Bayou aux Carpes wetland complex. Because of the invaluable water quality functions wetlands provide, stormwater will be redirected through the Bayou aux Carpes CWA Section 404 (c) site which would restore the natural process of nutrient cycling and reduce the risk of eutrophication in the lower basin waterbodies, provided modeling results support that action. Proposed augmentations could supplement hydrologic exchange within approximately 3,000 acres of flotant marsh, cypress swamp, and wetland scrub-shrub habitat.

Although complete avoidance of the Bayou aux Carpes CWA Section 404 (c) site would be preferred, it is the Service's opinion that amending the designation as proposed would not have an unacceptable adverse effect on fish and wildlife resources within the Bayou aux Carpes wetland complex. The Corps has incorporated proposed environmental augmentation features as a feature of the proposed project. Provided that hydrologic modeling supports implementation of those features, the Service believes that those augmentations coupled with long-term monitoring will ensure that unforeseen impacts to the Bayou aux Carpes CWA Section 404 (c) site are avoided. On the condition that the Corps moves forward with modeling and design of the environmental augmentation features concurrently with hurricane protection features, the Service would not be opposed to EPA modifying the 1985 Bayou aux Carpes CWA Section 404 (c) EPA Final Determination.

We appreciate the opportunity to comment on the proposed amendment and look forward to the continued coordination with the EPA, the Corps, and other State and Federal resource agencies with regards to the proposed hurricane protection system project. Should you have any questions regarding our comments, please give me a call (337/291-3115).

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: FWS, Atlanta, GA (ES/HC)
Corps, New Orleans, LA
Jean Lafitte National Historical Park and Preserve, New Orleans, LA
NMFS, Baton Rouge, LA
LDWF, Baton Rouge, LA
LDNR, CMD, Baton Rouge, LA

GULF RESTORATION NETWORK

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February 11, 2009

Mr. Gib Owen, PM-RS
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Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
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RE: DRAFT INDIVIDUAL ENVIRONMENTAL REPORT 12 AND PROPOSED MODIFICATION TO 404(C) ACTION

Dear Mr. Owen and Ms. Keeler:

I am writing on behalf of the Gulf Restoration Network (GRN), a diverse coalition of individual citizens and local, regional, and national organizations committed to uniting and empowering people to protect and restore the resources of the Gulf of Mexico. Please accept the following comments regarding the Army Corps of Engineers' *Draft Individual Environmental Report: GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana (IER #12),* and the *Proposed Modification to the Bayou aux Carpes 404(c) Action.*

While we recognize that the protection of our coastal resources is urgent, we have some comments and concerns about several aspects of IER #12 as it is currently written. These concerns are outlined below:

1. ***Public Participation is Not Adequate***

   While the public comment period was extended to at least coincide with the public hearing, this is still not adequate. If the public hearing lasts until 9:00 pm, this only allows the public three hours to process and comment upon any information presented by the Corps or other commenters. *Because of this, we request the public comment period be extended to allow for the public to comment upon new information gained at the hearing.* (1)

2. ***Full Avoidance of Bayou aux Carpes 404(c) Must Be Further Analyzed***

We would first like to applaud the Corps for working with us and EPA to develop the proposed alignment, instead of selecting an alignment that would have bisected the Bayou aux Carpes area. It is important that the Corps continue to recognize the importance of this ecologically sensitive area.

However, we feel that the 9.6 acres in the Bayou aux Carpes could be further avoided. On page 49, it is stated that "alternatives that would avoid impacts to that area were considered...this alternative was eliminated from further consideration due to constructability and navigation concerns" because it would "create engineering and construction challenges..." This statement is not supported. The navigation channel is authorized to be 125 feet wide, while the waterway is 400-500 feet wide. The Corps does not demonstrate in this IER why it is not feasible to place the T-wall further out into the waterway. Assuming the channel is in the approximate center of the canal, this would still allow a large buffer between navigation and hurricane protection. Because of this lack of justification and failure to demonstrate the necessity of impacting the 9.6 acres of the Bayou aux Carpes, we request that the moving of the t-wall further out be analyzed in order to further reduce, or even eliminate the wetland impacts. We request that an analysis be done examining moving the flood wall different distances out into the water. Since this would constitute a significant change, the IER should also be re-noticed. Additionally, EPA should not grant a 404(c) modification until it is shown that the Corps thoroughly explored all options for the reduction or elimination of impacts to the 404(c) area.

3. ***Wetland Impacts Must be Considered Fully***

While Table 6 on page 63 presents the total direct wetland impacts anticipated, secondary and indirect impacts are not addressed. With increased storm protection comes increased development pressure. In fact the Bayou aux Carpes area was originally going to be drained and developed several years ago. On page 47, the Corps even admits that rezoning "could minimize future damages from new development in flood–prone areas," thus implying that the surrounding areas very well could be developed given current zoning. This secondary effect must be taken into account. Further, taller and more expansive levees and flood walls have the potential to disrupt the flow of water through wetlands, potentially impacting these wetlands.

In order for this IER to fully address its environmental impacts, secondary and indirect impacts must be accounted for within the report, and slated to be mitigated for, just as direct impacts are.

Additionally, cumulative impacts are not thoroughly addressed. Acknowledging that cumulative impacts will be discussed fully in the CED, more on cumulative impacts should be included in this IER. In past meetings with the Corps, they have presented a spreadsheet that had current impacts and anticipated impacts. This analysis, or best estimate of cumulative impacts should be included in this and all subsequent IERs 7

4. ***Augmentation Features Must Be Thoroughly Researched and Planned***

In order for EPA to make a truly informed decision the "augmentation features" must be further designed and studies. The impact to the 404(c) area is partially justified because some augmentation features are being examined, the largest of which would be the gapping of the canal to the north of the area to allow storm runoff to flow through the wetland. A baseline study of at least two years should be done to see if this would indeed augment the area. Given that this water would be urban runoff, which could potentially be carrying high levels of nitrogen and phosphorus, metals, and petroleum products, care must be taken to ensure that this "fresh" water is truly fresh and not too contaminated to cause damage to the wetland over the short and long term. 8

The operating plan and funds for the augmentation features are also not discussed in this IER. On page 39, it is stated that "modifications to the banks and shell plug in the Bayou aux Carpes CWA Section 404(c) area would not be expected to require [operation and maintenance]." However the monitoring and control of flood structures in the canal would require monitoring, operation, and maintenance for at least several years after they are put into operation. The operation and management of the augmentation features must be addressed and guaranteed for years to come. 9

We also request if this action proceeds, a contingency plan is written into the project. Specifically if some or all of the augmentation features are not beneficial to the area, more mitigation should be required within or adjacent to the 404(c) area, since part of EPA's decision depends on the success of these augmentation features. 10

5. ***Beneficial Use*** 11

It is stated that dredge material will be used beneficially in the "crib" area to build wetlands. This must be detailed more in the IER. Specifically, contaminants and wetland building plans must be further addressed. The dredge materials must be tested for contaminants to ensure that humans *and* wildlife will not be acutely or chronically harmed by any contaminants from industrialized navigation channels. Additionally if contaminated sediment is identified, and it is landfilled, this sediment would probably first be de-watered, which could cause large water quality issues.

Since this would be an obvious environmental impact, the effects of this dewatering of contaminated sediment must be addressed fully in the IER.

Further, a specific plan for wetland creation utilizing dredge material should be detailed in this report. It is not acceptable to defer this to the mitigation IER, as dredge disposal is an integral part of this project. This plan is vital in order to ensure that dredge material is not simply dumped in the crib area, but a plan is followed that will give wetlands the best opportunity for sustainable production.

Also regarding beneficial use, it is stated on page 29 that "overburden material...would be mulched and used on site or hauled away to a landfill." At a recent meeting we asked why this overburden cannot be used beneficially in wetland creation instead of being hauled to a landfill, and our question was not adequately answered, so we ask again if the Corps looked into this beneficial use of overburden. If so, this information should be in the IER, if not, we formally request that this be explored within this IER.

6. ***Non-Structural***

This IER, as well as other IERS that we have reviewed do not adequately address non-structural options to potential projects for the 100 year protection for metro New Orleans. On page 47, it stated that "no combination of non-structural tools could independently achieve the required 100-year level of risk reduction needed to provide hurricane surge protection on the [West Bank and Vicinity] as intended by federal statutes." However, the question is not "can non-structural tools *eliminate* the need for structural storm protection," but can it be used in *combination* with structural components to achieve protection that is sustainable and reduces the impact on the natural environment. We feel that the Corps is misinterpreting WRDA. While WRDA states that nonstructural measures can be considered independently or in combination with structural measures (p. 45 of IER #12), the combination of structural and nonstructural is completely ignored. 12

Additionally, when discussing the "raise in place" option, the IER assumes that all structures would have to be raised, and that each residential structure averages 1,800 square feet. Given that nonstructural and structural can be used together, the assumption that all buildings would have to be raised is a false assumption. Additionally, we request evidence to support the assertion that the average home in this area is 1,800 square feet. 13

7. ***Preliminary Alternatives Screening Table is Not Complete***

   Table 3 on page 50 has errors in the key, and thus is not correct. In the table there are checks, dots, and x's, however nowhere in the table is it stated what a check is. This is a very important table, as it is supposed to summarize how each alternative was screened. Without knowing what the symbols are, it is impossible to interpret this table. Given the importance of this table, we request a re-notice of this IER, so we and EPA can be positive that the best option was truly chosen.

14

Thank you for the opportunity to comment on IER #12 and the 404(c) modification. While we are pleased that the Corps has worked towards avoiding impacts to the 404(c) area, we feel that more could potentially be done to protect the area. Given this, we request that EPA not modify the 404(c) action until IER #12 is truly completed, including the additions that are suggested above.

We trust that the Corps and EPA will take all of the above comments seriously, as they would enhance the project. We look forward to a timely written response. Further, we would welcome the opportunity to meet with the agencies to discuss our concerns.

Sincerely,

Matt Rota
Water Resources Program Director

CC:

John Ettinger, US EPA
Horst Greczmiel, US CEQ
Jill Mastrototaro, Sierra Club
Melissa Samet, American Rivers
Barry Kohl, LA Audubon Council
Jill Witkowski, Tulane Environmental Law Clinic
Mike Murphy, Tulane Environmental Law Clinic
John Lopez, Lake Pontchartrain Basin Foundation
Carlton Dufrechou, Lake Pontchartrain Basin Foundation
Mark Davis, Tulane University
Maura Wood, National Wildlife Federation
Juanita Constable, National Wildlife Federation
Natalie Snider, Coalition to Restore Coastal Louisiana

Steven Peyronnin, Coalition to Restore Coastal Louisiana
Paul Kemp, National Audubon Society
Haywood Martin, Delta Chapter Sierra Club.

SIERRA CLUB
FOUNDED 1892

Haywood R. Martin, Chair
Sierra Club, Delta Chapter
400 Glynndale Ave.
Lafayette, LA 70506

February 11, 2009

Gib Owen, PM-RS
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Re: Combined public hearing on the Draft IER-12, on the modification of CWA Sec. 404(c) determination for Bayou aux Carpes; and hearing on GIWW West Closure Complex.

The Sierra Club Delta Chapter supports a safe hurricane protection levee for the entire New Orleans area including the west bank of Jefferson Parish. We also support the use of natural systems such as forested and non-forested wetlands to add progressive barriers to storm surges.

We thank EPA and the other resource agencies for recommending to the Corps a change in their original preferred alternative, which was the Southern Closure option. It appears that the proposed alternative would take 9.6 acres of the BAC as opposed the 600 acres of marsh that would have been impacted by the earlier proposal. While this is a large decrease in the taking of wetlands of national significance, we suggest that the Corps can do better. Additional structural changes to the eastern levee and closure complex would avoid any wetland loss to the BAC. The Corps Alternative 2, should be modified to avoid any direct or indirect impacts to the Sec 404(c) wetlands. It appears that there is adequate space to move the structure further into the waterway so as to avoid the 404(c) wetlands. 1

2 We are also concerned that any additional information gathered over the one-year baseline study will come after the project has been approved. This includes most of the impacts to the BAC area. 3 Also, the engineering design report for the gates and floodwalls has not been completed. The DIER states that a Draft Comprehensive Environmental Document (CED) "will contain updated information for any IER that had incomplete or unavailable data at the time it was posted for public review." It appears that potentially critical information will not be available at the time the IER is approved and construction commences. The list of inadequacies admitted by the Corps shows that this document should not have been released until the Corps had time to finish its work and a complete IER prepared for public and agency review.

We are informed that the Bayou aux Carpes 404(c) area will be included within the Jean Lafitte National Historical Park and Preserve this year. Senate bill S. 22 has passed the US Senate and it is expected to pass the House soon. This provides significant additional importance to the protection of the BAC as, a 404(c) area and as part of the Barataria Preserve of the National Park.

Because there are still important data omitted from the draft document, we request that a revised/amended IER be prepared and circulated to the public and resource agencies for review. We are formally requesting that IER-12 be amended to include omitted information, and full responses to the public/agency comments on the DIER-12 (4)

(5) In conclusion, we oppose Alternative 2, the preferred alignment, as presented in the DIER-12. We request the Corps do an amended IER containing new designs and supportive data, and we strongly recommend that EPA deny the request by the Corps to modify its final determination on the Bayou aux Carpes CWA 404(c). Furthermore we request that the comment period be extended so that all interested parties have adequate time to prepare substantive comments. (6)

Thank you,

Harry Salem for

Haywood Martin, Chair
Sierra Club Delta Chapter

cc: Louisiana Audubon Council

Louisiana Audubon Council

1522 Lowerline St., New Orleans, LA 70118

February 11, 2009

Gib Owen, PM-RS
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Re: Combined public hearing on the Draft IER-12, on the modification of CWA Sec. 404(c) determination for Bayou aux Carpes; and hearing on GIWW West Closure Complex.

Dear Ms. Keeler and Mr. Owen,

First, the Louisiana Audubon Council wants to be on record as supporting a safe hurricane protection levee for the entire New Orleans area including the Westbank of Jefferson Parish. The Jean Lafitte National Historical Park and Preserve (JLNHPP) and Bayou aux Carpes (BAC) wetlands will provide non-structural protection and reduce the hurricane tidal surges before they reach the westbank levee system. Non-structural protection is provided by forested and non-forested wetlands and have been documented as reducing the height of tidal surges during Hurricanes Rita, Gustav and Ike.

We thank EPA and the other resource agencies for recommending to the Corps a change in their original preferred alternative, which was the Southern Closure option, GIWW-A. This alignment would have segregated the BAC, Sec. 404(c) area and adversely impacted 600 acres of flotant marsh.

The Corps' new preferred alignment (Alternative 2, GIWW-WWC) would directly take 9.6 acres of the BAC. While this is a large decrease in the taking of wetlands of national significance, the Corps should not stop there. Additional structural changes to the eastern levee and closure complex would avoid any wetland loss to the BAC. The Corps Alternative 2, should be modified to avoid any direct or indirect impacts to the Sec 404(c) wetlands. (see below).

Alternative 2, GIWW-WWC: (a suggested modification) 1

It is our opinion that the encroachment into the BAC wetlands can be avoided entirely by moving the "innovative T-wall", berm and riprap further into the waterway by 100 ft., thereby avoiding the 404(c) wetlands. Bayou Barataria includes the GIWW barge channel which has a congressionally authorized width of 125 ft and a depth of 12 ft (USACE, 1998). The GIWW barge channel is a minor constituent of the waterway which is now 500-650 ft wide along the eastern side of the BAC project area. Moving the T-wall 100 ft into an area which, based on Corps maps was land prior to 1971, would be a slight alteration of the preferred alternative.

A waterway with a width of 400 ft was sufficient in 1971 and provided adequate space for a 125 ft barge channel (which then was 31 % of the waterway width). The present width of the waterway, due to erosion by barge traffic, is now 100- 200 feet wider than in 1971 (USACE, 1971). This increased width reduces the portion of the waterway needed for the barge channel to 21 % of the total width. There are additional opportunities to improve the structural design of the T-wall and gate complex to avoid the BAC all together. The Corps stated that it intends to reduce the structural impacts on the BAC.

Alternative G-GIWW C: Sec. 2.5.3.4 (p. 49)

This section is a misrepresentation of the facts. It states that this alternative, of moving the "innovative T-wall" to avoid impacts to the 404(c) wetlands, would be to "construct the eastern innovative floodwall completely within the GIWW . . ." and that "construction of a floodwall within the heavily used navigation channel . . . would create engineering and construction challenges . . . "

The Corps suggests that building the floodwall in the navigation channel is the only other option to its preferred alternative. The navigation channel is only 125 ft wide in a waterway which is 600 feet in width. It appears that this misrepresentation is deliberately being used to discredit the practicability of this alternative.

What should be considered is moving the T-wall into the shallow water area which would still leave 500 ft to accommodate a 125 ft wide navigation channel. Congress authorized a 125 ft channel for most of the GIWW. If a wider channel was needed, Congress would have authorized it. Barges moored along the Harvey and Algiers Canals significantly reduce the waterway width available for barge navigation. This is evidently not a hazard to navigation. The alternative G-GIWW C was never presented in stakeholder meetings attended by our organization. Why weren't alternative designs presented in the DIER-12? Based on the various engineering designs of the sector gates and pumping station configurations (posted on the Corps' website), surely one could be modified to avoid the 404(c) wetlands all together. This deficiency should be corrected in the amended IER.

• Appendix K (Figure entitled, "Current Proposed Site Plan"): The description states that the "orientation of the pump station, gates, bypass channel and levee on east side of GIWW are not final and could change as design progresses." This means that there is still some flexibility and the final engineered design could avoid the 404(c) wetlands.

• Diagram 1 on p. 27 should be drawn to scale. It should also include the present width of the waterway and the position (centerline) of the 125 ft navigation channel. A scale showing the water depth should also be added. These figures should not be conceptual in this document. (2)

Contaminated sediments: Appendices L, L(b) and M (3)

The chemical analyses of the Algiers Canal sediments are not included in the Appendix of DIER-12. Only two contaminants are discussed but there is not a complete listing of COCs in which the bottom sediments were tested. Additional testing has been recommended but there is very little discussed in the DIER. A new document, dated Jan. 5, 2009, was posted on the website but not included in the DIER.

Of major concern to our organization is that the Corps intends to use the dredged material from the bottom of the Algiers Canal and barge it to the JLNHPP. The plan is to use the spoil to plug an erosional area along Lake Salvador and the Park boundary by placing the dredged material into a Geocrib. We support the use of clean spoil for beneficial use but <u>oppose</u> the introduction of contaminated material into the Park's ecosystem.

We request that this section of the IER be rewritten to fully identify the procedures undertaken by the Corps to determine whether the sediments are safe for open water disposal. The detection limit chosen does not take into consideration the affects of contaminants on benthic organisms - only the affect on human health. That update should include the location of sediment cores, chemical analyses of the sediments and a presentation of all the results in an appendix as part of an amended IER.

It is important that the screening procedure identify the levels of concentration of toxic sediments that cause chronic affects to benthic organisms as outlined in the NOAA's ER-M, ER-L sediment criteria for COC. In Appendix M the executive summary was omitted from the report as well.

Appendix L(b) recommends, "more sediment sampling . . . to further delineate the contaminated area." This canal could be contaminated with PAHs and other hydrocarbon derived toxics. The executive summary dated 1/5/09 for Final Phase II ESAR (and posted on the website) must be included in the amended IER-12 as well as the sediment data. The detection limit for PAHs was set at 330 ppb which is too high to detect many PAHs that have a consensus based TEL below this detection limit (Macdonald et al., 2000). Many states are using the consensus based TEL as a screening level for cleanup of contaminated sediments to protect aquatic organisms.

The ESAR stated that the toxic review was based on human impacts not impacts to the biota and used the LDEQ RECAP screening standards which do not consider the broader environmental impacts. Since these sediments will be deposited in the National Park, they should be tested for impacts to the biota as the highest priority. Unless this is done we oppose any of the Algiers Canal sediments being used as fill in the Barataria Preserve.

Enterprise Pipeline Relocation: 4

We did not find one map that identified the location of the existing Enterprise pipeline nor a discussion of the impacts of relocation of the pipeline on the BAC wetlands. In Appendix K figure 1 is a dashed line labeled pipeline relocation. Does this pipeline belong to Shell? It is identified on earlier corps maps as a Shell pipeline (USACE, 1971). There should be a full discussion describing how the relocation will prevent any direct or indirect impacts to the BAC. Will the old pipeline be removed? How old is it? How much will be relocated? Between what reference points will the work be done? (point A to point B). Will the pipeline segment reconnect to the old pipeline. We request the amended IER include an expansion of the discussion section fully explaining the pipeline relocation procedure and impacts to the BAC.

Data Gaps and Uncertainties: (p. 16)

Of concern to us, is that any additional information gathered over the one-year baseline study will come after the project has been approved. This includes most of the impacts to the BAC area.

Also, the engineering design report for the gates and floodwalls has not been completed. On page 16 it states, "At the time of the submission of this report, engineering evaluations have not been completed for all of the proposed actions and alternatives." 5

In fact, this section lists the data not included in this DIER-12 as; 1) sources of levee material have not been identified, 2) environmental surveys are not complete, 3) cumulative impact data are not complete, 4) impacts on transportation remain unknown, 5) the engineering analysis is based on a concept level design and is not complete.

The DIER states that a Draft Comprehensive Environmental Document (CED), "will contain updated information for any IER that had incomplete or unavailable data at the time it was posted for public review." (DIER, p. 14). This means that potentially critical information will not be available at the time the IER is approved and construction commences. The long list of inadequacies admitted by the Corps shows that this document should have been witheld until the Corps had time to finish its work and prepare a complete IER prepared for public and agency review. 6

"Augmentation" issues:

Length of study:

We find the one year baseline study for the BAC too short. For a proper study, several annual cycles are needed especially for hydrologic information due to changes in rainfall patterns from year to year. 7

Monitoring:

The water monitoring should include the measurement of water flow under Highway 3134. The swamp on the west side of the highway is presently in the JLNHPP. This highway bisected the BAC in 1977. There should be water flow monitoring at the culverts which allow water to pass under the highway. The conditional permit given to the DOTD and the congressional authorization for the highway requires that normal water circulation be maintained. It has now been over 30 years since the highway embankment was completed. How much subsidence has there been? Are all the culverts open to normal water exchange under the highway? What is the effective culvert cross sectional area available for water flow? Is there tidal exchange at the culvert locations? If so, can it be measured on both sides of the highway? 8

Degrading levees:

We agree that oil and gas drill hole canals should have the spoil banks degraded and in some instances the canals should be plugged. This should be done carefully since the canals and spoil banks have been there for over 40 years. A hydrologic study should consider that the swamp may be in equilibrium with the man-made ponding and drainage. Changes to the system must not harm the ecosystem of the BAC. (9)

Opening Bayou aux Carpes shell dam:

As with degrading the levees, the opening of the dam to water flow from Bayou Barataria, during hurricane surges, may harm the swamp. Salinity ranges need to be measured in Bayou Barataria to assure that flow into the swamp will not harm or raise salinities within the leveed system. (10)

Estelle stormwater diversion:

There is insufficient information on how contaminants in the effluent discharge from the Estelle Pumping Station will be measured. A complete list of the analytes should be included in the amended IER. We are concerned that diverting the urban effluent into BAC may not be beneficial for the wetlands. The effluent of many of the pumping stations, monitored by Jefferson Parish, have been documented to contain lead, arsenic, chromium and mercury. (11)

How much monitoring will take place to properly document the water quality of the effluent over decades if the water will be used in the BAC? As urbanization increases in the basin, water quality will decline as more polluted urban runoff is pumped into the Estelle Canal.

We suggest that the effluent be monitored for chemicals which have shown up in Jefferson Parish analysis of effluent discharge into the Barataria Preserve (such as the Ames and Crown Point pumping stations). Water effluent monitoring must be continued over the life of the project, (12)

The Audubon Council requests a meeting with the federal and state resource agencies to review the results of the "augmentation studies". There must be public input and review before the final decision is made to modify the BAC 404(c) ecosystem. (13)

Inclusion in the Barataria Preserve:

The Bayou aux Carpes 404(c) area will be included within the Jean Lafitte National Historical Park and Preserve this year. Senate bill S. 22 has passed the US Senate and it is expected to pass the House soon. There are now two reasons to protect the BAC well into the future as, 1) a 404(c) area and, 2) part of the Barataria Preserve of the National Park.

Revision of the DIER necessary (IER addendum): (14)

Because there are still important data omitted from the draft document, we request that a revised/amended IER be prepared and circulated to the public and resource agencies for review. According to the federal register, "an IER addendum responding to comments received will be completed and published for a 30-day public review period." (USACE, 2007). We are formally requesting that IER-12 be amended to include omitted information, and full responses to the public/agency comments on the DIER-12. The document should include:

1). Design of the sector gate complex with alternative designs presented- not "conceptual diagrams".
2). Alternative designs for the innovative floodwall to avoid the 404(c) area
3). Review of all dredged sediment data and chemical analyses. Decision whether dredged sediments can be utilized for beneficial purposes in the JLNHPP, based on acute and chronic impacts of toxic sediments to benthic organisms.
4). More specifics on the length of time and parameters measured for all studies discussed in the "augmentation" section of the DIER - including beneficial or adverse impacts to the 404(c) wetlands.

5). Monitoring plan details - include detailed section on rationale for placement of water flow instruments and hydrologic modeling
6). More details on the relocation of the Enterprise pipeline and its impacts to the 404(c) area.
7). A thorough analysis of the proposed diversion of urban discharges from the Estelle pumping station into the 404(c) wetlands. Also, include the impacts of pollutants on the 404(c) area.

All these issues and other data gaps must be thoroughly discussed and presented in the amended IER.

Summary:

1) In conclusion, we oppose Alternative 2, the preferred alignment, as presented in the DIER-12. The Corps admits that the engineering designs for the floodwall and gate complex are not complete and therefore we believe the design can be modified to avoid the 404(c) wetlands entirely. The new designs and supportive data should be presented in a IER addendum for public review and comment. We will reconsider our position based on the new document.

2) We also recommend that EPA deny the request by the Corps to modify its final determination on the Bayou aux Carpes CWA 404(c) since the Corps hasn't finished its alternative engineering designs for the floodwall and gate complex. It would be premature for any action to be taken by EPA at this time.

3) We oppose a process whereby any deficiencies in this IER will be answered sometime in the future - as part of a catchall document. The public must be engaged in one single process which comes to a single conclusion - not a decision process which is segmented and strung out for several years on a specific IER. It is supposed to be an individual environmental report.

4) It appears that this DIER was rushed through without the adequate internal review. This is precisely what we were concerned about with the Alternative Arrangements (USACE, 2007). It appears that expediency was the prime factor - not a thorough evaluation of the environmental impacts and avoidance. It would be a better process if the Corps allowed time for its engineers to carefully design and check its own proposals and then the public could review and comment on a document that was ready rather than one which is incomplete.

Sincerely,

Barry Kohl

Dr. Barry Kohl
President, LAC

cc:
Delta Chapter Sierra Club
Gulf Restoration Network
National Audubon Society
National Wildlife Federation
Tulane Environmental Law Clinic
Horst Greczmiel, CEQ
National Wildlife Federation
National Park Service
US Fish and Wildlife Service
National Marine Fisheries Service
La DNR

References:

MacDonald, D.D., C.G. Ingersoll, T.A. Berger, 2000. Development and Evaluation of consensus -based sediment quality guidelines for freshwater ecosystems. Arch. Environmental Contamination and Toxicology, v. 39, p.20-21.

USACE, 1963. Review of reports: Harvey Canal-Bayou Barataria Levee, Louisiana. NO District of USACE , Sept. 20, 1963. Appendix A

USACE, 1971. Harvey Canal-Bayou Barataria Levee, New Levee Phase I. As Built Plans. Gulf Intracoastal Waterway, Jefferson Parish, LA. (provided by Fred Chatry, Chief Engineering Div., to B. Kohl, 2/15/77).

USACE 1977. (Jeff Parish Wetlands) 26, Conditional permit for Lafitte-Larose Highway segment from Estelle to Wagner Ferry Bridge.

USACE 1998. Water Resources Development in Louisiana, 1998. USACE, New Orleans District. 177 pp.

USACE 2007. Adoption of Alternative arrangements under the National Environmental Policy act for New Orleans Hurricane and Storm Damage Reduction System. Federal Register, March 13, v. 72, p. 11337-11340.

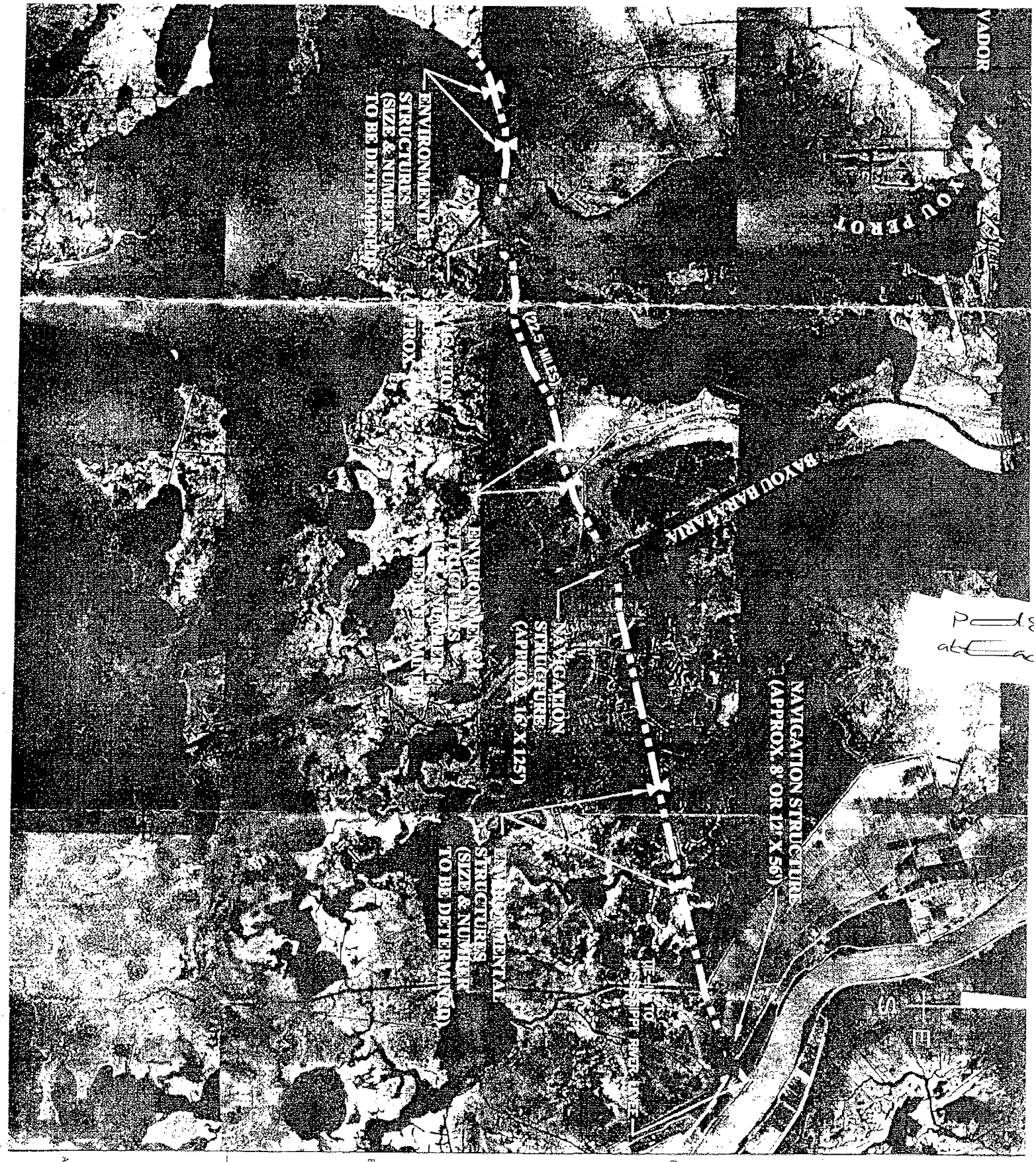

FIGURE 2
LOWER JEFFERSON
ALTERNATIVE

MAIN OFFICE LOCATION
1197 ELTSAN DRIVE
HOUMA, LA. 70363
PHONE (985) 868-3434
FAX (985) 868-8513
AN ADDITIONAL OFFICE IN WESTWEGO, LA.

DESIGNED BY		PLOT SCALE	PLOT DATE
CHECKED BY			
DRAWN BY		NONE	9/15/06
DATE	9/15/06		

DESIGN FILE NAME: figure 2 and 3.dwg
SUBMITTED BY
SOLICITATION NO.
X

Shaw Shaw Coastal, Inc.

MARK DESCRIPTION DATE APPR

RAY CHAMPAGNE
504 214 4689

"Houck, Oliver A "
<ohouck@tulane.edu>
02/12/2009 12:05 PM

To Barbara Keeler/R6/USEPA/US@EPA
cc
bcc
Subject In re modification of EPA 404 (c) determination, Bayou Aux Carpes

History: This message has been forwarded.

Dear Ms Keeler,

I am writing to request that EPS deny this modification, for two reasons.

The first is a matter of law. Any modification must meet the stringent alternatives test of the 404(b)(1) guidelines, and the burden is on the applicant to show that less wetland-taking alternatives are not available. To my knowledge, no such showing has been made. The modification would also violate the EPA-Corps Memorandum of Understanding establishing avoidance as the first principle of federal policy for all such decisions. 1

The second is an equally important matter of policy. A 404 c area, once designated and in this case, as I recall, paid for by the public, is held in trust for the public and should not be alienated even for public purposes, again, without a showing of need. Were a lesser standard to obtain, then all such areas would be subject to destruction whenever the government wanted, and left with no protections greater than Section 404 in the first place. American taxpayers paid for more than that, and their investment should be honored. 2

Thank you for your attention to these views.

Oliver A Houck
Professor of Law
Tulane Law School

LEAGUE OF WOMEN VOTERS OF NEW ORLEANS
1215 Prytania St., New Orleans, La. 70130

February 12, 2009

To: Barbara Keeler (6WQ-EC)
EPA Region 6
Dallas, TX
From: Wendy King, President
E-mail: wking@tulane.edu
League of Women Voters New Orleans

Re: Denial of Army Corps of Engineers request for modified CWA Section 404 (c) determination.

Dear Ms. Keeler,

The LWVNO strongly supports flood protection for the West Bank of Jefferson Parish. However, in accordance with long standing positions protecting wetlands, held by local, state and national Leagues, we respectfully request that applications made by the USACE to have the 404 designation modified be denied.

- It is apparent that alternative solutions to flood protection for this area have not been fully considered. (1)
- Tampering with 404 National Significant Wetlands could establish a precedence which may well have unintended consequences. (2)
- Using contaminated sediments as fill in the Jean Lafitte National Historical Park & Preserve should not be an option. (3)
- A complete and thorough environmental impact study should be undertaken by COE & EPA before any actions in wetlands occur, and before review of such plans are presented to the public for input. (4)

The LWVNO appreciates the opportunity to submit comments concerning this matter.

Sincerely,

Wendy King, President, LWVNO

Wendy King

Barbara Keeler/R6/USEPA/US
02/12/2009 05:03 PM

To Michael Barra/R6/USEPA/US@EPA, Patrick Rankin/R6/USEPA/US@EPA, Brian Frazer/DC/USEPA/US@EPA, Ann
cc
bcc
Subject Lower Miss Riverkeeper Comments -- Bayou aux Carpes

----- Forwarded by Barbara Keeler/R6/USEPA/US on 02/12/2009 05:01 PM -----

Paul Orr
<paul@leanweb.org>
02/12/2009 04:57 PM

To Barbara Keeler/R6/USEPA/US@EPA
cc
Subject Corps request for EPA to modify the CWA Sec 404(c) determination for Bayou Aux Carpes

Please deny the Corps Of Engineers request for EPA to modify the CWA Sec 404(c) determination for Bayou Aux Carpes. We believe that the 404(c) wetlands can be avoided while still accomplishing the goals of the project. We support Louisiana Audubon Council's recommendations on this project submitted in the letter: "Re: Combined public hearing on the Draft IER-12, on the modification of CWA Sec. 404(c) determination for Bayou aux Carpes; and hearing on GIWW West Closure Complex."

1

Sincerely,
Paul Orr
Lower Mississippi Riverkeeper

United States Department of the Interior

NATIONAL PARK SERVICE
Jean Lafitte National Historical Park and Preserve
419 Decatur Street
New Orleans, Louisiana 70130-1035

IN REPLY REFER TO:

N-16

February 11, 2009

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733.

Dear Ms. Keeler:

On November 4, 2008, the U.S. Army Corps of Engineers (Corps) sent a request to the Environmental Protection Agency (EPA) asking for a modification of EPA's Bayou aux Carpes 404 (c) Final Determination. The purpose of the modification would be to allow the construction of the so-called West Closure Complex (WCC) as outlined in draft Individual Environmental (IER) 12, titled "West Bank and Vicinity, Gulf Intracoastal Waterway (GIWW), Harvey and Algiers Levees and Floodwalls, Jefferson, Orleans and Plaquemines Parishes," Jean Lafitte National Historical Park and Preserve offers the following comments.

The National Park Service maintains a strong interest in the integrity of the Bayou aux Carpes 404 (c) area (BAC) since it is linked both hydrologically and ecologically to areas within the boundary of the Barataria Preserve. A bill that has passed the Senate and is being considered in the House would change the boundary of the Preserve to include the federally owned land within the area. The proposed change requested by the Corps would affect a portion of that federal land.

NPS is fully cognizant of the Congressional directive under which the Corps is working to provide enhanced 100-year hurricane protection to the approximately 250,000 people living on the West Bank of the New Orleans metropolitan area. The Corps presented arguments for their conclusion that they could achieve the highest level of risk reduction by building a floodwall, navigation gate, and pumping station complex in the Gulf Intracoastal Waterway adjacent to the BAC 404 (c) area.

In that light we worked with the EPA, the Corps, the U. S. Fish and Wildlife Service and other federal, state, and local partners to devise a plan that would provide full protection while minimizing environmental impacts. Specifically, we jointly convinced the Corps to abandon its plans for a cross-basin floodwall (the so-called Southern Closure Complex) across the BAC. We jointly helped them devise a new plan that reduced to what they contend is the absolute minimum the footprint within the BAC. The compromise plan is the WCC. It would destroy a narrow strip of early successional mixed bottomland forest growing on an artificial spoil-bank created by deposition of dredged material from the GIWW.

The decision by EPA will be based upon a wide range of considerations, which cannot be addressed by NPS. We address instead specific questions about the impact of the Corps proposal on the ecological and hydrological integrity of the BAC and on whether or not the WCC would irreparably impair current or potential park resources.

Congress created Jean Lafitte National Historical Park and Preserve to, in part, "preserve significant examples of the natural and historical resources of the Mississippi delta region." The Barataria Preserve was located adjacent to the New Orleans metropolitan region, with its boundaries made up, in part, of existing hurricane protection levees. NPS manages the resources entrusted to its care adaptively in response to that and other anthropogenic constraints on the restoration of a fully functioning natural ecosystem.

Our preferred alternative would be that the 404 c site be avoided altogether. That being said, we have determined based on preliminary review that the direct impact proposed by the Corps request is confined to an already altered and disturbed strip of artificial levee. While that levee mimics a natural levee, its most important contemporary hydrological function, which is to isolate the interior wetlands of the BAC from rapid tidal movement and long-term erosional pressures, will not be compromised by the project. Disturbed bottomland habitat directly destroyed by the floodwall complex will be mitigated for by the Corps.

In addition, the Corps has agreed to incorporate project features that will improve hydrological function within the BAC. If Corps sponsored scientific analysis indicates that such measures are advisable and said analysis can be substantiated by NPS, these features may help restore more natural historic water flows by removing man-made impediments. On balance, therefore, NPS concludes that the project has the potential to provide a net benefit to the resource.

Should EPA grant the Corps request, we look forward to reviewing future design specifications as they are refined. It is our hope that as the technical analysis proceeds, the impact on the BAC can be further reduced. Please do not hesitate to contact me on (504) 589-3882 extension 111 or Chief of Resource Management David Muth on (504) 589-3882 extension 128.

Sincerely,

David Luchsinger
Superintendent

cc: Gib Owen, USACOE
Angela Trahan, USFWS

"Gerald A. Spohrer"
<Gerald.Spohrer@wjld.com>
02/16/2009 11:25 AM

To Barbara Keeler/R6/USEPA/US@EPA
cc
bcc
Subject GIWW WEST CLOSURE COMMENTS

History: This message has been forwarded.

Ms. Keeler: The following comment is from Southeast Louisiana Flood Protection Authority - West regarding the GIWW West Closure Project as proposed by the U. S. Army Corps of Engineers.

Southeast Louisiana Flood Protection Authority - West
7001 River Road
Marrero, Louisiana 70072

The Southeast Louisiana Flood Protection Authority - West and its member levee districts, the West Jefferson Levee District and the Algiers Levee District support and endorse the alignment proposed by the U. S. Army Corps of Engineers plan, entitled GIWW West Closure, WBV-90, that would allow construction of a navigable flood gate and pumping station south of the Algiers and Harvey Canal.

As currently proposed the project would require construction of a floodwall in the EPA 404 c, Bayou aux Carpes area. We understand EPA may propose the floodwall to be constructed in the waterway away from, but adjacent to the Bayou aux Carpes area. 1

The Southeast Louisiana Flood Protection Authority – West objects to the possible EPA position to have the floodwall to be constructed in the waterway and has serious concern that this plan would cause an unnecessary project construction expense and would definitely expose the floodwall to damage from marine traffic and significantly increase the cost of maintenance.

There would be NO long term damage to the Bayou aux Carpes area from construction of the U. S. Army Corps of Engineers plan. Any momentary impact to the area would be minimal and of a short duration.

The Southeast Louisiana Flood Protection Authority - West and its member levee districts, the West Jefferson Levee District and the Algiers Levee District believe the benefits of the U. S. Army Corps of Engineers plan for the GIWW West Closure, WBV-90, far out weigh the possible EPA proposal and therefore urge construction of the project as currently proposed by the U. S. Army Corps of Engineers.

Sincerely,

Gerald A. Spohrer
Chief of Operations
Southeast Louisiana Flood Protection Authority - West
Office - (504) 340-0318
Direct - (504) 347 6847
Fax - (504) 340-7801

"Raymond Butler"
<info@gicaonline.com>
02/18/2009 09:17 PM

To Barbara Keeler/R6/USEPA/US@EPA

cc '"Lynn Muench"' <lmuench@vesselalliance.com>, <Lincoln.D.Stroh@uscg.mil>, "Capt. Pauline Cook" <Pauline.F.Cook@uscg.mil>, <cdfelder@channelship.com>,

bcc

Subject Bayou Aux Carpes Clean Water Act, Section 404C Modiification Request, EPA, IER 12

Dear Ms. Keeler,

Please accept the following comments offered on behalf of the Gulf Intracoastal Canal Association (GICA) regarding the EPA's request to move certain floodwalls associated with the Westbank Closure Complex Flood Protection Project off of the Section 404C parcel and into the navigable waters of the Gulf Intracoastal Waterway near the confluence of the Harvey and Algiers Canals. We reference the below website: (1)

www.nolaenvironmental.gov .

The GICA strongly objects to any modifications of the project design, such as those suggested by the EPA, that will further restrict the navigable waters of the United States on the Intracoastal Waterway in this reach. This portion of the GIWW is one of the highest traveled reaches of the waterway, moving over half the total tonnage of the entire 1300 mile long waterway. Near 70 million tons per year of petroleum, petrochemicals, chemical products and other bulk freight are moved on the waterway here. Most of this cargo is hazardous in nature and would pose significant environmental risk to this area should a barge incident be incited by the presence of this floodwall and its associated restrictive structures. Risks to navigation safety, the environment, and the public would be unnecessarily increased due to the presence of the supporting structures required by the propose design change. An major accident with environmental repercussions happening right before a hurricane could bring about catastrophic results for the city of New Orleans as well as the pristine environmental area adjacent. (2)

By copy of this objection to the United States Coast Guard Sector Commander, New Orleans AOR, we are requesting the Coast Guard review this proposed design change and submit their comments as well. (3)

Sincerely,

Raymond Butler
Gulf Intracoastal Canal Association
2010 Butler Drive
Friendswood, Tx 77546
281-996-6915 Office
713-882-9750 Cell
281-992-4383 Fax
www.gicaonline.com

"Gale Helton"
<ghelton@hydra-dyne.com>
02/19/2009 12:58 PM

To Barbara Keeler/R6/USEPA/US@EPA
cc
bcc
Subject Hydradyne Hydraulics LLC

Barbara Keeler (6WQ-EC)

EPA Region 6

1445 Ross Avenue,

Dallas, TX 75202-2733.

Phone: (214) 665-6698

E-mail: keeler.barbara@epa.gov

Dear Ms. Keeler:

Hydradyne Hydraulics LLC operates a Sales, Service and Fabrication concern at 2801 Peters Road, Harvey, La. We have operated along the Harvey Canal for over 40 years. We employ over 80 people in our facility on Peters Road. Our Corporate Headquarters is in Atlanta, and our primary business customers are located in Texas. We have maintained our company headquarters here in Harvey because of the history of our company and the loyalty of our employees working and living in the immediate area. We hope to continue to maintain this facility and grow our business as in the past.

It is my understanding that the EPA is currently taking comments on the Corps of Engineers proposed plan to build the West Closure Complex (WCC) in the area south of the Harvey & Algiers Canals.

The levee alignment for the East of the Harvey Canal Project initially began sometime around 1987. Shortly before Hurricane Katrina, we felt assured that a final authorized alignment would provide the west bank with the desperately needed hurricane protection. However, with the levee failure during Katrina, the West Bank and Vicinity Project had to be redesigned and the project again went to the drawing board.

During Katrina, our building was wind damaged, but with the diligence of our employees, 19 days later on September 19, we were back here and operational.

Over the past two years, the Corps has studied five different alternatives for levee protection and has selected the WCC levee option in an effort to finalize this project. The businesses along the canal as well as the residents of the West Bank had NO protection during Katrina. During Hurricane Rita – a storm some 300 miles to the west - businesses along the Harvey Canal saw

floodwaters coming dangerously close to the top of the existing levee. *We have waited a long time, and we believe it is imperative that we move this project forward.*

I certainly understand and appreciate the concerns that have been expressed for environmental impacts to the Bayou aux Carpes 404(c) area. It is my understanding that several agencies worked together with the Corps to help adopt a comprehensive plan to minimize adverse impacts within the 404(c) area and we applaud their effort. But much has been sacrificed by the business community over the past 20+ years. Some businesses are now behind the flood wall on Peters Road and others moved away completely.

I urge the EPA to move forward and to modify the 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination. This project has full funding and it is critical that we move forward to protect the businesses and the residents East of the Harvey Canal.

A recent Economic Impact study of businesses along the canal (from Lapalco Blvd, to the Hero Pumping Station) revealed a total employment of 1,619 employees with an aggregate payroll of more than $67.5 million and showed a direct and indirect spending of over $1.1 billion. The potential for economic loss from a direct hit by a storm like Hurricane Katrina would be catastrophic. And, any delays in this project could mean the loss of companies and jobs.

Weighted against the many alternative alternatives, we believe this to be the best proposal, and will provide the needed protection necessary of our businesses to grow and prosper without fear of disaster.

Again, I urge you to modify the 404 (c) act to allow the WCC project.

Sincerely,

N. Gale Helton

Vice President

Hydradyne Hydraulics LLC

P.O. Box 760

Harvey, LA. 70059-0760

504-227-0254

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AARON F. BROUSSARD
PARISH PRESIDENT

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

Our Mission Is:
"Provide the services, leadership, and vision to improve the quality of life in Jefferson Parish."

February 20, 2009

Ms. Barbara Keeler
Coastal & Wetlands Planning Coordinator
EPA Region 6 (6WQ-EC)
1445 Ross Ave., Suite 1200
Dallas, TX 75202-2733

Dear Ms. Keeler:

As part of the critical Hurricane Risk Reduction System for the West Bank of Jefferson, Orleans and Plaquemines parishes, the Corps of Engineers is proposing the construction of the GIWW West Closure Complex located just west of where the Harvey and Algiers canals meet. Consisting of navigable floodgates, a 20,000 cubic feet per second drainage pumping station, levees, and floodwalls, this complex would block the storm surge from entering the Harvey and Algiers canals and provide substantial risk reduction to the nearly 250,000 residents in these areas. As part of this complex a floodwall along the west bank of the Gulf Intracoastal Waterway just south of the Old Estelle outfall canal will have to be constructed. This floodwall as currently planned requires that the EPA issue a modification to Bayou Aux Carpes 404c Final Determination to allow the Corps to construct the wall within 100 feet of the bank line for a distance not to exceed 4200 feet. In the current plan the wall is protected from barge impacts from the numerous barge tows traveling the Harvey and Algiers canals. This natural berm protection when enhanced will provide the most reliable protection for the wall and provide the most reliable system free from the real risk of damage from barge impacts.

At a recent public hearing, several representatives from environmental groups requested that the EPA deny the Corp's request to modify the 404c Final Determination and instead force the construction of the wall in the water adjacent to the bank line. While we understand that this is technically possible, we also understand that it will require substantial delay in construction time and result in cost increases in excess of fifty million dollars. Most importantly, the risk reduction provided by the existing bank line will be eliminated forcing the wall farther into the navigable barge channel and exposing the wall to barge impact damage that could prove catastrophic if it were to occur just prior to a tropical event. This is unacceptable and cannot be allowed to occur. The Corps has worked for many months with all stakeholders including those in the environmental community to reduce impacts resulting from this necessary flood protection project and has developed a plan that truly minimizes impacts to the environment.

The project, as proposed is the single most important factor in providing hurricane protection to the residents and businesses on the westbank of Jefferson Parish. The impact to this 10 acres on the fringe of Bayou Aux Carpes 404c wetland should be allowed in the best interest of the residents of Jefferson Parish and the taxpayers of this nation. Accordingly, I am requesting that the EPA expeditiously grant the Corps of Engineers' request to modify the Bayou Aux Carpes 404c Final Determination and allow for construction of this vital and historic flood protection.

Sincerely,

AARON F. BROUSSARD
Parish President

SUITE 1002 - 1221 ELMWOOD PARK BOULEVARD - JEFFERSON, LOUISIANA 70123
P. O. BOX 10242 JEFFERSON, LOUISIANA 70181-0242 - (504) 736-6400

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Plaquemines Parish Government

BILLY NUNGESSER
Parish President

8056 Hwy. 23, Suite 200
Belle Chasse, LA 70037

(504) 392-6690
(504) 274-2462
1-888-784-5387
Fax: (504) 274-2463

February 20, 2009

Ms. Barbara Keeler

Environmental Protection Agency

Dear Ms, Keeler:

The following is Plaquemines Parish Government's position concerning the Bayou aux Carpes Clean Water Act Section 404(c) modification for construction of the GIWW West Closure Complex.

The Parish agrees with the Corps' request for the 404(c) modification. If denied, this would have substantial construction, cost and flood protection delays for Plaquemines, Jefferson and Orleans Parishes. The time, cost and overall environmental savings are the very reasons this project has been selected over the parallel levee protection plan. This is very important to the protection of hundreds of thousands of human lives and property in all of our parishes. Plaquemines Parish is currently working to develop a mitigation plan to which any adverse environmental impacts could be assigned. Also, Plaquemines Parish Government is working diligently developing a coastal restoration project to help with the rebuilding of Plaquemines Parish of which the sector gate forms a necessary and integral part.

Safety is another issue. Moving the floodwall into the water from the existing bank will cause a much higher probability of marine traffic impacting the floodwall structure; thus, again endangering the citizens and property of the mentioned parishes with flooding.

We are urgently requesting to allow this modification for the Corps to provide this necessary flood protection for our citizens.

Sincerely,

Billy Nungesser

Parish President

"Philip J. Troxclair"
<ptroxclair@bayousteel.com
>

02/19/2009 02:03 PM

To Barbara Keeler/R6/USEPA/US@EPA
cc
bcc
Subject IER 12

As a business along Peters Road in Harvey, Louisiana, I strongly support the plans of the Army Corps of Engineers to construct a lock and floodwall around the 404c Bayou aux Carpes wetlands. I understand the construction will affect approximately 9.6 acres of this sensitive area, but we as a community need the protection from storm surge that the gate will provide. I appreciate the efforts of the Corps of Engineers and the EPA to lesson the affect upon this area. I urge the EPA to allow the Corps of Engineers to proceed with this project and provide the flood protection that is needed to protect businesses and individuals in Algiers, Belle Chasse, Harvey, and Marrero, Louisiana.

Philip Troxclair
Mississippi River Recycling
4390 Peters Road
Harvey, LA 70058

MISSISSIPPI RIVER RECYCLING

DIVISION OF
BAYOU STEEL CORPORATION

2009 MAR -4 AM 9:02
ECOSYSTEMS PROTECTION BR.

February 19, 2009

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Dear Ms Keeler:

Our company is located along the Harvey Canal in Louisiana. We are strongly in support of the Corps of Engineers IER 12 which includes a lock and floodwall along the 404c Bayou aux Carpes area. I have attended many stakeholder meetings at which the Corp has discussed their alternatives to not affect this area. After much deliberation and calculation the current alternative has proven to be the best case scenario in time and money to expedite the project. The west bank of the Mississippi River of the Metropolitan New Orleans Area has long needed surge protection from hurricanes. The current plan would provide that protection.

I appreciate the efforts put forth by all involved to reduce the affects of the surge protection on this environmentally sensitive area. The original plan affected almost half of the 404c area, but the latest plan only affects some 9.6 acres. I believe this small sacrifice is necessary to provide the protection that our area needs. I implore the EPA to grant the Corps of Engineers request to build this project.

Sincerely,

Philip Troxclair
Harvey Yard Manager

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From: Allen Hero <heroncson@bellsouth.net>
To: Barbara Keeler/R6/USEPA/US@EPA

Date: Friday, February 20, 2009 05:10PM
Subject: IER12

History: This message has been forwarded.

Ms Keeler,

I am the managing partner of Numa C. Hero & Son which owns properties in Jefferson and Plaquemines Parishes. We are confident that this project will provide a better protection plan than the single levee system now in effect and encourage its construction.

The comments as to the ten acres of concern in the Bayou aux Carpes area seem to be misguided. The thin strip along the Intracoastal Canal is not all flotant marsh, but a berm area built up as a result of wave action from the traffic in the channel . 1

Allen Hero
Numa C. Hero & Son
428 Planters Canal Road
Belle Chasse, LA 70037

From: "Dennis Terry" <dennis.terry@gasandsupply.com>
To: Barbara Keeler/R6/USEPA/US@EPA
cc: "Ricky Chiasson" <rchiasson@indweld.com>, "Gary Hooter" <ghooter@indweld.com>

Date: Friday, February 20, 2009 12:30PM
Subject: Finalization of the 100-year hurricane protection project
History: This message has been forwarded.

Ms. Keeler,

Attached is our letter requesting the EPA to move forward and modify the 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination.

Thanking you in advance for your attention to this matter.

Sincerely,

Dennis R. Terry
Controller
IWS Gas and Supply
dennis.terry@gasandsupply.com

Attachments:

EPA.pdf

INDUSTRIAL WELDING SUPPLY

Industrial Welding Supply Co., Inc.

MAIN OFFICE
111 Buras Drive
Belle Chasse, LA 70037
(504) 392-2400

1452 4th Street
Harvey, LA 70058
(504) 362-9395

1797 Grand Caillou Rd.
Houma, LA 70363
(985) 876-7575

41187 Hwy. 23 North
Boothville, LA 70038
(985) 534-9774

60077 Hwy. 11 N.
Slidell, LA 70458
(985) 645-0808

20961 Hwy. 1
Golden Meadow, LA 70357
(985) 475-5143

February 19, 2009

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Dear Ms. Keeler:

IWS Gas and Supply has been on the East side of the Harvey Canal for over 25 years and during that time we have monitored the Corps plans to finalize the 100-year hurricane protection project.

The levee alignment for the East of the Harvey Canal Project has been studied, reviewed and changed several times since 1987. Shortly before Hurricane Katrina, we felt assured that a final authorized alignment would provide the west bank with the desperately needed hurricane protection. However, with the levee failure during Katrina, the West Bank and Vicinity Project had to be redesigned and the project again went to the drawing board.

Since hurricane Katrina, the Corps studied numerous alternative levee options in an effort to finalize this project. What resulted was the first phase of the new 100 year protection project, (i.e., the flood walls along Peters Road). Now is the time for the final phase of this project needs to move forward.

I certainly understand and appreciate the concerns that have been expressed for environmental impacts to the Bayou aux Carpes 404(c) area. It our understanding that several agencies worked together with the Corps to help adopt a comprehensive plan to minimize adverse impacts within the 404(c) area and we applaud their effort. But the business community has sacrificed much over the past 20+ years. Some businesses are now behind the floodwall on Peters Road and others have simply disappeared.

We would urge the EPA to move forward and modify the 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination. This project has full funding and it is extremely critical that we move forward to protect the businesses and the residents located east of the Harvey Canal.

Recently an Economic Impact study of businesses along the canal (from Lapalco Blvd, to the Hero Pumping Station) revealed a total employment of 1,619 employees with an aggregate payroll of more than $67.5 million and showed a direct and indirect spending of over $1.1 billion.

INDUSTRIAL WELDING SUPPLY

Industrial Welding Supply Co., Inc.

MAIN OFFICE
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(985) 534-9774

60077 Hwy. 11 N.
Slidell, LA 70458
(985) 645-0808

20961 Hwy. 1
Golden Meadow, LA 70357
(985) 475-5143

This study excluded companies such as IWS Gas and Supply and along the upper portion of Peters Road, the Destrehan corridor or Engineers Road. The potential for economic loss to this area is astronomical and we would urge the U. S. Army Corps of Engineers to approve the final draft of the IER 12 and to move the West Closure Complex project to completion.

Sincerely,

Gary Hooter
President
IWS Gas and Supply

Ricky (Mousey) Chaisson
President
IWS Gases

Dennis Terry
Controller
IWS Gas and Supply

From: Ken <kenanney1956@aol.com>
To: Barbara Keeler/R6/USEPA/US@EPA

Date: Friday, February 20, 2009 10:58AM
Subject:
History: This message has been forwarded.

I recently read in the local paper that a hearing was held at the Corps of Engineers in regards to the Westbank Hurricane Project. I'm sure you are aware that this project represents the last link in full protection for the West Bank Community.

We have lived on the West Bank for more than 25 years. When I first moved here, the Corps had just begun laying out the alignment of the levee and our Congressional delegation worked hard to fund the project. What we got was a piecemeal project. And still, all these years later, as we leave town with every storm, we know our home, our community and our family and friends are not protected and that full protection is still years away!

We fully understand and appreciate the incredible value we have in the Bayou aux Carps area. However, if this project is not moved forward, the risk to the reside nts and businesses here would be catastrophic. I fully support the Corps proposed West Closure Gate project and ask that the EPA move this project forward by modifying 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination .

Sincerely,

Connie & Kenny Nanney

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HARVEY CANAL INDUSTRIAL ASSOCIATION

January 19, 2009

Mr. Gib Owen
U. S. Army Corps of Engineers
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-RS
P. O. Box 60267
New Orleans, LA 70160-0267

RE: Draft Individual Environmental Report #12 (IER #12

Dear Mr. Owen:

The Harvey Canal Industrial Association (HCIA) is a business organization that represents the interests of businesses in the Harvey Canal area. We have been a driving force for area improvements for more than sixty years. We represent the vast majority of companies that will be impacted by Corps of Engineers flood control efforts on the West Bank of Jefferson Parish.

The HCIA has been working with local, state and federal officials on the levee alignment for the East of the Harvey Canal Project since 1987. Shortly before Hurricane Katrina, we felt assured that a final authorized alignment would provide the west bank with the desperately needed hurricane protection. However, with the levee failure during Katrina, the West Bank and Vicinity Project had to be redesigned and the project again went to the drawing board. What resulted was the first phase of the new 100 year protection project, i.e. the flood walls along Peters Road. Businesses between Lapalco Boulevard and the Hero Pumping Stations are now sandwiched in between the newly constructed flood wall with no permanent protection.

Since 2005, numerous alternative flood protection options and cost/benefit ratios have been studied to determine the best option for full risk reduction East of the Harvey Canal. The HCIA supports the Corps of Engineers proposed West Closure Complex (WCC) as identified in the IER 12 proposal. We will, however, continue to work to provide those affected businesses with a supplemental protection levee for the smaller storms, tidal surges or rain events that may enter the canal when the WCC is not needed.

We certainly understand and appreciate the concerns that have been expressed for environmental impacts to the Bayou aux Carpes Section 404(c) area. It is our understanding that there has been a tremendous interagency collaboration, especially with EPA, to help identify and adopt a comprehensive plan to minimize adverse impacts within the 404(c) area during construction and for

P. O. BOX 397 · HARVEY, LA · 70059 · PHONE (504) 367-1721 · FAX (504) 367-8927
EMAIL: hcia@bellsouth.net

a long term affect once the project is completed. But we feel strongly that much has been sacrificed by the business community – even to one large employer moving to another part of the State.

The HCIA supports the Corps' request to the EPA to modify the 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination and we support the current plan for the WCC as outlined in the EIR 12 report. We feel the WCC alignment will provide the much needed and long awaited 100 year storm protection for the West Bank of Jefferson Parish.

The businesses along Peters Road have suffered long enough. Numerous rain events, hurricanes and tropical storms have flooded our businesses and threatened residential neighborhoods. The HCIA, in cooperation with other business organizations, commissioned an Economic Impact Study in late 2007. The study area included all the businesses from Lapalco Boulevard south to the Hero Pumping Station. The study revealed a total employment of 1,619 employees with an aggregate payroll of more than $67.5 million and showed a direct and indirect spending of over $1.1 billion.

This study did not include any companies along the upper portion of Peters Road, the Destrehan corridor or Engineers Road. The potential for economic loss to this area is astronomical and the HCIA urges the U. S. Army Corps of Engineers to approve the final draft of the IER 12 and to move the West Closure Complex project to completion.

Sincerely,

HARVEY CANAL INDUSTRIAL ASSOCIATION

Gerald J. Huffman, Jr.
President

Thomas G. Halko
P.O Box 8, 4518 Jean Lafitte Blvd.
Lafitte, LA 70067-0008

February 22, 2009

Attention: Barbara Keeler, Regional Coordinator, Region 6
United States Environmental Protection Agency

sent via e-mail at Keeler.barbara@epa.gov

Dear Ms Keeler:

RE: Bayou aux Carpes Clean Water Section 404(c), Corps project IER 12

Thanks to the EPA for extending the comment period. The Corps should have done the same. I hope a copy of this directed to them, as well as Senators Landrieu, Vitter and Representative Melancon will give voice to my displeasure at the Corps failure to extend their comment period.

In regards to the modification request, I ask that it be denied. Too often, sanctuaries -- protected, and those yet to be designated -- have been sacrificed in the name of progress and protection. The lack of clear thought and imagination that the Corps' GIWW flood gates and pumping project represents, is not deserving of any environmental offset.

Collectively, we need to take pause, and more completely examine the environmental, economic and culture impact of the project and the adverse environmental impact to the historic and economically vital communities of the Barataria Basin estuary. The funds for this one-half billion dollar project can be better spent with flood gates to the South as proposed by the "Donaldsonville-to-the-Gulf" study.

With best regards, I am yours truly,

Thomas G. Halko
Thomas G. Halko

c: U.S. Army Corps of Engineers
Landrieu
Vitter
Melancon
Kerner

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20 February 2009

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

RE: modification of CWA Sec. 404(c) determination for Bayou aux Carpes

Dear Ms. Keeler:

I am writing on behalf of the Louisiana Wildlife Federation concerning the infringement on the Bayou aux Carpes wetlands (9.6 acres) by the proposed Corps of Engineers hurricane protection work on the Westbank in the New Orleans Area. After reviewing the Corps' proposal, we believe that the Corps has not sufficiently evaluated alternative alignments of the project that could provide the desired protection while avoiding direct impacts to these important wetlands.

We understand the urgency of the Corps' work and do not wish to unnecessarily impede the swift accomplishment of its task. However, a more channelward alignment of the proposed barrier and berm may actually be more effective, and even thrifty, in achieving the protection needed, while sparing the loss and degradation of the Bayou au Carpes wetlands. 1

We therefore urge the Environmental Protection Agency to withhold approval of any request by the Corps of Engineers to alter the Bayou aux Carpes wetlands until the Corps completes a thorough evaluation of the alternative of aligning the proposed barrier and berm further channelward than the currently preferred alterative, and reports its finding to the public. At such time, a more informed decision can be made regarding the fate of these 9.6 acres.

Thank you for your consideration.

Yours in conservation,

Barney Callahan
President

C NOD, USACE

337 S. Acadian Thruway, Baton Rouge, LA 70806
P.O. Box 65239 Audubon Station, Baton Rouge, LA 70896-5239

Phone/Fax: (225) 344-6707
www.lawildlifefed.org

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
U.S. Coast Guard
Sector New Orleans

1615 Poydras St.
New Orleans, LA 70112
Staff Symbol: SPW
Phone: 504.565.5000

16630
23 February 2009

Environmental Protection Agency
Attn: Ms. Barbara Keeler (6WQ-EC)
Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Dear Ms. Barbara Keeler:

Please accept the following comments offered on behalf of the United States Coast Guard regarding the EPA's request to move certain floodwalls associated with the Westbank Closure Complex Flood Protection Project off of the Section 404C parcel and into the navigable waters of the Gulf Intracoastal Waterway near the confluence of the Harvey and Algiers Canals. We referenced the below website: www.nolaenvironmental.gov.

Sector New Orleans objects to any modifications of the U.S. Army Corps of Engineers (ACOE) project design that will further impede the navigable waters of the Gulf Intracoastal Waterway. If the ACOE has to reduce the width of the gates to accommodate the floodwall being moved into the channel, it will severely impact safe navigation through these flood gates in one of the most highly traveled waterways in Louisiana. We cannot have a floodwall in the waterway because of the increased hazards of vessels hitting the floodwall and causing a major marine incident. A shoreline is a necessity as a buffer between marine traffic and the floodwall.

The Gulf Intracoastal Waterway is paramount to the facilitation of commerce within the Gulf coast region and a floodwall in the waterway in this high traffic zone greatly increases the chances of potentially disastrous marine casualties.

If you have any questions please contact LCDR Eva Van Camp of my staff at (504) 565-5044.

Sincerely,

L. D. STROH
Captain, U. S. Coast Guard
Commander, Sector New Orleans

Copy: Gulf Intracoastal Canal Association

American Rivers
Thriving By Nature

NATIONAL WILDLIFE FEDERATION

February 23, 2009

Via Email: keeler.barbara@epa.gov

Ms. Barbara Keeler (6WQ-EC)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Request for Amendment of Designation Prohibiting Discharges of Dredged or Fill Material to the Bayou aux Carpes Clean Water Act Section 404(c) Site, Louisiana

Dear Ms. Keeler:

American Rivers and the National Wildlife Federation appreciate the opportunity to comment on the Request for Amendment of Designation Prohibiting Discharges of Dredged or Fill Material to the Bayou aux Carpes Clean Water Act Section 404(c) Site, Louisiana.

American Rivers is a national conservation organization working to protect and restore healthy rivers and wetlands for the benefit of people, wildlife, and nature. American Rivers has a long history of working for effective restoration of Louisiana's coastal wetlands to provide storm and hurricane protection for New Orleans and surrounding parishes, and of working to ensure effective utilization of Clean Water Act § 404(c) to protect nationally significant wetland resources. American Rivers has more than 65,000 supporters nationwide, and works in partnership with thousands of river and conservation organizations.

The National Wildlife Federation is the nation's largest conservation education and advocacy organization with over four million members and supporters, affiliate conservation organizations in some 47 states and territories, and which is dedicated to inspiring Americans to protect, preserve and restore wildlife, wildlife habitat and natural resources for our children's future. The Federation has a long history of active involvement with protection, restoration and wise management of our nation's precious water resources.

Our organizations believe that developing a reliable hurricane protection system for the New Orleans area is essential, and that time is of the essence in both the planning and construction of such a system. However, because protecting and restoring the region's storm buffering coastal

wetlands is an indispensable component of such a system, hurricane protection planning must include both comprehensive wetland restoration and the most robust efforts possible to protect existing wetlands in the first instance. This is particularly true for wetlands protected under Clean Water Act § 404(c).

We greatly appreciate the significant progress made by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) in reducing the proposed impacts to the Bayou aux Carpes 404(c) area. However, we believe that the Corps has the ability to completely avoid impacts to this ecologically sensitive and significant area, and it should be required to do so. In addition, it is clear that the record prepared by the Corps fails to provide sufficient information upon which a determination to modify the 404(c) could reasonably be made.

1. The Existing Record Fails to Provide Information Upon Which EPA Can Reasonably Evaluate the Bayou aux Carpes 404(c) Modification Request

As EPA is aware, the agency has used its authority under Clean Water Act § 404(c) quite sparingly. Of the tens of thousands of activities reviewed under Clean Water Act § 404 each year, only twelve have ever been prohibited under Section 404(c).[1] It is clear, then, that a 404(c) determination is of particular significance and is a recognition of the vital importance of the resources protected by that determination. As a result, a modification to a 404(c) determination should be granted only in the rarest of circumstances, and even then, only if the following analyses and tests are met:

First, it should be a fundamental prerequisite to consideration of any request to modify a 404(c) determination, that the applicant (here the Corps) have clearly demonstrated that no possible alternatives are available that would avoid impacts to the 404(c) area altogether. If such alternatives are available – or the applicant has failed to clearly demonstrate that they are not available – the requested modification should be denied. This is not an onerous requirement, and it is one that is squarely in line with the standard showings required under Clean Water Act § 404 and the 404(b)(1) Guidelines.[2]

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[1] Of these determinations, only three have ever been modified, and each modification was based on unique circumstances: (1) the 1988 404(c) determination for the Russo Development Corporation Site in New Jersey was modified in 1995 to allow Russo to seek authorization for a discharge on the site, which the company had previously illegally filled, if it performed significant mitigation; (2) the 1985 404(c) determination for Bayou aux Carpes was modified in 1992 to allow emergency relocation of a pipeline that would produce only minimal and temporary impacts; and (3) the 1984 404(c) determination for the M.A. Norden Company Site in Alabama was modified to allow construction of road over an existing railroad spur on the site after the company demonstrated that there were no practicable alternatives that would allow access to the company's upland area and EPA determined that the impacts to the 404(c) site would be minimal. http://www.epa.gov/owow/wetlands/regs/404c.html (last visited February 12, 2009).

[2] The Clean Water Act § 404(b)(1) Guidelines require that a § 404 permit (or an activity such as this that is otherwise subject to § 404) be denied "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem." 40 C.F.R. § 230.10(a). "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." This includes locating the project in an area not currently owned by the applicant. An

Second, in the highly unusual event that there are no possible alternatives that would completely avoid impacts to the 404(c) area, a modification should be considered only where a full and comprehensive assessment of impacts demonstrates that the requested modification is acceptable under the 404(c) criteria *and* the proposed project is of such national importance that it would warrant modification of an existing 404(c) designation.

These tests have not been met in this case. Critically, the Corps acknowledges the existence of an alternative that would avoid the 404(c) area altogether. In addition, neither the Draft Individual Environmental Report #12 (IER)[3] nor the Corps' November 4, 2008 request for modification provide sufficient information upon which a determination to modify the 404(c) could reasonably be made.

The lack of information in the IER is compounded by the segmented nature of the environmental review process being utilized for this project. IER#12 covers only a small portion of the proposed project, and critical analyses that should be carried out *before* the Corps makes a decision on the portion of the plan recommended in IER#12 will not be carried out until some later date (*e.g.*, cumulative impacts, mitigation, data gaps and uncertainties).

Importantly, a full and comprehensive assessment of both (1) alternatives to avoid impacts to the 404(c) area altogether, and (2) impacts to the 404(c) area, need not slow down the Corps' efforts to provide hurricane protection for New Orleans. To the contrary, the Corps could proceed with planning for the vast majority of this project while these evaluations are being conducted.

2. An Alternative that Would Completely Avoid Impacts to the Bayou aux Carpes 404(c) Site Has Been Summarily and Inappropriately Dismissed

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As noted above, while we appreciate the efforts of EPA and the Corps to reduce the proposed impacts to the Bayou aux Carpes 404(c) area, we believe that the Corps has the ability to completely avoid impacts to this ecologically sensitive and significant area, and that it should be required to do so.

The IER describes an alternative that "would eliminate all discharges of fill material and eliminate all impacts to the Bayou aux Carpes CWA Section 404(c) area." IER #12 at 49. However, this alternative was summarily dismissed by the Corps based on unsubstantiated "constructability and navigation concerns" and "engineering and construction challenges." In total, the IER devotes only 2 short paragraphs to the discussion of this alternative.[4]

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area that is not presently owned by the applicant may be a practicable alternative if it "could be reasonably obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity." 40 C.F.R. § 230.10(a)(2).

[3] IER #12 addresses the GIWW, Harvey, and Algiers Levees and Floodwalls Jefferson, Orleans, and Plaquemines Parishes, Louisiana.

[4] The full text of this discussion from page 49 of the IER is as follows:
"2.5.3.4 Alternative G – GIWW C

This limited discussion is not supported by any evidence in the IER, and cannot be supported by any reasonable assessment of the facts on the ground. For example, the IER summarily concludes that the only way to avoid the 404(c) area would be to "construct the eastern innovative floodwall completely within the GIWW" which the Corps claims would adversely affect navigation. IER at 49. Both assertions are incorrect and contradicted by other provisions within the IER.

The GIWW has an authorized width of just 125 feet, but the waterway along the eastern portion of the 404(c) area where the floodwall would be built is between 500 and 600 feet wide (with much of this extra width resulting from erosion caused by barge traffic). As a result, the GIWW occupies only a minor portion of the waterway adjacent to the eastern portion of the 404(c) area. Thus, the floodwall would not have to be constructed "completely within the GIWW" to avoid the 404(c) area. Instead, the 100 foot wide floodwall could be constructed in an area that is both outside of the 404(c) area *and* outside of the GIWW.

The Corps' claims that constructing the floodwall outside of the 404(c) area would adversely affect navigation is not supportable as a matter of law, and is contradicted by other significant elements of the Corps' recommended plan.

First, as a matter of law, the Corps may only maintain the GIWW as a 125 foot wide by 12 foot deep navigation channel. Because the area just offshore of the eastern edge of the 404(c) area is *not* part of the federally authorized GIWW navigation channel, construction of the floodwall in that area could not reduce the width of the authorized navigation channel to less than 125 feet. As a result, construction of a floodwall just offshore of the 404(c) area could not adversely effect navigation within the authorized GIWW.

Moreover, we have advised that the spoil bank that now forms the edge of the Bayou aux Carpes area – and upon which the Corps wants to construct the floodwall – was, at the time of the

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Bayou aux Carpes CWA Section 404c area alternatives that would avoid impacts to that area were considered. Alternative G is similar to WCC but would construct the eastern innovative floodwall completely within the GIWW, avoiding all discharges of dredge and/or fill material in the Bayou aux Carpes CWA Section 404(c) area. This alternative was eliminated from further consideration due to constructability and navigation concerns. The construction a floodwall within the heavily used navigation channel that would eliminate all discharges of fill material and eliminate all impacts to the Bayou aux Carpes CWA Section 404(c) area wetland would create engineering and construction challenges producing significant increases in construction time and cost necessary to maintain the same structure reliability achieved by placement of the wall on the bank.

The channel geometry in this area, in particular the very tight curves and narrow channel in the Harvey Canal directly adjacent to this portion of the Bayou aux Carpes CWA Section 404(c) area present challenges that would require impractical actions to achieve a structure that would be able to be completed by June 2011. This action would require the relocation of the navigation channel as well as the wall and berms and or structures required to protect the wall from barge impacts. A small channel behind the wall to maintain hydraulic flows to the Bayou aux Carpes CWA Section 404(c) area would also have to be constructed under this alternative. The greatly increased construction cost and durations as well as the increased risk to the walls make moving the walls into the channel impractical."

original 404(c) designation, set back from the water's edge. This area is now at the water's edge only because approximately 100 feet or more of land along portions of the eastern side of the Bayou aux Carpes area has eroded since the original designation, most likely due to navigation on the GIWW. If this information is correct (and it could readily be ascertained through comparisons of maps), it would mean that construction of the floodwall just offshore of the current boundaries of the 404(c) area would likely be in an area that was formerly wetlands within the boundaries of the original 404(c) area. As a result, construction in this area could not affect either the authorized GIWW or navigation within the GIWW. Moreover, the shallow nature of the waterway at the area just offshore of the eastern edge of the 404(c) site would seem to make this area entirely unsuitable for commercial navigation.

Second, the recommended plan includes construction of foreshore protection in the waterway along another stretch of the eastern edge of the 404(c) area:

> "In the GIWW adjacent to the Bayou aux Carpes CWA Section 404(c) area, 2,000 linear feet (LF) of foreshore dike protection using 650 lb stone would be constructed to prevent impacts (i.e., scouring, bank erosion, etc.) from occurring within the 404c area due to the discharge from the 20,000 cfs pump station (figure 4a, 4c, and 4d; diagram 2). This foreshore dike protection would be constructed within the GIWW adjacent to but not within the Bayou aux Carpes CWA Section 404(c) area. Foreshore protection would not be expected to alter existing hydrologic conditions within the Bayou aux Carpes CWA Section 404(c) area." IER at 28; see also IER at 29, diagram 2.

Despite the fact that at least a portion of this foreshore protection would be constructed in an area of the waterway that appears to be at least as narrow as the portion where a floodwall outside of the 404(c) area would need to be constructed, the IER raises no concerns whatsoever regarding adverse effects on navigation from this foreshore protection. *See* IER at 28; IER at 29, diagram 2. If the foreshore protection would not adversely affect navigation, moving the floodwall to just offshore of the 404(c) area also should not cause any navigation impacts.

Third, the recommended plan includes a closure complex with channel gates through which barges will pass. Those gates will have a much smaller area of passage for barges than would be created by construction of the floodwall just offshore of the 404(c) area *and* outside of the GIWW. For example, the Main Channel Gate will have either an opening or footprint of 150 ft to 300 ft, while the Bypass Channel Gate will have either an opening or footprint of 75 ft to 150 ft. *See* IER at 25, Table 1; IER 153 ("This complex would include a 150-ft to 300-ft main channel gate, a 75-ft to 150-ft bypass channel closure gate."). These gates would be part of the Closure Complex Structure located at – and connected to – the southern end of the proposed floodwall. Presumably, the Corps has designed those gates with sufficient clearance to allow safe navigation. As a result, safe navigation clearly does not require the full 500 to 600 feet of clearance, including areas outside the authorized channel, that currently exists along the portion of the 404(c) area where the floodwall would be built.

EPA should require the Corps to prepare a full and comprehensive evaluation of alternative alignments that would completely avoid impacts to the Bayou aux Carpes site before EPA evaluates – or makes any type of decision regarding – the requested modification to the 404(c) determination. EPA should deny the requested modification if an alternative alignment would avoid impacts altogether (and of course EPA should deny the requested modification if the impacts would violate the 404(c) criteria).

3. The Impacts to Wetlands in the 404(c) Area Have Not Been Meaningfully Evaluated

It is beyond dispute that the Bayou aux Carpes 404(c) area consists of high value, nationally significant wetlands. As noted in the IER, the area:

> "is a highly productive and diverse wetland habitat that is of significant value to the ecosystem for many species of fish and wildlife," and the "wetlands and open water bodies of the 404c area provide nursery, feeding and spawning habitat for numerous recreationally and commercially important freshwater and estuarine fish and shellfish species." IER at 70.
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> * * *
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> "The wetlands serve as valuable feeding, resting, nesting, hunting, and/or escape habitat for numerous species of game and non-game mammals, commercially important furbearers, songbirds, raptors, migratory and resident waterfowl, wading birds, and woodpeckers, as well as many species of amphibians and reptiles, including the American alligator (*Alligator mississippiensis*). Some important wildlife inhabiting the area are the gray squirrel (*Sciurus carolinensis*), pileated woodpecker (*Dryocopus pileatus*), mink (*Mustela vison*), wood duck (*Aix sponsa*), and great egret *(Ardea alba)*. These wetlands also serve as groundwater recharge areas, storage areas for storm and flood water, and natural water filtration areas. These wetlands store waters during a rain or tropical storm event and release the water slowly after absorbing pollutants and excess nutrients." IER at 71

More detail on the ecological value of the Bayou aux Carpes 404(c) area can be found in the October 16, 1985 Final 404(c) Determination. (http://www.epa.gov/owow/wetlands/pdf/BayouAuxCarpesFD.pdf last visited February 17, 2009).

Despite the vital importance of the Bayou aux Carpes wetlands, the IER fails to fully evaluate the direct impacts, and fails completely to provide any specific information on the indirect and cumulative impacts to the 404(c) area. The absence of a robust wetlands impacts analysis means that EPA has no basis for making a determination regarding the requested modification.

The only specific information in the IER on the impacts to the 404(c) area is that the proposed action would directly impact "approximately 9.6 acres of cypress-tupelo swamp and BLH in the

Bayou aux Carpes CWA Section 404(c) area" and those impacts would be permanent. IER at 71. However, evidence within the IER suggests that this could understate the direct impacts. For example, while in some places the IER indicates that the total construction corridor is 4,200 feet long by 100 feet wide – which would yield the 9.6 acres of direct and permanent impacts – in other places the IER states that the floodwall footprint could take up that entire area. The IER states at page 65 that the "proposed action consists of constructing an innovative T-wall *no longer than* 4,200 ft and *no wider than* 100 ft along the eastern boundary of the Bayou aux Carpes CWA Section 404(c) area." IER at 65 (emphasis added). 2

If the floodwall footprint covers the full 9.6 acres, the direct impacts from construction must be larger. Moreover, even if the 9.6 acres covers the entire construction corridor, it is difficult to imagine that construction would not cause additional impacts outside of that limited construction corridor, even with the most rigorous adherence to best management practices during construction. The IER does not explain how it will avoid direct impacts outside of the 9.6 acre area, other than to say that it will construct the floodwall "via water based equipment." IER at 30. The absence of any discussion of the steps that will be taken to avoid additional direct impacts adds to the extensive unreliability of the impacts analyses.

Critically, the IER does not identify any specific secondary or cumulative impacts from the proposed action. Instead, the IER provides only the most generalized statement about the potential for such impacts: 3

> "[O]verall indirect and cumulative impacts due to additional wetland losses and levee construction may have a lasting and delayed impact on wetland habitat due to altered hydrological regimes leading to habitat alterations, changes in water salinity and nutrient load, and increased rates of subsidence. These factors may contribute to long-term wetland loss within the region and subsequent negative trickle-down effects on fish and wildlife communities dependent upon nearby wetland habitat. Cumulative wetland impacts would be expected due to implementation of the proposed action in concert with additional WBV projects. Construction of the proposed action would contribute to the cumulative losses of cypress-tupelo swamp and BLH within the HSDRRS. Cumulative wetland impacts would be mitigated." IER at 64
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> "In general, the overall indirect and cumulative impacts due to additional wetland losses and levee construction for each alternative may have a lasting and delayed impact on wetland habitat due to altered hydrological regimes leading to habitat alterations, changes in water salinity and increased rates of subsidence. These factors may contribute to long-term wetland loss within the region and subsequent negative trickle-down effects on fish and wildlife communities dependent upon wetland habitat." IER at 68.

Indirect impacts can be significant. For example, the seminal textbook on wetlands makes it clear that even small alterations in wetlands hydrology can produce significant and ecosystem-

wide changes: "*When hydrologic conditions in wetlands change even slightly, the biota may respond with massive changes in species composition and richness and in ecosystem productivity.*"[5]

Indeed, "[h]ydrology is probably the single most important determinant of the establishment and maintenance of specific types of wetlands and wetland processes," and even "small changes in hydrology can result in significant biotic changes."[6] This is because:

> Hydrology affects the species composition and richness, primary productivity, organic accumulation, and nutrient cycling in wetlands. . . . Water depth flow patterns, and duration and frequency of flooding, which are the result of all the hydrologic inputs and outputs, influence the biochemistry of the soils and are major factors in the ultimate selection of the biota of wetlands. . . . Hydrologic conditions can directly modify or change chemical and physical properties such as nutrient availability, degree of substrate anoxia, soil salinity, sediment properties, and pH.[7]

The indirect impacts, including hydrologic changes, must be fully evaluated before EPA makes a determination on the requested modification. For example, it is self-evident that construction of a floodwall along the eastern side of the 404(c) area will affect hydrology. The floodwall will significantly reduce overbank flooding along almost 0.8 miles of the eastern edge of the 404(c) area. The proposed floodwall would also significantly reduce the direct hydrologic connection in that same area, through both the impervious and pervious sheet piling that will be used to construct the base of the floodwall. *See* IER at 27, Diagram 1. Indeed, reducing overbank flooding is *the purpose* of the above-ground portion of the floodwall, while minimizing underseepage (*i.e.*, the hydrological connection to the waterway) is *a primary purpose* of the underground sheet piling.

The direct and indirect impacts from relocating the Enterprise pipeline are also not evaluated in the IER. The IER states only that directional drilling will be used to drill under the 404(c) area to avoid impacts: "Adverse impacts to 404c area wildlife would be avoided by relocating the Enterprise Pipeline via directional drilling for 4,000 ft past the current ROW inside the 404c to a point west of the V-line levee. Using this method to relocate the pipeline *minimizes surface impacts to wetlands habitats and fisheries and wildlife species* because the pipeline would be drilled deep under the ground." IER at 86 (emphasis added). No other details are provided, not even the depth at which the directional drilling will take place. The IER does not discuss the direct impacts that cannot be avoided through directional drilling, and does not discuss the indirect impacts that would seem inevitable from drilling under the surface of the 404(c) area. *See, e.g.*, IER at 27. H

The IER also fails to provide any analysis to support its summary conclusion that "Foreshore protection would not be expected to alter existing hydrologic conditions within the Bayou aux 5

[5] William J. Mitsch and James G. Gosselink, *Wetlands* (2nd ed.) (1993) at 68 (emphasis added).
[6] *Id.* at 68.
[7] *Id.* at 67-68.

Carpes CWA Section 404(c) area." *See* IER at 28. If this unsupported assumption is incorrect, the foreshore protection would affect the hydrology along an additional 0.38 miles of the 404(c) area. *See* IER at 25, Table 1 (foreshore protection will be 2,000 feet long).

As noted above, the IER includes only the most general statement on the potential for cumulative impacts from the recommended alternative, and it fails completely to address the cumulative impacts to the 404(c) area. Instead, the IER states that cumulative impacts will be discussed in a document that will be known as the Comprehensive Environmental Document or CED, which will be completed sometime in the future. IER at 14. According to the Corps, the CED will, among other things, document "cumulative impacts on a system-wide basis" and provide "updated information for any IER that had incomplete or unavailable data at the time it was posted for public review." IER at 16 and 14. 6

Cumulative impacts, particularly within the 404(c) area, must be comprehensively evaluated before EPA takes any action on the Corps' modification request. For example, as noted above, we have been advised that approximately 100 feet or more of the land along portions of the eastern side of the Bayou aux Carpes area have eroded due to navigation on the GIWW since the site was originally designated under 404(c). The spoil bank that now forms the edge of the Bayou aux Carpes area – and upon which the Corps wants to construct the floodwall – was originally set back from the water's edge. Other changes to the 404(c) area almost certainly have occurred since the original designation in 1985, and these must be evaluated and considered before EPA makes a decision on the requested modification.

Importantly, the IER also fails to discuss any of the storm damage reduction benefits that would be lost due to the loss of wetlands that would occur if the proposed floodwall is constructed within the Bayou aux Carpes 404(c) area.

A full and comprehensive understanding of the direct, indirect, and cumulative wetland impacts is essential for making a reasoned decision on the Corps' request to modify the Bayou aux Carpes 404(c) determination. EPA should not act in the absence of such information.

4. The Impacts to Fish and Wildlife Have Not Been Analyzed 7

Clean Water Act § 404(c) allows EPA to prohibit disposals that will have an "unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." A comprehensive evaluation of the impacts to fishery areas and wildlife must be carried out before EPA can make a decision on the requested modification.

However, neither the IER nor the Corps' request for modification provide any meaningful evaluation of these types of impacts. The IER contains only the most vague statements regarding the impacts of its proposed activities on fish and wildlife. According to the IER, construction of the floodwall on the eastern edge of the Bayou aux Carpes CWA 404(c) area would:

> "directly impact approximately 9.6 acres of potential estuary habitat within the EPA designated Bayou aux Carpes CWA Section 404(c) area. This estuary habitat is considered an important fisheries resource within the greater Bayou Barataria Estuary and the loss of this habitat could impact fisheries populations dependent on this area. IER at 80-81.
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> * * *
>
> "directly impact the wildlife. The construction of the wall would directly remove valuable habitat. Wildlife species would likely relocate into adjacent similar habitat. There would also be temporary indirect impacts to wildlife including noise and vibration that could potentially force species farther from the construction area; however, habitat adjacent to the wall would likely stabilize following construction completion. Construction would be expected to take 2 years. IER at 86.

The Fish and Wildlife Coordination Act (FWCA) report for the IER is similarly vague, particularly with respect to the likely impacts to fish and wildlife within the 404(c) area. While the vagueness of the FWCA report may result from the vagueness of the information provided by the Corps, poor planning by the Corps is not an excuse for an inadequate assessment of impacts by either the U.S. Fish and Wildlife Service, or by EPA in its analysis of the requested modification to the 404(c) designation.

A full and comprehensive understanding of the direct, indirect, and cumulative impacts of the project on fishery areas and wildlife is essential for making a reasoned decision on the Corps' request to modify the Bayou aux Carpes 404(c) determination. EPA should not act in the absence of such information.

5. The Potential for Mitigation or Augmentation Features Does Not Offset Impacts to the 404(c) Area

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While the IER states that the project's impacts will be mitigated, the mitigation features have not been studied, designed, planned, or committed to. IER at 157. Because the details of the proposed mitigation are completely unknown (and, at this time, are unknowable), EPA cannot evaluate the potential for mitigation to offset the impacts to the 404(c) area. Indeed, until the full range of impacts to the 404(c) area are identified, EPA cannot even determine how much, or what kind of, mitigation would be needed. As a result, the potential for mitigation cannot be used to offset the impacts of the proposed project to the 404(c) area.

The IER also attempts to partially justify the proposed impacts to the Bayou aux Carpes 404(c) area through holding out the potential for "augmentation features" for the 404(c) site. IER at 160-63. However, like the mitigation, the augmentation features have not been studied, designed, planned, or committed to. Until full planning for the potential augmentation features has been carried out, EPA cannot determine whether any augmentation features will be implemented, and if so, what the effects of those augmentation features might be. As a result,

the potential for augmentation features cannot be used to offset the impacts of the proposed project to the 404(c) area.

Moreover, there is a very real potential for the proposed augmentation to actually cause harm to the 404(c) area. For example, the largest augmentation feature being considered would involve gapping the canal to the north of the 404(c) area to allow storm runoff to flow through the wetland. Since this water would be urban runoff, which could carry high levels of nitrogen and phosphorus, metals, petroleum products, and other toxins, great care would need to be taken to ensure such water would not cause damage (instead of benefit) to the 404(c) wetlands over both the short and long term. The potential value of such augmentation features is further undermined by the lack of a plan to monitor the proposed augmentation, and the failure to evaluate the operations and maintenance that would be required to implement such augmentation features. The potential value of the augmentation features is further undermined by the very limited baseline study that would be carried out. The IER states that a one year baseline study will be carried out, but a study of at least two years and probably longer would be needed to provide a reliable picture of the current conditions (for example, a single year study in a particularly wet or dry year could produce unreliable results).

6. Conclusion

For the reasons set forth above, the record cannot support a 404(c) modification, and the requested modification should be denied. At a minimum, EPA should delay its decision until the necessary evaluations have been carried out. To this end, EPA should require the Corps to (1) clearly demonstrate that there are no possible alternative alignments that would avoid impacts to the 404(c) site altogether, and (2) provide a full and comprehensive evaluation of the full range of impacts from the proposed modification before EPA makes a decision regarding the requested modification. Without this information, EPA cannot reasonably determine whether the requested modification would have an "unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas."

Sincerely,

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FAX TRANSMISSION

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Number of Pages, Including Fax Cover Sheet: 3

To: BARBARA KEELER
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From: DAVID MILLER, DIRECTOR OF IMPLEMENTATION
OFFICE OF COASTAL PROTECTION + RESTORATION

COMMENTS:

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CPRA
Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

February 23, 2009

Ms. Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Ms. Keeler:

I am responding to the Environmental Protection Agency's (EPA) January 14, 2009, Federal Register Notice entitled: "Request for Amendment of Designation Prohibiting Discharges of Dredged or Fill Material to the Bayou Aux Carpes Clean Water Act Section 404 (c) Site, Louisiana." The requested amendment is needed for implementation of the work described in Individual Environmental Report (IER) No. 12 for the West Bank and Vicinity Hurricane Protection Project, GIWW, Harvey and Algiers Levees and Floodwalls, prepared by the U.S. Army Corps of Engineers (USACE).

As the project's Non-Federal Sponsor, the State of Louisiana is opposed to moving the current T-Wall alignment into the GIWW channel to avoid the Bayou Aux Carpes 404 (c) Site. Such an alignment would severely impact the project completion schedule and cost; the reliability of the hurricane protection system; and the State's operation and maintenance, repair, replacement and rehabilitation (OMRR&R) responsibilities over the life of the project. The encroachment of the T-Wall/Access Road into the GIWW channel would pose an increased risk to the hurricane protection system from navigation traffic. The plan presented in IER No. 12 represents an allowable risk based upon the 100-foot Right-of-Way limits negotiated by the USACE and the EPA, and represents a least cost, least risk, and least impact option over the other alternatives outlined in that document.

For the reasons outlined above, the State of Louisiana strongly supports the requested amendment of the Bayou Aux Carpes Section 404(c) Site to allow that hurricane protection project feature to go forward as described in IER No. 12. Furthermore, we oppose moving the current T-Wall alignment into the GIWW channel to avoid impacts to the Bayou Aux Carpes 404 (c) Site.

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If you have any questions regarding this matter, please contact my office at (225)-342-4683.

Sincerely,

David Miller, P.E.
Director of Implementation,
Office of Coastal Protection & Restoration

DM:df:ap

cc: David Frugé, Chief, Planning and Project Management Division
Chris Williams, Administrator, Project Management Branch
James McMenis. Project Manager, Project Management Branch
Gerald Sphorer, Executive Director, West Jefferson Levee District
Julie Vignes, USACE, New Orleans District
Kevin Wagner, USACE, New Orleans District
Tim Connell, USACE, New Orleans District
Gib Owen, USACE, New Orleans District

Corps of Engineers proposed West Closure Complex
Paul Atkinson to: Barbara Keeler 02/24/2009 08:12 PM

Dear Ms. Keeler,

I write to you at the EPA Region 6 office to comment on the Corps' plans to construct the West Closure Complex near the Bayou aux Carpes Section 404c area.

I am writing as both a 43-year homeowner of the New Orleans West Bank and Editor of the Harvey Canal Industrial Association Communiqué newsletter. It is my understanding that the Corps has made great efforts to work with the EPA and other agencies to avoid damage to the highly-sensitive Bayou aux Carpes 404c area.

The West Closure Complex project holds great promise to protect the residents and businesses of the West Bank from future hurricanes. Additionally, I am told that the funding for this $500 million plus project is approved and ready to go. I ask you and the EPA to approve the Corps' request to modify the 1985 Bayou aux Carpes Clean Water Act so this major work can begin immediately.

Sincerely,

Paul Atkinson,
3018 Hudson Place,
New Orleans, La., 70131,
patkinson19@cox.net

Part II, Appendix D

Transcript from Public Hearing

ORIGINAL TRANSCRIPT

PUBLIC HEARING HELD IN THE MATTER OF GIWW WEST CLOSURE COMPLEX/BAYOU AUX CARPES 404 REQUEST FOR MODIFICATION TAKEN AT THE US ARMY CORPS OF ENGINEERS DISTRICT OFFICE, 7400 LEAKE AVENUE, NEW ORLEANS, LOUISIANA 70118 ON THE 11TH DAY OF FEBRUARY 2009 COMMENCING AT 7:00 P.M.

REPORTED BY:
RACHEL TORRES-REGIS, CCR, RPR
CERTIFIED COURT REPORTER

MR. BARRA:

Okay. Let's go on record, please. Ladies and gentlemen, it is approximately 7 p.m. on February 11, 2009, and this joint public hearing concerning the Corps of Engineers Individual Environment Report No. 12, an environmental document that details potential impacts of actions proposed as part of the Gulf Intracoastal Waterway West Closure Complex Project and concerning the Corps request that EPA modify the Bayou aux Carpes Clean Water Act Section 404 (c) designation is now in session. Good evening and thank you for coming to this public hearing.

My name is Mike Barra. I am a Regional Judicial Officer with EPA Region 6 located in Dallas, Texas. I am the designated hearing officer for this public hearing. My responsibility

1 includes fully developing the
2 public hearing record by taking
3 testimony in admitting data and
4 information into the hearing
5 record as evidence. EPA will
6 consider the public hearing
7 record in making its final
8 decision concerning the Corps of
9 Engineers request to modify the
10 Bayou aux Carpes Clean Water Act
11 Section 404 (c) designation. The
12 Corps of Engineers will consider
13 the public hearing record in the
14 process of making a final
15 decision on the actions proposed
16 as part of the Gulf Intracoastal
17 Waterway West Closure Complex
18 Project described as individual
19 Environmental Report No. 12.
20 Please note that I do not
21 participate in making EPA's final
22 decision concerning the request
23 to modify the 404 (c) designation
24 nor in the Corps final decision
25 on the proposed action described

1 in Individual Environmental
2 Report No. 12.
3 In addition to me there are
4 other EPA representatives present
5 this evening, including Brian
6 Frazer, Chief of the Wetlands and
7 Aquatic Resources Regulatory
8 Branch in the EPA headquarters
9 Office of Water, and two persons
10 on his staff, Ann Campbell and
11 Clay Miller. From EPA Region 6
12 in Dallas, Jane Watson, Chief of
13 the Ecosystems Protection Branch
14 in the Water Quality Division,
15 and Barbara Keeler, Coastal and
16 Wetlands Planning Coordinator.
17 There are a number of
18 representatives of Corps of
19 Engineers present this evening
20 including Lieutenant Colonel Mark
21 Jernigan, Deputy District
22 Commander, New Orleans District
23 U.S. Army Corps of Engineers.
24 And Gib Owen, the Chief of the
25 Ecological Planning and

1 Restoration Section in the New
2 Orleans District of the Corps of
3 Engineers.
4 EPA prepared a public -- a
5 public notice of tonight's public
6 hearing in the Federal Register
7 on January 14, 2009. The Corps of
8 Engineers published notice of
9 this public hearing in the
10 Plaquemines Gazette on January 20
11 and 27. The Times Picayune on
12 January 20, 28, February 7 and
13 11, and in The Gambit, February
14 8. The Corps also notified the
15 public of tonight's public
16 hearing with notices on its
17 website, postcard mailings to
18 members of the public who have
19 requested to be on the Corps
20 mailing list for this action, and
21 by running flash ads during the
22 period February 2 through
23 February 11 on the nola.com
24 website. The public notices
25 informed the members of the

1 public of their opportunity to
2 obtain information and copies of
3 Individual Environmental Report
4 No. 12 and the request that EPA
5 modify the Bayou aux Carpes Clean
6 Water Act Section 404 (c)
7 designation to submit comments to
8 attend and participate in the
9 public hearing being held this
10 evening. I have entered the
11 public note -- copies of the
12 public notices for tonight's
13 public hearing into the hearing
14 record and have asked the court
15 reporter to number them as
16 Exhibits 1 and 2.
17 In addition, several people
18 have submitted written comments
19 prior to this public hearing. I
20 am entering those comments into
21 the record and I have asked the
22 court reporter to number them as
23 Exhibits 3 through 6.
24 Now I would like to outline
25 the procedures for this public

1 hearing. The procedures for this
2 public hearing are rather simple
3 and informal; however, this
4 hearing must be conducted in an
5 orderly manner that will allow
6 EPA and the Corps to obtain and
7 record all relevant and
8 appropriate information related
9 to the request to modify the
10 Bayou aux Carpes Clean Water Act
11 Section 404 (c) designation and
12 Individual Environmental Report
13 No. 12. Tonight's public hearing
14 is not an evidentiary hearing or
15 trial. There will be no direct
16 or cross examination of
17 witnesses. As hearing officer, I
18 may ask questions but only for
19 clarification of the hearing
20 record. Otherwise, persons
21 giving testimony will not be
22 requested. This is not a forum
23 for debate or argumentative
24 exchanges but rather one for the
25 gathering of facts, data and

1 information and opinions
2 regarding the request to modify
3 the Bayou aux Carpes Clean Water
4 Act Section 404 (c) Designation
5 and Individual Environmental
6 Report No. 12. EPA will respond
7 to questions and issues
8 concerning the Corps request to
9 modify the Bayou aux Carpes Clean
10 Water Act Section 404 (c)
11 Designation raised in the record
12 of this public hearing and the
13 Corps of Engineers will respond
14 to questions and issues
15 concerning Individual
16 Environmental Report No. 12
17 raised in the record of this
18 public hearing, but those answers
19 will be in writing and prepared
20 after this public hearing and
21 after fully considering the
22 questions and issues raised. EPA
23 and Corps of Engineers personnel
24 will not respond to questions
25 during the public hearing this

1 evening. They may respond to
2 informal questions presented
3 outside of the hearing record at
4 the open house that will be
5 conducted after this hearing
6 concludes. I will call on
7 everyone who desires to provide
8 testimony in the order presented
9 on the forms provided at the
10 registration table. If you have
11 not signed a speaker registration
12 form and wish to testify, please
13 take a minute to obtain and
14 complete a form provided at the
15 registration table. When I call
16 upon you to give your testimony,
17 please state your name, and if
18 you are affiliated with or
19 representing an organization,
20 please identify your
21 organization. I must obtain a
22 clear uninterrupted record of the
23 hearing, so please do not talk
24 while others are giving
25 testimony. We can only have one

1 person talking at a time in order
2 for the court reporter to be able
3 to hear and accurately record the
4 testimony provided.
5 As hearing officer for this
6 public hearing, I may impose time
7 limits on providing testimony if
8 the circumstances warrant. If
9 your plan testimony is rather
10 lengthy, I recommend that you
11 consider summarizing your
12 testimony followed by a request
13 to enter your complete written
14 statement into the hearing
15 record. At the present time
16 eleven people have signed up to
17 speak. In order to give everyone
18 an opportunity to speak in a
19 reasonable time, I'm imposing a
20 time limit of six minutes per
21 speaker until all have had the
22 opportunity to give testimony. I
23 will give you a warning when you
24 have gone five so that you know
25 that it will be time to be

1 wrapping it up. If time permits
2 after all have had their
3 opportunity, I may give persons
4 wishing to add to their testimony
5 additional time. After the
6 public hearing closes this
7 evening, EPA will continue to
8 accept written comments on the
9 request to modify the Bayou aux
10 Carpes Clean Water Act Section
11 404 (c) Designation through
12 February 13, 2009. The Corps of
13 Engineers will continue to accept
14 written comments on Individual
15 Environmental Report No. 12 until
16 12 midnight tonight.
17 I will now take the testimony
18 of persons who have signed up to
19 speak beginning with Mayor Tim
20 Kerner of the town of Lafitte.
21 MR. KERNER:
22 Thank you. Good evening. I
23 want to thank y'all for having
24 me. I was going to ask a few
25 questions but I will just say

1 that watching the presentation it
2 said that, you know, they had a
3 lot of input and you got with the
4 local government and the Levee
5 Board. Well, I am the mayor of
6 the town of Lafitte and nobody
7 got with me or anybody that
8 belongs to my town, and also the
9 -- I'm the President of the Levee
10 Board and nobody ever addressed
11 the Levee Board with any of these
12 issues, so -- and I will tell you
13 what, Lafitte and Barataria is
14 going to be the ones that's
15 devastated from this floodgate.
16 I'm sure that the people from the
17 Corps here has heard about
18 Donaldsonville to the Gulf. That
19 the levee system that is supposed
20 to be going from Lafourche to
21 Belle Chasse. Well, the
22 delegation from Washington signed
23 a letter in support that Lafitte,
24 Barataria and Crown Point would
25 be in that levee system. They

are going to pick that alignment in the next couple of months. Why are we going through a $50 million floodgate that is right north of Lafitte that will flood us out even quicker when the tidal surge is coming up and putting a big pump station to throw more water on us -- sorry. Why is the Corps not sitting back saying, well, if we are going to protect the people of the westbank, why not see if Donaldsonville to the Gulf is -- when it's run and finish the study, if GIWW -- the GIWW alignment is chosen. If that alignment is chosen, we are spending fifty -- I mean, five hundred million dollars for nothing because we are going to have a floodgate south of Lafitte that is going to be sixteen and a half feet high. It will be done for nothing. And I will tell

you, what a slap in the face of the people of Lafitte that is trying to get back in their homes right now that 70 percent of them is gutted in a place that clean up and you wouldn't even know that a hurricane was there, but they trying to get back in their homes, they are doing it themselves. What a slap in the face to say $500,000 for a floodgate right north of you and not discuss giving one dime for even tidal protection. The Corps of Engineers is not coming to Lafitte to the town hall to see the town council or anybody in the public hearing that -- the Lafitte Levee Board, not anybody. Look, the Corps of Engineers has been so good to me with Section 205 in the continuing authority programs, Donaldsonville to the Gulf project, the guys have been great, but what you are doing

here with the five hundred million dollar floodgate without coming to talk to the people of Lafitte, without caring about the people of Lafitte, Barataria and Crown Point is a sin and you ought to be ashamed of yourself. That's all I got to say. Thank you. And I oppose of it.

MR. BARRA:

Thank you for your comments. Donald Vallee.

MR. VALLEE:

I'm Donald Vallee. We own High Point Shooting Grounds, which is directly along Bayou Road, which is going to be affected. After reading the report on the website, 174 pages, I wanted to comment on two things. The little bit -- first off, let me just say -- compliment the Corps on informing all of us, this has been going on for two years and there have been

1 numerous meetings we have had as
2 well as people from the Corps
3 attending and coming out to our
4 property and all of the adjacent
5 property all around and keeping
6 up informed what is going on;
7 however, in reading the report,
8 there really was not enough
9 significance impact addressed in
10 it to reflect how we are going to
11 be addressed. If you look
12 directly behind you on that map,
13 those two squares of property at
14 the end of Bayou Road is what we
15 utilize as our safe fall in
16 shooting areas. We have to have
17 at least a thousand feet of
18 protected area and shot fall to
19 protect the general public from
20 any shot that goes into those
21 areas. All of that is going to
22 get lost as well as the adjoining
23 properties and there's a lot of
24 facilities that we have back up
25 in there. So I just want to make

1 those notes back into the public
2 comment at that point in time.
3 That's all I want to say.
4 MR. BARRA:
5 Thank you for your comments.
6 Matt Rota.
7 MR. ROTA:
8 Hello. My name is Matt Rota.
9 I am with Gulf Restoration
10 Network and I thank you for the
11 opportunity for the comments,
12 thank you for putting this
13 hearing together. I will also be
14 submitting written comments. I
15 have emailed them to Gib Owen and
16 Barbara Keeler already, but I
17 will also be submitting hard
18 copies into the record.
19 There is a few aspects that I
20 would like to talk about today.
21 The first one is just the whole
22 idea that we are having this
23 meeting. This is probably the
24 first time a lot people are
25 learning about this project and

1 our public forum, and for the
2 Corps to have the public comment
3 period to end midnight and this
4 is probably going to go on until
5 about 8 o'clock, giving everybody
6 a full three or so hours to
7 digest and figure out what they
8 want to comment on is just not
9 adequate. We don't think that
10 the Corps comment period has been
11 adequate for that. I mean, the
12 EPA isn't that much longer, it's
13 just 'til Friday, but there is at
14 least some significant time to be
15 able to digest what people are
16 learning today. The second thing
17 that I would like to mention and
18 I think others will be talking
19 about this further is that we
20 don't feel that the full
21 avoidance of the Bayou aux Carpes
22 404 (c) area has been looked at.
23 It is given a little time in
24 IER-12 showing that they are
25 avoiding and I would like to,

first of all, thank the Corps and EPA for modifying the alignment so we aren't bisecting the Bayou aux Carpes like it was originally proposed, but, still, we don't think there's enough discussion and enough analysis to look at moving the floodwall further out into the waterway, the dredged -- the dredged handle should only be 125 feet wide so there is a lot of buffer there that we don't, at least in the IER has not been fully analyzed, and so we are requesting a better analysis see moving the floodwall further out into the water, not interfering with the channel, we would like to see that further looked at. Also, there hasn't been any analysis on secondary or secondary impacts and also cumulative impacts to wetlands was not addressed. It was said that that basically was going to

1 be looked at in another one of
2 the IER's, but in public meetings
3 that we have had with the Corps
4 in the past they developed a
5 spreadsheet that is kind of a
6 rolling cumulative impact
7 analysis, and we feel that that
8 should be included in each one of
9 these IER's to give everybody the
10 best idea that they can, what
11 kind of cumulative impacts we are
12 going to be looking at with the
13 entire one hundred year
14 protection system as a whole.
15 Finally, last thing that I
16 would like to talk about today
17 that I would like to highlight is
18 the fact that non-structural
19 alternatives really are just
20 given lip service in this. It is
21 basically assumed in here in the
22 IER that -- in IER-12 that if we
23 can't raise every single house in
24 the entire area we aren't going
25 to look at non-structural

1 alternatives, raising houses,
2 weather rising houses at all. In
3 WRDA it is not an all or nothing,
4 it says it can be --
5 non-structural alternatives can
6 be looked at in conjunction with
7 structural alternatives such as
8 levees and floodwalls and I am
9 not saying that we don't need
10 levees and floodwalls. I'm a
11 resident of New Orleans as
12 probably everybody here is or the
13 greater metro area and all of us
14 understand the importance of
15 levees within a comprehensive
16 hurricane system, but completely
17 dismissing raising houses or some
18 houses in some areas because we
19 can't -- it would be economically
20 infeasible to raise every single
21 house in the metro area is just
22 flood logic. So in conclusion I
23 would just like to say that we
24 feel that the -- and it's
25 outlined more in my written

1 comments that the IER-12 is not
2 flushed out enough and that they
3 have not -- the Corps has not
4 presented what we feel a full
5 analysis on all of the
6 alternatives, and without that,
7 we don't see how EPA can make a
8 real informed decision without
9 having some of that information
10 basically, like I said, wrote off
11 maybe moving the floodwall out a
12 little bit more into the
13 waterways still not impacting the
14 channel, and we don't feel
15 there's enough evidence to
16 support that, and there might in
17 the end, but we don't want EPA to
18 make a hasty decision because
19 they certainly didn't make a
20 hasty decision when they first
21 did this for the foresee action.
22 Thank you for the opportunity to
23 comment.
24 MR. BARRA:
25 Thank you for commenting.

1 Gabriel Mondino.
2 MR. MONDINO:
3 Good evening. My name is
4 Gabriel Mondino. I suppose that
5 my affiliation would be as a
6 citizen of New Orleans. I have
7 no organization that I'm
8 affiliated with.
9 I guess the relevant question
10 that I have noticed looking at
11 this presentation, reading
12 materials about it is that with
13 the 404 (c) Designation and all
14 of the work that went into what
15 was -- what is labeled the final
16 determination, the question of --
17 at hand really is not so much the
18 entirety of the levee system, and
19 this exactly is why EPA is here
20 tonight, but the impact on this
21 particular area, and so the
22 question that -- the way that I
23 would phrase it is whether it's
24 reasonable for the Army Corps of
25 Engineers to use a 404 (c)

1 Designated area which has already
2 been given extensive EPA
3 authority with oversight in
4 fashioning adequate hurricane
5 protection for the New Orleans
6 area, and I would have to
7 unfortunately say that based on
8 the presentation that we have
9 here tonight I don't think that
10 we can have an adequate answer to
11 that question because I feel that
12 the plan at this point, the IER
13 doesn't really seem like it's
14 half baked. We ought to be
15 cooking, I might give it another
16 20 minutes or so to see if it
17 really hit the point at that
18 point, but I don't feel as though
19 the plan where it is now, there
20 isn't enough information for the
21 public. We do not know what the
22 Environmental Impact of
23 Alternative studies of placing
24 the floodwall away from the 404
25 (c) Designated area back into the

1 shallow waters, what the
2 hydrological effects of that or
3 the engineering challenges in
4 that and we haven't been able to
5 witness that as the public to
6 truly see whether we, as the
7 public, who are the ones who
8 benefit from this 404 (c)
9 Designation are willing to allow
10 some impact on something that is
11 as noted by the EPA a national
12 historic treasure.
13 The only other comment that I
14 would make is that it seems to me
15 that the appropriate action to
16 take at this time is really to
17 present the public with an
18 amended IER as to this project as
19 opposed to filling in these
20 details in some sort of
21 comprehensive environmental
22 statement after the fact. I
23 think that doing -- doing that
24 course of action filling the
25 necessary details of a project

1 really runs in the face of a
2 logic of having these public
3 hearings in the first place of a
4 logic that foster one of our
5 first environmental legislation,
6 NEPA, and the entire logic of the
7 public impact and the public
8 opportunity to engage its civil
9 servants and its agencies in a
10 way that is going to benefit not
11 only the natural environment as
12 is the case here but also protect
13 all of the people like me and
14 everyone else in this room who
15 live in this metro area. That is
16 my only comments.
17 MR. BARRA:
18 Thank you for your comment.
19 Jill Mastrototano.
20 MS. MASTROTOTANO:
21 Good evening. I'm Jill
22 Mastrototano. I am the senior
23 field organizing manager for the
24 Sierra Club based here in New
25 Orleans and I appreciate the

1 opportunity that EPA and the
2 Corps has afforded us all this
3 evening in the community to
4 review and comment on this
5 project. I would echo the
6 request of Matt Rota with the
7 Gulf Restoration Network that the
8 comment period be extended one
9 additional week to allow those in
10 the public that have just learned
11 about this project to put written
12 comments into the record beyond
13 midnight tonight or Friday, that
14 is EPA's deadline.
15 Certainly the Sierra Club
16 supports effective comprehensive
17 and meaningful hurricane
18 protection for the Louisiana
19 community, be it in the form of
20 levees but also non-structural
21 protection, and certainly since
22 the 2005 hurricane season there's
23 been significant scientific
24 attention given to support the
25 importance of protecting our

1 wetlands and maintaining our
2 coastal resources of which these
3 404 (c) designated wetlands are,
4 and we appreciate EPA's concern
5 to uphold the importance of this
6 404 (c) area. We would ask that
7 given the almost 25 years of
8 protection that this area has has
9 enjoyed that that continue in
10 whole. Importantly we recognize
11 the importance of 404 (c) not
12 just given the nice presentation
13 that EPA provided but that our
14 Sierra Club staff and volunteers
15 have worked very hard on
16 protecting 404 (c) area. Of
17 course last year's recent Yazoo
18 Pumps is a very good example of
19 that. We would ask that EPA
20 continue to explore the
21 importance of including or the
22 necessity of including this 404
23 (c) area in Jean Lafitte Historic
24 National Park, we would encourage
25 that. We also recognize that the

1 Corps has made significant
2 strides in modifying the impacts
3 of this project on the ground to
4 404 (c) area, and we applaud them
5 for that. However, we feel that
6 there can be additional distance
7 met, and we request that the
8 Corps explore the nine acres of
9 impacts that continue to exist on
10 paper. One thing that we would
11 want them to consider is, and we
12 don't feel it was fully explored
13 in the IER itself, was to move
14 the T-wall, the innovative
15 T-wall, berm and riprap farther
16 into the channel center, toward
17 the channel center. The channel
18 center currently is 500 feet and
19 was authorized to about 400 feet,
20 and because of the shallowness
21 along the western side of the
22 channel there are opportunities
23 to consider for engineering and
24 structural; however, the IER did
25 not fully explore that, it just

1 basically had a statement in
2 there saying that such a -- such
3 a movement or location of the
4 T-wall would not be appropriate,
5 and so we would ask that that be
6 revisited and the Corps actually
7 provide adequate data to refute
8 or support that proposal.
9 To that end, I would echo the
10 sentiments forthcoming from our
11 Louisiana Delta Chapter that
12 represents three thousand members
13 as well as the New Orleans group.
14 Thank you.
15 MR. BARRA:
16 Thank you for your comments.
17 Harvey Stern.
18 MR. STERN:
19 Good evening. My name is
20 Harvey Stern and I am also the
21 Delta Chapter of the Sierra Club,
22 and I have here a comment of Mr.
23 Haywood Martin, who is chair of
24 the Delta Chapter of the Sierra
25 Club, which do in fact reflect

1 many of the comments that we just
2 heard from Jill, the field
3 coordinator of the Sierra Club.
4 I will just add a few excerpts
5 from this letter that I think
6 will elaborate on her comments.
7 The Sierra Club of the Delta
8 Chapter supports a safe hurricane
9 protection levee for the entire
10 New Orleans area including the
11 westbank of Jefferson Parish. We
12 also support the use of natural
13 systems such as forested to the
14 non-forested wetlands to add to
15 the aggressive barriers to the
16 storm surges. And we also, as
17 Jill mentioned, we feel that the
18 proposed alternative that would
19 take 9.6 acres of the BAC as
20 opposed to the 600 needs to be
21 reevaluated. While this is a
22 large decrease of the taking of
23 the wetlands of national
24 significance, we suggest that the
25 Corps can do better. Additional

1 structural changes to the eastern
2 levee and closure compacts would
3 avoid any wetland loss to the
4 BAC. The Corps alternative 2
5 should be modified to avoid any
6 direct or indirect impacts to the
7 Section 404 (c) wetlands. It
8 appears that there is adequate
9 space to move the structure
10 further away into the waterway so
11 as to avoid the 404(c) wetlands
12 as we heard expressed earlier by
13 several folks. And we are also
14 concerned that any additional
15 information gathered over the
16 one-year baseline study will come
17 after the project has been
18 approved. This includes most of
19 the impacts to the BAC area.
20 Also the engineering design
21 report for the gates and
22 floodwalls has not been
23 completed. The DIER states that
24 a Draft Comprehensive
25 Environmental Document will

1 contain updated information for
2 any IER that had incomplete or
3 unavailable data at the time it
4 was posted for public review. It
5 appears that potentially critical
6 information will not be available
7 at the time the IER is approved
8 and construction commences.
9 Because there are still important
10 data omitted from the draft
11 document, we request that a
12 revised/amended IER be prepared
13 and circulated to the public and
14 resource agencies for review. We
15 are formally requesting that
16 IER-12 be amended to include
17 omitted information and full
18 responses to the public/agency
19 comments on the DIER-12.
20 In conclusion, we oppose
21 Alternative 2, the preferred
22 alignment as presented in the
23 DIER-12. We request the Corps to
24 do an amended IER containing new
25 designs and supportive data, and

1 we strongly recommend that EPA
2 deny the request by the Corps to
3 modify its final determination on
4 the Bayou aux Carpes CWA 404 (c).
5 Furthermore we request that the
6 comment period be extended, as we
7 heard from Jill, so that all
8 interested parties have adequate
9 time to prepare substantial
10 comments. Those are the comments
11 from the Chair of the Sierra
12 Club. I have a couple of
13 personal observations about why
14 this project is being done in the
15 first place, and as we heard
16 referred to at least once in this
17 presentation, that the intent of
18 the project is to provide, quote,
19 one hundred year level of
20 protection to the residents of
21 the westbank, and the, quote, one
22 hundred year level of protection
23 and five hundred year level of
24 protection has been the mantra of
25 the Corps, certainly before

1 Katrina as to how to explain to
2 the public the kind of protection
3 against a level of risk of
4 flooding from significant rain
5 events. I was at at least one
6 public Corps meeting at which a
7 Corps official himself told me
8 after I raised the issue about
9 the credibility of the one
10 hundred year concept that the
11 idea of the one hundred year
12 storm or even talking about a one
13 percent chance in any given year
14 is misleading, it's misguided,
15 it's obsolete and it needs to be
16 reassessed, and it's my
17 understanding, I stand to be
18 corrected, that the Corps intends
19 to continue to use the, quote,
20 one hundred year level of concept
21 of the one hundred year level of
22 flood protection in this proposed
23 project to explain to the public
24 why particular projects are
25 needed. I would beg the Corps to

1 get on the fast track and find a
2 different way to assess risk.
3 The one hundred year level of
4 flood level of protection concept
5 just does not work in many
6 people's mind. We are talking
7 about reducing flood risk. I
8 think the credibility of the
9 Corps is at risk as long as it
10 continues to talk about the one
11 hundred year level of flood risk
12 or the five hundred year level.
13 There has got to be a better way
14 to explain risk to the public
15 that is credible. People's lives
16 are at risk. People are making
17 life decisions on where to live
18 and whether to move back based on
19 the Corps decisions on this
20 project.
21 MR. BARRA:
22 One more minute.
23 MR. STERN:
24 That's my comments. Thank
25 you very much.

1 MR. BARRA:
2 Okay. Thank you. Ray
3 Champagne.
4 MR. CHAMPAGNE:
5 Yes. My name is Ray
6 Champagne. Resident of Lafitte,
7 member of the Sixth Ward
8 Association for Progress. And
9 realizing that this project is
10 funded, I want to congratulate
11 the people that was involved, but
12 saying that, Crown Point,
13 Barataria and Lafitte is going to
14 be left out of this, and since we
15 have been flooding for the last
16 three storms, we were just
17 wondering if the Corps would take
18 into consideration this proposal
19 that -- it's lower Jefferson
20 Parish alternative. It's part of
21 what the mayor was talking about,
22 the Donaldsonville feasibility
23 study. Well, Shaw and other
24 people put this together, it's
25 pretty impressing. I would like

1 to leave it here for the record,
2 and the people in Lafitte and
3 Barataria they just tired doing
4 with these graves every time high
5 water come in. And they feel --
6 like the mayor was saying, they
7 feel a little left out because no
8 money has been spent south of
9 this project and everything south
10 of this project, especially Crown
11 Point where the water is going to
12 get up against this structure,
13 and it's pretty impressing. It's
14 a real nice -- I mean, who
15 wouldn't like this. You would
16 have to be crazy not to like it.
17 It's very impressive, cost a lot
18 of money, but anything south of
19 that the water is going to back
20 up against it and the potential
21 for flooding in that area where
22 the structure is is going to be
23 greater, maybe not just in a
24 quarter of a mile, we are talking
25 about three or four miles back,

that is Crown Point, and beyond that is Lafitte, where the mayor is, and beyond that is where I live. I flood regardless, but I have been lucky. I'm above the ground and a lot of the other people is putting their houses up. But, like I said, I would like to introduce this if it's possible and we hope that the Corps would consider it, and I thank you for the time.

MR. BARRA:

Thank you for your comments. Dr. Barry Kohl.

DR. KOHL:

My name is Barry Kohl. I'm here representing the Louisiana Audubon Council and we thank the Corps and EPA for holding this hearing tonight, especially on the EPA side protecting and trying to continue the protection of the 404 (c) area. The John Lafitte National Historical Park

1 and Preserve and the Bayou aux
2 Carpes wetlands will provide
3 non-structural protection and
4 reduce the hurricane tidal surges
5 before they reach the westbank
6 levee, and they have been
7 documented -- the forested
8 wetlands and non-forested
9 wetlands have been documented as
10 reducing the height of tidal
11 surges during hurricanes Rita,
12 Gustav and Ike, so the
13 non-structural protection that
14 the 404 (c) gives, the westbank
15 levee and Lafitte National Park,
16 which protects almost the entire
17 portion of the westbank of
18 Jefferson Parish from tidal
19 storms is very important. We
20 thank the Corps for reducing the
21 impacts to the 404 (c). Wetlands
22 from the 404 (c) wetlands from
23 its original plans which would
24 take -- which would have taken
25 almost 600 acres of the 404 (c)

1 area. One way to avoid impacts,
2 further impacts is to modify
3 Alternative A by moving the flood
4 wall one hundred feet into the
5 waterway along the eastern
6 perimeter of the 404 (c) area.
7 We don't suggest that the wall be
8 moved into the navigation channel
9 as was alluded in the IER, but to
10 the edge of the waterway which is
11 600 feet wide. The channel is --
12 barge channel is only 125 feet in
13 width authorized by congress. We
14 don't need a wider channel or
15 congress would have authorized
16 it, a larger channel. We request
17 the Corps staff to consider in
18 its engineering analysis and
19 include in the amended IER the
20 engineering analysis since it has
21 environmental significance. We
22 have been interested in all of
23 the data gaps listed in the IER
24 of which we find many. In fact,
25 the section on data gaps and

1 uncertainties list the data note
2 included in the draft IER as,
3 one, source of levee material
4 that has not been identified.
5 Environmental surveys are not
6 complete. Cumulative impact data
7 are not complete. Impacts on
8 transportation remain unknown,
9 and one of the more important
10 omissions is the engineering
11 analysis that's based on a
12 concept level design and is not
13 complete. The last one indicates
14 there is still time to consider
15 some other engineering
16 alternatives. There are many
17 other inadequacies in the
18 document. It appears the
19 document was prepared in haste
20 and that the Corps should have
21 waited before circulating the
22 Draft IER for public and agency
23 comments. There are many
24 questions to be answered and they
25 are raised in our more detailed

1 comments. The record is also not
2 complete. Letters from EPA, the
3 Fish and Wildlife Service sent in
4 January were not posted on the
5 website. There should have been
6 a complete record of documents
7 somewhere so the public could
8 review the agency documents
9 before public comment period
10 closes at midnight tonight.
11 Technical reports were posted
12 during the public review period
13 and have not been summarized in
14 the Draft IER nor was there extra
15 time to review them. Because of
16 this, we ask the Corps extend the
17 comment period for another two
18 weeks. That will give the NGO's
19 the opportunity to communicate
20 with the resource agencies and
21 get a copy of their comments and
22 to review any new technical
23 reports posted on the web.
24 We also ask the amended
25 IER-12 be prepared and that it be

1 circulated for a 30 day public
2 review period as per the
3 alternative arrangements. This
4 document should include critical
5 data needed for both the Corps
6 and EPA decision making.
7 Regarding EPA's involvement, we
8 want to thank EPA and other
9 resource agencies for
10 recommending to the Corps a
11 change in the original preferred
12 alternative which would have
13 taken -- impacted over 600 acres
14 of this nationally significant
15 wetland. EPA has been a real
16 leader over the last 35 years in
17 protecting important wetland in
18 Jefferson Parish.
19 MR. BARRA:
20 One more minute.
21 DR. KOHL:
22 Much of the land in the
23 Barataria Preserve of the Lafitte
24 National Park was protected
25 through NGO and EPA's vision that

these wetlands were an important natural resource and shouldn't be destroyed. They are now protected in the National Park, and legislation will be transferring the 404 (c) Bayou aux Carpes area into the National Park later this year. We're asking EPA to require a fully funded multi-year baseline study to be undertaken to evaluate any modifications to the 404 (c) area to improve the water quality and hydrology. We're told that a one year baseline study is not enough to understand the complex hydrodynamics in a man-altered wetland system. Additional issues are addressed in our detail comments. We request that EPA require the Corps to do a thorough engineering analysis to avoid any of the 404 (c) wetland. A relocation of the T-wall one hundred feet would avoid all

1 impacts to Bayou aux Carpes.
2 This analysis must be completed
3 before EPA makes a decision on
4 whether to grant the Corps's
5 request for modification of its
6 404 (c) determination. In the
7 absence of that study, we ask EPA
8 to deny the Corps's request for
9 modification of the 404 (c)
10 determination. Thank you.
11 MR. BARRA:
12 Thank you. Felicia Kahn.
13 MS. KAHN:
14 Okay. Felicia Kahn, member
15 of the League of Women Voters of
16 New Orleans. The League of Women
17 Voters will submit comments to
18 the EPA regarding the protection
19 of wetlands and the park. We
20 have worked -- we have worked for
21 many, many years in this area and
22 have extensive knowledge about
23 it, and our statement will be
24 submitted before February 13. Is
25 that the correct date?

1 MR. BARRA:
2 Yes.
3 MS. KAHN:
4 So we thank you very much for
5 allowing us to appear.
6 MR. BARRA:
7 Thank you for coming. Allen
8 Hero.
9 MR. HERO:
10 I'm Allen Hero. I represent
11 some landowners on the
12 Mississippi River side of this
13 complex, and I would like to
14 commend the Corps, this idea was
15 first presented about 15 years
16 ago about putting the super -- at
17 that time I don't know what they
18 called it, the super pump, and
19 was denied because of the cost
20 benefit ratio I think was the
21 criteria in that time. And so I
22 think, you know, the Corps is
23 trying to get -- solve this
24 problem. There are a few issues
25 that we are concerned about along

1 the Harvey Canal that I brought
2 up in another one of these
3 hearings is -- that was talked
4 about briefly in this
5 presentation on the tension area
6 on the protected side of this
7 flood structure, there is still
8 some issues along the eastbank of
9 Harvey Canal that have not been
10 resolved and that those
11 businesses there, even though
12 they may have some protection,
13 that funding and that protection
14 has not been -- has not been
15 taken into by the local Levee
16 District. There is some conflict
17 as to how those businesses are
18 going to have protection when
19 this is completed. Right now
20 there is a temporary protection
21 on the east side of Harvey Canal
22 and there is no plan that I have
23 heard as to how that is going to
24 be maintained in the sense that
25 we are supposed to be having one

1 hundred year protection. I don't
2 think we are going to have that
3 at that location, so I think that
4 needs to be -- the Corps and the
5 EPA or whoever altogether need to
6 look at those issues ongoing
7 because once this is built, I
8 think everybody is going to think
9 it's all taken care of but there
10 is some issues there that have
11 not been addressed in the view of
12 myself and some other landowners
13 along Harvey Canal.
14 The other issue that I don't
15 know has been addressed, they
16 talk about all of this dredging
17 material coming out of the
18 intracoastal waterway and moving
19 that material some distance and
20 redepositing it, I think it's
21 most probably a more cost
22 effective way of moving that
23 material into some of the fast
24 land adjoining intracoastal
25 waterway rather than moving all

of that material ten miles away or wherever they are going to take it. And those are my comments. Thank you.

MR. BARRA:

Thank you for your comments. Jerry Huffman.

MR. HUFFMAN:

Good evening. I'm Jerry Huffman, President of the Harvey Canal Industrial Association. We represent 200 businesses along the Harvey Canal which are greatly affected by the decisions the Corps and the EPA will make today. For many, many years we have been seeking meaningful flood protection along the westbank. We think this proposal will give us the best shot at that. We understand there are very difficult environmental concerns. We are very much impressed by the interagency collaboration that has taken

1 place in order to address those
2 concerns. We support the Corps
3 request to the EPA to modify the
4 1985 Bayou aux Carpes Clean Water
5 Act Section 404 (c) Final
6 Determination and we support the
7 current plan for the West Closure
8 Complex as outlined in the IER-12
9 report. We feel that this
10 alignment will provide a much
11 needed and long waited storm
12 protection for the westbank of
13 Jefferson Parish. Now, the HCIA,
14 in cooperation with the other
15 business organizations,
16 commissioned an economic impact
17 study in late 2007. That study
18 included all of the businesses
19 from LaPalco Boulevard south of
20 the Hero Pumping Station. The
21 study revealed a total employment
22 of 1619 employees with an
23 aggregate payroll of more than
24 $67.5 million and showed a direct
25 and indirect spending of over

1 $1.1 billion. This study
2 excluded companies along the
3 upper portion of Peters Road, the
4 Destrehan corridor or Engineers
5 Road. The potential for economic
6 loss in this area, a direct hit
7 for a storm of Katrina like
8 proportions is catastrophic. We
9 applaud what you are doing, we
10 support your effort. We have
11 additional comments that we have
12 already submitted into the
13 record. Thank you for letting us
14 come and to speak.
15 MR. BARRA:
16 Thank you for coming. Tom
17 Halko.
18 MR. HALKO:
19 Good evening. My name is
20 Thomas Halko and I live in lower
21 Jefferson Parish, lower Lafitte,
22 which is beyond the cone of Jean
23 Lafitte, and, for the record, I
24 have experience in less than four
25 years -- four one hundred year

1 storms. With that being said, I
2 would like to concur with what
3 Mayor Kerner has stated as well
4 as Mr. Champagne, and I think,
5 first of all and far most that I
6 extend my appreciation to the
7 Corps of Engineers for all of the
8 hard work that they have done in
9 this region, for the EPA and for
10 federal involvement because I
11 think that it has made a
12 difference as it relates to our
13 lives and livelihood.
14 I think it's important, with
15 that being said, with all due
16 respect, I think that this
17 proposal is somewhat
18 shortsighted. I do believe that
19 there should be consideration
20 given to the concept that is in
21 and on the board as it relates to
22 the Donaldsonville to the Gulf
23 levee protection. I think it's
24 important to think about coastal
25 restoration going hand in hand

1 with levee protection, and I
2 think that this project does not
3 perfectly address that. This is
4 -- is advertised as the primary
5 protection for the New Orleans
6 westbank area. When I think that
7 -- it is important to think of a
8 line of defense that is further
9 south that perhaps is less
10 intrusive environmentally, I
11 think it's important to think of
12 all of the Barataria estuary, but
13 it is also important to note that
14 lower Lafitte is the staging area
15 for an offshore oil industry and
16 represents substantial jobs and
17 is very, very important to the
18 infrastructure of all of the
19 south and all of the nation, and
20 I am personally as a property
21 owner of Lafitte and I own
22 property in Algiers Point, that I
23 feel as if I am going to be
24 adversely affected by this
25 proposal because it's the

1 backwash that we will experience
2 and for attempting to protect a
3 few hundred or a few thousand
4 acres of pristine wetland, it may
5 compromise everything that is
6 pristine and wonderful south of
7 this area all of the way to Grand
8 Isle, and I think it's important
9 that -- to take note of that, and
10 I think sort of in a rush to
11 attempt to provide levee
12 protection and answers to people
13 that the totality of flood
14 protection is being minimized,
15 and I think that we need to turn
16 to the Dutch and look to see what
17 they have done and we -- they
18 have been able to both protect
19 their nation, not one hundred
20 year storms or five hundred year
21 storms, but a thousand year
22 storms, and have done so in
23 protecting the population as well
24 as their environment. Thank you.
25 MR. BARRA:

1 Thank you for your comment.
2 Okay. I believe we have heard
3 from all of the people who signed
4 up to speak. Okay.
5 Is there anyone who has not
6 signed up who want to sign up and
7 speak? Before we conclude, would
8 anyone who has spoken like to add
9 to their testimony? Yes, sir.
10 DR. KOHL:
11 I'm Barry Kohl with the
12 Louisiana Audubon Council. There
13 are a couple of items that I
14 skipped over before. One is the
15 dredging of the Algiers Canal.
16 We're very concerned about the
17 possibility of using dredge
18 material from the canal and
19 barging it to the Barataria
20 preserve. Their preliminary
21 information has shown that the
22 sediments in the bottom of the
23 canal are contaminated with
24 several toxics that could harm
25 the Lafitte National Park, the

1 ecosystem. One of the problems
2 with the Corps is they analyze
3 toxic sediments and its effect on
4 humans and they use screening
5 standards that is protective of
6 human life, not aquatic life, and
7 they intend to use this dredge
8 material and put it in the
9 National Park for erosion
10 control, which is good but it
11 should be clean sediments, and we
12 are just concerned about the
13 degradation of water quality in
14 the park and the fact that the
15 Corps has habitually done a very
16 poor job of analyzing
17 contaminated sediments and
18 placing them in areas that would
19 protect them from getting into
20 open water. Thank you.
21 MR. BARRA:
22 Thank you. Anyone else? Yes,
23 sir.
24 MR. CHAMPAGNE:
25 Realizing that Lafitte and

1 Barataria is the frontline, I
2 would ask this audience and the
3 Corps of Engineers to wish us
4 well. Thank you.
5 MR. BARRA:
6 Thank you. Anyone else? Yes,
7 sir.
8 MR. POURCIAU:
9 Lawrence Pourciau. I wanted
10 to kind of expand on one of the
11 comments that was made earlier
12 about the hundred one year level
13 of protection. It's my
14 understanding, and please correct
15 me if I am wrong, that that --
16 this came about from a one
17 percent chance in any given year
18 that we could be flooded; is that
19 correct?
20 MR. BARRA:
21 We'll have -- someone will
22 have to talk to you about that
23 during the open house after this
24 hearing.
25 MR. POURCIAU:

1 Okay. Well, that is my
2 understanding of it, and if it is
3 in fact the case, it probably
4 does the Corps more of a
5 disservice to anyone, of course
6 the citizens of New Orleans, you
7 know, for not benefitting from
8 this because mathematically the
9 way that works out is, you know,
10 in 30 years there is a 30 percent
11 chance that in any given one of
12 those 30 years that you could
13 experience a flood. Now, that
14 means there is a 70 percent
15 chance that you would not, but
16 almost one in three chance that
17 you would in fact experience a
18 flooding situation is kind of
19 scary, I think, and what this
20 does is it makes the people feel
21 safe and when a storm that is too
22 big comes, it will flood and then
23 of course the Corps will be
24 blamed; when in fact congress
25 didn't authorize enough funding

1 for the Corps to build a wall
2 that was high enough, and it
3 won't be the Corps fault but they
4 will be the one that the finger
5 was pointed at and by using this
6 terminology it does kind of make
7 most people feel safe, but, in
8 fact, you know, at some point
9 down the road, hopefully never,
10 but at some point down the road
11 guess who is going to get the
12 blame, the Corps, and I would
13 like to see the Corps adopt
14 something that puts pressure on
15 congress to maybe help authorize
16 a little more funding because I
17 see funding given out everywhere
18 lately to all areas of the
19 country yet I do still see, you
20 know, why can't funding be
21 approved for, you know, one of
22 the oldest cities and most
23 historic cities in America.
24 Thank you for letting me speak.
25 MR. BARRA:

1 Thank you. Yes, sir.
2 MR. MONDINO:
3 Gabriel Mondino. I would
4 like to add to my comment one
5 thing which I had recalled that I
6 failed to mention.
7 The EPA mentioned in the
8 presentation that the -- when the
9 404 (c) or 404 legislation was
10 enacted and the regulations were
11 enacted that they did not foresee
12 the need to -- they did not
13 include a mechanism for making
14 modifications to 404 (c) wetland,
15 and I think that that is very,
16 very pertinent because in
17 crafting legislation and crafting
18 legislation about especially
19 environmentally affected areas,
20 we know avenues made to make
21 those modifications, the
22 regulations and the statutes that
23 fail to include those are clear
24 and that if those modifications
25 aren't envisioned then those

1 modifications should not be made,
2 so my addition to my entire
3 comment is that with respect to
4 the floodwall affecting the 404
5 (c) area, I think that that
6 portion of the plan needs to be
7 roundly denied because of the
8 logic that went into creating the
9 404 impact in and of itself.
10 That's the only additional
11 comment.
12 MR. BARRA:
13 Thank you. Anyone else?
14 Okay. If there are no further
15 comments or issues to be
16 addressed, I will conclude this
17 public hearing. Representatives
18 of EPA and the Corps of Engineers
19 will remain in this room to
20 informally answer questions after
21 the conclusion of this hearing.
22 It is now approximately 7:57 p.m.
23 on February 11, 2009 and this
24 public hearing is hereby closed.
25 Thank you for coming.

1
2 (Whereupon the hearing was concluded at 7:57
3 p.m.)
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1
2 REPORTER'S CERTIFICATE
3
4 I, RACHEL Y. TORRES, a Certified
5 Court Reporter, do hereby certify that the within
6 witness, after having been first duly sworn to
7 testify to the truth, did testify as hereinabove
8 set forth.
9 That the testimony was reported by
10 me in shorthand and transcribed under my personal
11 direction and supervision, and is a true and
12 correct transcript, to the best of my ability and
13 understanding; that I am not of counsel, not
14 related to counsel or the parties hereto, and in
15 no way interested in the outcome of this event.
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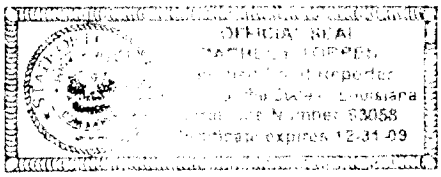

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ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2008–0650; FRL–8398–6]

Petition for Rulemaking Requesting EPA Regulate Nanoscale Silver Products as Pesticides; Extension of Comment Period

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; extension of comment period.

SUMMARY: EPA issued a notice in the **Federal Register** of November 19, 2008, concerning a petition for rulemaking and collateral relief filed by the International Center for Technology Assessment (ICTA) and others. In general, the petition requests that the Agency classify nanoscale silver as a pesticide, require formal pesticide registration of all products containing nanoscale silver, analyze the potential human health and environmental risks of nanoscale silver, take regulatory actions under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) against existing products that contain nanoscale silver, and take other regulatory actions under FIFRA as appropriate for nanoscale silver products. This document extends the comment period for 60 days from January 20, 2009 to March 20, 2009.

DATES: Comments, identified by docket identification (ID) number EPA–HQ–OPP–2008–0650, must be received on or before March 20, 2009.

ADDRESSES: Follow the detailed instructions as provided under **ADDRESSES** in the **Federal Register** document of November 19, 2008 (73 FR 69644).

FOR FURTHER INFORMATION CONTACT: Nathanael R. Martin, Field and External Affairs Division (7506P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: 703-305-6475; e-mail address: *martin.nathanael@epa.gov.*

SUPPLEMENTARY INFORMATION: This document extends the public comment period established in a notice that was published in the **Federal Register** of November 19, 2008 (73 FR 69644) (FRL–8386–4). In that document, the Agency made the petition submitted by ICTA et al., available for review and asked for public comment on the same. On December 12, 2008, EPA received a request from ICTA to extend the comment period on the petition. EPA is hereby extending the comment period, which was set to end on January 20, 2009, to March 20, 2009.

To submit comments, or access the public docket, please follow the detailed instructions as provided under **ADDRESSES** in the November 19, 2008 **Federal Register** document. If you have questions, consult the person listed under **FOR FURTHER INFORMATION CONTACT.**

List of Subjects

Environmental protection, Nanotechnology, Pesticides and pests.

Dated: January 8, 2009.

Martha Monell,

Acting Director, Office of Pesticide Programs.

[FR Doc. E9–622 Filed 1–13–09; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[FRL–8762–2]

Request for Amendment of Designation Prohibiting Discharges of Dredged or Fill Material to the Bayou aux Carpes Clean Water Act Section 404(c) Site, Louisiana

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Public Hearing and Request for Comments.

SUMMARY: In 1985, EPA prohibited the discharge of dredged or fill material to wetlands in the Bayou aux Carpes Swamp pursuant to Section 404(c) of the Clean Water Act (CWA). On November 4, 2008, the New Orleans District of the U.S. Army Corps of Engineers (Corps) requested that EPA modify that designation to accommodate discharges to the Bayou aux Carpes wetlands associated with post-Katrina upgrades to the West Bank and Vicinity Hurricane Protection Levee system in Jefferson Parish, Louisiana. EPA solicits written public comment on that request and will hold a public hearing for receipt of comments.

Public Hearing: The public hearing will be held in the District Assembly Room at the U.S. Army Corps of Engineers New Orleans District office, 7400 Leake Avenue, New Orleans, LA 70118. The public hearing will commence at 6 p.m. on February 11, 2009, and will end when all comments have been received. During the hearing, any member of the public may submit written comments or present comments verbally.

Public Comments: In addition to providing comments at the public hearing, written comments on the CWA Section 404(c) modification request may be submitted to EPA for 30 days following the date of this notice. Comments should be addressed to Ms. Barbara Keeler (6WQ–EC), EPA Region 6, 1445 Ross Avenue, Dallas, TX 75202–2733. All comments should directly address whether the 1985 Bayou aux Carpes CWA Section 404(c) EPA Final Determination should be modified as requested by the Corps.

FOR FURTHER INFORMATION CONTACT: For information regarding this matter, contact Ms. Barbara Keeler by phone at (214) 665–6698 or by e-mail at *keeler.barbara@epa.gov.* Copies of the modification request and supporting documentation are available online at: *http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/ModificationLetterToEPA4Oct08.pdf.* Additional project information may be found at: *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.*

SUPPLEMENTARY INFORMATION: The Bayou aux Carpes CWA Section 404(c) site is located approximately ten miles south of New Orleans, Louisiana, on the West Bank of Jefferson Parish. The site covers approximately 3200 acres, including about 3000 acres of wetlands subject to federal jurisdiction under the CWA. The area is bounded on the north by the east-west Old Estelle Pumping Station Outfall Canal, on the east by Bayou Barataria (Gulf Intracoastal Waterway), on the south by Bayou Barataria and Bayou des Familles, and on the west by State Highway 3134 and the "V-Levee." Immediately across State Highway 3134 to the west of the site is the Barataria Unit of Jean Lafitte National Historical Park and Preserve.

Section 404(c) of the CWA authorizes EPA to restrict or prohibit the use of a wetland area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. EPA published a CWA Section 404(c) Final Determination prohibiting, with three exceptions, future discharges of dredged or fill material to wetlands in the Bayou aux Carpes site at 50 FR 47267 (November 15, 1985). Since then, the Agency has received two other requests for modification.

In connection with initial construction of the West Bank Hurricane Protection Levee, the Corps requested that EPA modify its CWA Section 404(c) designation to allow extension of the toe of the "V-Levee"

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into the protected Bayou aux Carpes area. The Corps stated that such a modification would result in significant cost savings to the government and would affect only a relatively small part of the area protected by the Section 404(c) designation. EPA summarily denied that request and in 1988 the Corps modified the levee alignment to avoid discharges to the Bayou aux Carpes CWA Section 404(c) area.

In 1992, Shell Pipeline Corporation requested that EPA amend the designation to allow the discharge of dredged and fill material to wetlands in the Bayou aux Carpes CWA Section 404(c) area in connection with emergency reconstruction of a leaking pipeline. After notifying interested parties of the request via **Federal Register** publication and coordinating with the Corps and other agencies, EPA granted the request, publishing the decision at 57 FR 3757 (January 31, 1992). EPA concluded that relocating the pipeline to non-wetlands was infeasible from the perspectives of engineering and public safety, and that the work would have only minimal and temporary effects on the wetlands at issue.

The request noticed today was submitted by the Corps and is associated with proposed improvements to the West Bank and Vicinity Hurricane Protection Levee system. By way of a letter dated November 8, 2008, the Corps requested that the designation be modified to allow construction of an earthen berm and floodwall in an area disturbed by dredged material discharges predating the 1985 404(c) designation. The construction area is located along the west bank of the Gulf Intracoastal Waterway, or Bayou Barataria, from its junction with the Old Estelle Pumping Station Outfall Canal to a point at which the Corps proposes to construct a sector gate across the Waterway. As described in the modification request, the berm and floodwall would be 14 to 16 feet high and would occupy an area no greater than 4,200 linear feet by 100 linear feet. No more than ten acres of wetlands in the Bayou aux Carpes CWA Section 404(c) site would be affected and other design and construction features have been incorporated to minimize impacts to the wetlands.

The Corps is currently gathering baseline data to evaluate potential wetland mitigation options and other project features to improve the existing hydrology of the Bayou aux Carpes site. The Corps has committed to constructing those features if the analyses indicate that they would be ecologically beneficial. Discharges of dredged or fill material associated with such construction would require no additional modification to the CWA Section 404(c) designation, which contains an exception for approved habitat enhancement projects.

Additional information on the Corps project and its relationship to the Bayou aux Carpes site may be found in the alternative National Environmental Policy Act document, known as Individual Environmental Report #12 (IER #12), which is posted online at: *http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.*

The public hearing referenced above will be jointly conducted by EPA Region 6 and the Corps. At the hearing, EPA will receive comments on the Corps request to EPA to modify the Bayou aux Carpes CWA Section 404(c) designation and the Corps will receive comments on IER #12.

After considering all comments submitted, EPA Region 6 will transmit to the EPA Office of Water in Washington, DC, a written recommendation on whether the CWA Section 404(c) modification request should be granted or denied. The Assistant Administrator for Water will make the final decision and puhlish a notice of its availability in the **Federal Register**.

Dated: January 6, 2009.

Richard E. Greene,

Regional Administrator, EPA Region 6.

[FR Doc. E9–690 Filed 1–13–09; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission for Extension Under Delegated Authority, Comments Requested

January 8, 2009.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act (PRA) of 1995, 44 U.S.C. 3501–3520. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Comments are requested concerning (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

DATES: Written Paperwork Reduction Act (PRA) comments should be submitted on or before March 16, 2009. If you anticipate that you will be submitting PRA comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the FCC contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, Office of Management and Budget, (202) 395–5887, or via fax at 202–395–5167 or via Internet at *Nicholas_A._Fraser@omb.eop.gov* and to *Judith-B.Herman@fcc.gov*, Federal Communications Commission, or an e-mail to *PRA@fcc.gov*. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the Web page *http://www.reginfo.gov/public/do/PRAMain*, (2) look for the section of the Web page called "Currently Under Review", (3) click on the downward-pointing arrow in the "Select Agency" box below the "Currently Under Review" heading, (4) select "Federal Communications Commission" from the list of agencies presented in the "Select Agency" box, (5) click the "Submit" button to the right of the "Select Agency" box, and (6) when the list of FCC ICRs currently under review appears, look for the title of this ICR (or its OMB Control Number, if there is one) and then click on the ICR Reference Number to view detailed information about this ICR.

FOR FURTHER INFORMATION CONTACT: For additional information, contact Judith B. Herman at 202–418–0214 or via the Internet at *Judith-B.Herman@fcc.gov.*

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0755.

Title: Sections 59.1 through 59.4, Infrastructure Sharing.

Form No.: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit.

US Army Corps of Engineers
New Orleans District

Reducing Risk in Southeast Louisiana

The U.S. Army Corps of Engineers, New Orleans District, is hosting a **public meeting** to discuss environmental compliance efforts, per the National Environmental Policy Act.

Jan. 28, 2009 Plaquemines Parish Non-Federal Levees
Woodland Plantation
21997 Highway 23, Port Sulphur, LA 70083
Open House: 6:00p.m. – 7:00 p.m.
Presentation/Discussion: 7:00 – 9:00 p.m.

Meeting presentation will:

- Discuss the plans to upgrade the current Plaquemines Parish Non-Federal Levees as it will be discussed in the Supplemental Environmental Impact Statement.

The U.S. Army Corps of Engineers, New Orleans District is also hosting a joint **public hearing** with the Environmental Protection Agency.

Feb. 11, 2009 GIWW West Closure Complex/
Bayou aux Carpes 404 request for modification
US Army Corps of Engineers
District Office
7400 Leake Ave., New Orleans, LA 70118
Open House: 5:00 – 6:00 p.m.
Presentation/Comments: 6:00 – 9:00 p.m.

Meeting will:

- Provide a unique venue to take comments on the Corps' proposed action to reduce risk to communities surrounding the Harvey and Algiers canals as discussed in IER 12
- Provide a unique venue for the EPA to take comments on the Corps' proposed action which will require a modification to the Bayou aux Carpes 404(c) area, a wetland of national

Contact: Gib Owen (504) 862-1337
mvnenvironmental@usace.army.mil

www.nolaenvironmental.gov

EXHIBIT # 3
DEPONENT
TORRES REPORTING & ASSOCIATES
www.torresreporting.com

Times Picayune Jan. 20 or 1 [illegible] 28, 2009

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New Orleans District

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US Army Corps of Engineers
District Office
7400 Leake Ave., New Orleans, LA 70118
Open House: 5:30 – 6:00 p.m.
Presentation/Comment-only period: 6:00 p.m.

The Corps has extended the public comment period for IER 12 from Feb. 4 to Feb. 11, 2009. All comments given at the public hearing will be considered as official comments to IER 12.

Meeting will:

- Provide a venue to give comments on the Corps' proposed action to reduce risk to communities and businesses near the Harvey and Algiers canals as discussed in IER 12
- Provide a venue for the EPA to accept comments on the Corps' proposed action which will require a modification to the Bayou aux Carpes 404(c) area, a wetland of national significance under the jurisdiction of the EPA.

Contact: Gib Owen (504) 862-1337 mvnenvironmental@usace.army.mil

Learn more at www.nolaenvironmental.gov

Times Picayune Tue. / Wed Feb 11 2009

US Army Corps of Engineers New Orleans District

Building Strong SM

The U.S. Army Corps of Engineers, New Orleans District is hosting a joint **public hearing** with the Environmental Protection Agency.

Feb. 11, 2009 GIWW West Closure Complex/Bayou aux Carpes 404 request for modification
US Army Corps of Engineers District Office
7400 Leake Ave., New Orleans, LA 70118
Doors open at 5:30 p.m.
Presentation begins promptly at 6:00 p.m. and is followed by a comment-only period

The Corps has extended the public comment period for Individual Environmental Report 12 from Feb. 4 to Feb. 11, 2009. All comments given at the public hearing will be considered as official comments to IER 12.

Meeting will:

- Provide a venue to give comments on the Corps' proposed action to reduce risk to communities and businesses near the Harvey and Algiers canals as discussed in IER 12
- Provide a venue for the EPA to accept comments on the Corps' proposed action which will require a modification to the Bayou aux Carpes 404(c) area, a wetland of national significance under the jurisdiction of the EPA

The U.S. Army Corps of Engineers, New Orleans District, is continuing its series of public meetings to discuss environmental compliance efforts, per the National Environmental Policy Act, and project updates on the planned and proposed Greater New Orleans Hurricane and Storm Damage Risk Reduction System.

Mar. 3, 2009 New Orleans Lakefront Levees west of the Industrial Canal and Inner Harbor Navigation Canal Surge Barrier - Borgne and Pontchartrain
Lindy Boggs International Conference Center
2045 Lakeshore Dr., New Orleans LA 70122
Open house 6 p.m. Presentation and discussion 7 p.m.

Meeting presentation will:

- Provide an overview of the proposed action to improve the New Orleans Lakefront Levee as discussed in IER 4
- Discuss the status of construction of the Inner Harbor Navigation Canal Surge Barrier - Lake Borgne as previously discussed in IER 11 Tier 2 Borgne
- Provide an overview of the alternatives under consideration for reducing risk to the residents and businesses near the Inner Harbor Navigation Canal Surge Barrier - Lake Pontchartrain as it will be discussed in IER 11 Tier 2 Pontchartrain

Upcoming Public Meetings

Mar. 5, 2009
IER 11 Tier 2 Pontchartrain
Port of New Orleans
1350 Port of New Orleans Pl.
New Orleans LA 70160
Open house 8 a.m.
Presentation and discussion 8:30 a.m.

Mar. 11, 2009
IER 8, 9, 10 and borrow
Lynn Oaks School
#1 Lynn Oaks Dr.,
Braithwaite, LA 70040
Open house 6 p.m.
Presentation and discussion 7 p.m.

Contact: Gib Owen (504) 862-1337 mvnenvironmental@usace.army.mil

Learn more at www.nolaenvironmental.gov

US Army Corps of Engineers
New Orleans District

Reducing Risk on the Westbank

The U.S. Army Corps of Engineers, New Orleans District is hosting a joint **public hearing** with the Environmental Protection Agency.

Feb. 11, 2009 GIWW West Closure Complex/Bayou aux Carpes 404 request for modification
US Army Corps of Engineers
District Office
7400 Leake Ave., New Orleans, LA 70118
Doors open at 5:30 p.m.
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Contact: Gib Owen (504) 862-1337 mvnenvironmental@usace.army.mil
Learn more at www.nolaenvironmental.gov

Nola.com Feb. 2 – Feb. 11, 2009

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U.S.ARMY

What: A joint public hearing with the Environmental Protection Agency on the GIWW West Closure Complex and request for modification to the Bayou aux Carpes 404 c site

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US Army Corps of Engineers ™

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Police identify mother who threw newborn into lake; say she will be charged with first-degree murder

20-year old told [illegible] she sought abortion, adoption counselor

- Qualifying opens in for state appeals court posts and for Jefferson, Gretna and Westwego offices
- Apartment complex approved at former site of St. Aloysius High

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8:16 AM

Q&A with Times-Picayune beat reporter John Reid

- Trent Johnson's LSU Tigers have more

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When: Wed., Feb. 11, 2009

Doors open 5:30 p.m.
Presentation begins promptly at 6:00 p.m.

www.nolaenvironmental.gov

US Army Corps of Engineers ™

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Share Carnival tips!

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- Trent Johnson's LSU Tigers have more important things to worry about than

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Where:

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New Orleans District Assembly Room
7400 Leake Ave. New Orleans, LA 70118

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

February 9, 2009

EXHIBIT # 3
DEPONENT
TORRES REPORTING & ASSOCIATES
www.torresreporting.com

Ms. Barbara Keeler (6WQ-EC)
Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Ms. Keeler:

Please reference the Environmental Protection Agency's (EPA) Notice of Public Hearing and Request for Comments published in the Federal Register (Volume 74, No. 9, pg. 2072) on January 14, 2009. The U.S. Army Corps of Engineers (Corps), New Orleans District, has requested an amendment to EPA's Clean Water Act (CWA) Section 404 (c) designation which prohibits discharges of dredged or fill material into the Bayou aux Carpes Site in Jefferson Parish, Louisiana. That amendment is requested to allow the Corps to construct the proposed Westbank and Vicinity of New Orleans (WBV), Harvey to Algiers, 100-year level hurricane protection project, Individual Environmental Report 12 (IER 12), which is authorized in accordance with Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). The EPA has requested comments as to whether the 1985 Bayou aux Carpes CWA Section 404 (c) EPA Final Determination should be modified as requested by the Corps. The Service submits the following comments in accordance with the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321 et seq.), Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Service recognizes the importance of the Bayou aux Carpes wetland complex to fish and wildlife resources and believes that the designation is warranted to protect these sensitive areas from development. In cooperation with Federal and State partners, the Corps has minimized potential direct and indirect impacts to significant flotant marsh and cypress swamp habitat by aligning the floodwall along the periphery of the Bayou aux Carpes CWA Section 404 (c) site. While the preferred alignment has resulted in greater direct impacts to forested wetlands, those forested wetlands at one time were previously altered by fill material. The preferred alignment would enclose fewer wetland acres, and avoid the damaging hydrologic consequences associated with bisecting the Bayou aux Carpes flotant marsh with a structural barrier. Moreover, unlike the Harvey Canal-Bayou Barataria Levee project which was the catalyst for EPA's determination, the preferred alternative alignment would avoid inclusion of the Bayou aux Carpes flotant and cypress swamp complex into the flood protection system and subsequently placing the area under

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pumped drainage.

During the alternatives analysis for IER 12, the Corps considered a series of alternative gate locations within the project area that would minimize the need for parallel protection. One of these alternatives included constructing a sector gate across the Bayou aux Carpes CWA Section 404 (c) site and was initially the Corps' preferred alternative. The proposed floodwall alignment within the Bayou aux Carpes CWA Section 404 (c) site would have, not only directly impacted high-quality flotant marsh and forested wetlands, but would have isolated approximately 500 acres of flotant marsh by placing them within the flood protection system. Constructing a floodwall across flotant marsh would disrupt the dynamic hydrologic conditions characteristic of a flotant marsh and would disrupt the natural hydrologic regimes within the entire Bayou aux Carpes wetland complex negatively impacting significant fish and wildlife resources. As proposed, the preferred alternative would minimize impacts by avoiding bisecting the Bayou aux Carpes CWA Section 404 (c) site and by implementing innovative design and construction techniques (e.g., floodwall design, construction sequencing).

At this time, the Service is unaware of any threatened or endangered species or their critical habitat within the proposed hurricane protection system project footprint for IER 12. However, the project-area forested wetlands provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), and a bald eagle nest was documented within the Bayou aux Carpes drainage area in 2007. This should be considered when designing environmental augmentation features. The bald eagle was officially removed from the List of Endangered and Threatened Species on August 8, 2007. Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water in the southeastern Parishes. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead). Although the bald eagle has been removed from the List of Endangered and Threatened Species, it continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. The Service's Division of Migratory Birds for the Southeast Region (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. Should you need further assistance interpreting the guidelines or performing an on-line project evaluation, please contact this office.

Direct impacts to bottomland hardwood and swamp habitat associated with the preferred alternative were quantified by acreage and habitat quality (i.e., average annual habitat units or AAHUs). The Service used the Louisiana Department of Natural Resources Habitat Assessment Methodology (HAM) to quantify the impacts of proposed project features on upland and wetland bottomland hardwood habitat and used the Wetland Value Assessment (WVA) methodology to quantify the impacts on swamp habitat. The Service determined that direct impacts to approximately 9.6 acres of forested habitat (i.e., 2.4 acres of bottomland hardwood habitat and 7.2 acres of swamp habitat) within the proposed 100-foot right-of-way of the Bayou aux Carpes CWA Section 404 (c) site would result in the loss of 6.1 AAHUs. Riparian habitat and

associated fish and wildlife resources would be minimally reduced within the Bayou aux Carpes CWA Section 404 (c) site. Mitigation for unavoidable losses of wet and non-wet bottomland hardwoods and swamp habitat, caused by project features of the entire hurricane protection system will be evaluated through a complementary comprehensive mitigation IER. However, should this designation be amended and the Corps' proposed alternative authorized, mitigation for unavoidable impacts to the Bayou aux Carpes 404 (c) area would be provided concurrently with flood protection features and within the Bayou aux Carpes 404 (c) area.

To ensure that potential impacts resulting from the construction of a flood protection structure do not compromise the value of this nationally-significant wetland ecosystem and to maintain the integrity of the Bayou aux Carpes CWA Section 404 (c) site, the Corps is proposing to incorporate environmental augmentation features into the proposed hurricane protection project. Stormwater from the Old Estelle Pump Station canal is currently being directed into the GIWW bypassing the Bayou aux Carpes wetland complex. Because of the invaluable water quality functions wetlands provide, stormwater will be redirected through the Bayou aux Carpes CWA Section 404 (c) site which would restore the natural process of nutrient cycling and reduce the risk of eutrophication in the lower basin waterbodies, provided modeling results support that action. Proposed augmentations could supplement hydrologic exchange within approximately 3,000 acres of flotant marsh, cypress swamp, and wetland scrub-shrub habitat.

Although complete avoidance of the Bayou aux Carpes CWA Section 404 (c) site would be preferred, it is the Service's opinion that amending the designation as proposed would not have an unacceptable adverse effect on fish and wildlife resources within the Bayou aux Carpes wetland complex. The Corps has incorporated proposed environmental augmentation features as a feature of the proposed project. Provided that hydrologic modeling supports implementation of those features, the Service believes that those augmentations coupled with long-term monitoring will ensure that unforeseen impacts to the Bayou aux Carpes CWA Section 404 (c) site are avoided. On the condition that the Corps moves forward with modeling and design of the environmental augmentation features concurrently with hurricane protection features, the Service would not be opposed to EPA modifying the 1985 Bayou aux Carpes CWA Section 404 (c) EPA Final Determination.

We appreciate the opportunity to comment on the proposed amendment and look forward to the continued coordination with the EPA, the Corps, and other State and Federal resource agencies with regards to the proposed hurricane protection system project. Should you have any questions regarding our comments, please give me a call (337/291-3115).

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: FWS, Atlanta, GA (ES/HC)
Corps, New Orleans, LA
Jean Lafitte National Historical Park and Preserve, New Orleans, LA
NMFS, Baton Rouge, LA
LDWF, Baton Rouge, LA
LDNR, CMD, Baton Rouge, LA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

February 9, 2009

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LDNR, CMD, Baton Rouge, LA

EXHIBIT 7
DEPONENT
TORRES REPORTING & ASSOCIATES
www.torresreporting.com

Feb. 9, 2009
509 Third Ave.
Harvey, La. 70058

Gib Owen, PM-RS
U. S. Army Corps of Engineers
P. O. Box 60267
NOLA 70160-0267
mvnenvironmental@usace.army.mil

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733
keeler.barbara@epa.gov

Dear Sir and Madam:

I am writing today in regard to the GIWW West Closure Complex, the Corps' Individual Environmental Report 12, and the Corps' request to impact the Bayou aux Carpes 404© area here in Jefferson Parish, Louisiana. Common sense dictates that the 404© area continue to receive full protection, and that the Corps request be denied.

For my entire adult life, the Corps of Engineers has served as a combination lap dog/lap dancer/towel girl for the Louisiana Congressional delegation, which has always ranked at or near the top in terms of corruption and its penchant for acting in direct contrast to the welfare of its constituents. Admittedly, Alaska probably kept Louisiana out of the top spot the last few years, but not for lack of trying. Some of what can only be considered to rank amongst the nation's greatest eco-terrorists have been members of the Louisiana delegation: Billy Tauzin, J. Bennett Johnston, John Breaux, and Bob Livingston, to name a few. And today's delegation has been guilty of tremendous neglect. Over 20 years after the creation (against terrific political opposition) of the only National Park in the State, the park's boundaries have yet to be normalized.

For close to 40 years, I have been active in attempts to stop the Corps from either destroying or allowing the destruction of Louisiana's wetlands. But the Corps has routinely either encouraged or allowed the continued destruction of our wetlands. Thousands upon thousands of needless projects were approved by or thought up by the Corps with the primary intent of destroying wetlands that could protect and nurture us all for the sake of some individual's or corporation's short-term gain. Wherever and whenever possible, the Corps ignored the law and

shirked its duties, dreaming up garbage like Nationwide Permits and delegating its authority to local programs like that of Jefferson Parish, which has always tried to destroy as many acres of wetlands as is humanly possible.

Jefferson Parish politicians wanted desperately to destroy the Bayou aux Carpes area. The Corps desperately wanted to help them do so. Only the miraculous intervention of EPA stopped that destruction from occurring. The same people who threw their weight around in those days are still around today. There may be new people in the Corps with whom I am not acquainted, who may actually want to obey the law and do what's morally right. I hope so, although I would note that the Corps has yet to correct the situation in Crown Point, where Jefferson Parish has been illegally draining wetlands for over 30 years.

If our observations are correct, the talweg of the GIWW is now a few hundred feet from shore. The project was approved as a 125' by 12' channel, so there appears to be a tremendous amount of room for constructing a "T-wall" between the boundary of the Bayou aux Carpes 404© area and the boundary of the 125' authorized channel. We find no reason to encroach upon the 404© area to accomplish the Corps' stated purpose.

I myself live on the West Bank of Jefferson Parish. I need hurricane protection as much as anyone else. But there never was, and there is no reason to destroy wetlands to accomplish the completion of a hurricane protection levee system. Certainly, an area like the 404© area at Bayou aux Carpes is ever more rare, and as such ever more valuable as both habitat and a natural storm buffer. We cannot allow any of it to be lost. We cannot allow contaminated sediment to be placed in it. We cannot allow contaminated water to be pumped into it. We cannot bear to hear the word "mitigation", which has historically been as pathetic a failure as the Jefferson Parish motto "Jefferson's got to grow."

I hereby ask the Corps to modify its design to move the "T-wall" further in the direction of the GIWW talweg to spare any and all parts of the 404© area, and I hereby ask EPA to not allow the destruction of any part of the Bayou aux Carpes 404© area.

Thank you.

Yours truly,
Joseph I. "Jay" Vincent

EXHIBIT = 5

DEPONENT

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HARVEY CANAL INDUSTRIAL ASSOCIATION

January 19, 2009

Mr. Gib Owen
U. S. Army Corps of Engineers
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-RS
P. O. Box 60267
New Orleans, LA 70160-0267

RE: Draft Individual Environmental Report #12 (IER #12

Dear Mr. Owen:

The Harvey Canal Industrial Association (HCIA) is a business organization that represents the interests of businesses in the Harvey Canal area. We have been a driving force for area improvements for more than sixty years. We represent the vast majority of companies that will be impacted by Corps of Engineers flood control efforts on the West Bank of Jefferson Parish.

The HCIA has been working with local, state and federal officials on the levee alignment for the East of the Harvey Canal Project since 1987. Shortly before Hurricane Katrina, we felt assured that a final authorized alignment would provide the west bank with the desperately needed hurricane protection. However, with the levee failure during Katrina, the West Bank and Vicinity Project had to be redesigned and the project again went to the drawing board. What resulted was the first phase of the new 100 year protection project, i.e. the flood walls along Peters Road. Businesses between Lapalco Boulevard and the Hero Pumping Stations are now sandwiched in between the newly constructed flood wall with no permanent protection.

Since 2005, numerous alternative flood protection options and cost/benefit ratios have been studied to determine the best option for full risk reduction East of the Harvey Canal. The HCIA supports the Corps of Engineers proposed West Closure Complex (WCC) as identified in the IER 12 proposal. We will, however, continue to work to provide those affected businesses with a supplemental protection levee for the smaller storms, tidal surges or rain events that may enter the canal when the WCC is not needed.

We certainly understand and appreciate the concerns that have been expressed for environmental impacts to the Bayou aux Carpes Section 404(c) area. It is our understanding that there has been a tremendous interagency collaboration, especially with EPA, to help identify and adopt a comprehensive plan to minimize adverse impacts within the 404(c) area during construction and for

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a long term affect once the project is completed. But we feel strongly that much has been sacrificed by the business community – even to one large employer moving to another part of the State.

The HCIA supports the Corps' request to the EPA to modify the 1985 Bayou aux Carpes Clean Water Act Section 404 (c) Final Determination and we support the current plan for the WCC as outlined in the EIR 12 report. We feel the WCC alignment will provide the much needed and long awaited 100 year storm protection for the West Bank of Jefferson Parish.

The businesses along Peters Road have suffered long enough. Numerous rain events, hurricanes and tropical storms have flooded our businesses and threatened residential neighborhoods. The HCIA, in cooperation with other business organizations, commissioned an Economic Impact Study in late 2007. The study area included all the businesses from Lapalco Boulevard south to the Hero Pumping Station. The study revealed a total employment of 1,619 employees with an aggregate payroll of more than $67.5 million and showed a direct and indirect spending of over $1.1 billion.

This study did not include any companies along the upper portion of Peters Road, the Destrehan corridor or Engineers Road. The potential for economic loss to this area is astronomical and the HCIA urges the U. S. Army Corps of Engineers to approve the final draft of the IER 12 and to move the West Closure Complex project to completion.

Sincerely,

HARVEY CANAL INDUSTRIAL ASSOCIATION

Gerald J. Huffman, Jr.
President

Louisiana Audubon Council

1522 Lowerline St., New Orleans, LA 70118

February 11, 2009

EXHIBIT # 6

DEPONENT

TORRES REPORTING & ASSOCIATES, COURT REPORTING & LITIGATION SERVICES www.torresreporting.com

Gib Owen, PM-RS
U.S. Army Corps of Engineers
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New Orleans, LA 70160-0267

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Re: Combined public hearing on the Draft IER-12, on the modification of CWA Sec. 404(c) determination for Bayou aux Carpes; and hearing on GIWW West Closure Complex.

Dear Ms. Keeler and Mr. Owen,

First, the Louisiana Audubon Council wants to be on record as supporting a safe hurricane protection levee for the entire New Orleans area including the Westbank of Jefferson Parish. The Jean Lafitte National Historical Park and Preserve (JLNHPP) and Bayou aux Carpes (BAC) wetlands will provide non-structural protection and reduce the hurricane tidal surges before they reach the westbank levee system. Non-structural protection is provided by forested and non-forested wetlands and have been documented as reducing the height of tidal surges during Hurricanes Rita, Gustav and Ike.

We thank EPA and the other resource agencies for recommending to the Corps a change in their original preferred alternative, which was the Southern Closure option, GIWW-A. This alignment would have segregated the BAC, Sec. 404(c) area and adversely impacted 600 acres of flotant marsh.

The Corps' new preferred alignment (Alternative 2, GIWW-WWC) would directly take 9.6 acres of the BAC. While this is a large decrease in the taking of wetlands of national significance, the Corps should not stop there. Additional structural changes to the eastern levee and closure complex would avoid any wetland loss to the BAC. The Corps Alternative 2, should be modified to avoid any direct or indirect impacts to the Sec 404(c) wetlands. (see below).

Alternative 2, GIWW-WWC: (a suggested modification)

It is our opinion that the encroachment into the BAC wetlands can be avoided entirely by moving the "innovative T-wall", berm and riprap further into the waterway by 100 ft., thereby avoiding the 404(c) wetlands. Bayou Barataria includes the GIWW barge channel which has a congressionally authorized width of 125 ft and a depth of 12 ft (USACE, 1998). The GIWW barge channel is a minor constituent of the waterway which is now 500-650 ft wide along the eastern side of the BAC project area. Moving the T-wall 100 ft into an area which, based on Corps maps was land prior to 1971, would be a slight alteration of the preferred alternative.

A waterway with a width of 400 ft was sufficient in 1971 and provided adequate space for a 125 ft barge channel (which then was 31 % of the waterway width). The present width of the waterway, due to erosion by barge traffic, is now 100- 200 feet wider than in 1971 (USACE, 1971). This increased width reduces the portion of the waterway needed for the barge channel to 21 % of the total width. There are additional opportunities to improve the structural design of the T-wall and gate complex to avoid the BAC all together. The Corps stated that it intends to reduce the structural impacts on the BAC.

Alternative G-GIWW C: Sec. 2.5.3.4 (p. 49)

This section is a misrepresentation of the facts. It states that this alternative, of moving the "innovative T-wall" to avoid impacts to the 404(c) wetlands, would be to "construct the eastern innovative floodwall completely within the GIWW . . ." and that "construction of a floodwall within the heavily used navigation channel . . . would create engineering and construction challenges . . . "

The Corps suggests that building the floodwall in the navigation channel is the only other option to its preferred alternative. The navigation channel is only 125 ft wide in a waterway which is 600 feet in width. It appears that this misrepresentation is deliberately being used to discredit the practicability of this alternative.

What should be considered is moving the T-wall into the shallow water area which would still leave 500 ft to accommodate a 125 ft wide navigation channel. Congress authorized a 125 ft channel for most of the GIWW. If a wider channel was needed, Congress would have authorized it. Barges moored along the Harvey and Algiers Canals significantly reduce the waterway width available for barge navigation. This is evidently not a hazard to navigation. The alternative G-GIWW C was never presented in stakeholder meetings attended by our organization. Why weren't alternative designs presented in the DIER-12? Based on the various engineering designs of the sector gates and pumping station configurations (posted on the Corps' website), surely one could be modified to avoid the 404(c) wetlands all together. This deficiency should be corrected in the amended IER.

• Appendix K (Figure entitled, "Current Proposed Site Plan"): The description states that the "orientation of the pump station, gates, bypass channel and levee on east side of GIWW are not final and could change as design progresses." This means that there is still some flexibility and the final engineered design could avoid the 404(c) wetlands.

• Diagram 1 on p. 27 should be drawn to scale. It should also include the present width of the waterway and the position (centerline) of the 125 ft navigation channel. A scale showing the water depth should also be added. These figures should not be conceptual in this document.

Contaminated sediments: Appendices L, L(b) and M

The chemical analyses of the Algiers Canal sediments are not included in the Appendix of DIER-12. Only two contaminants are discussed but there is not a complete listing of COCs in which the bottom sediments were tested. Additional testing has been recommended but there is very little discussed in the DIER. A new document, dated Jan. 5, 2009, was posted on the website but not included in the DIER.

Of major concern to our organization is that the Corps intends to use the dredged material from the bottom of the Algiers Canal and barge it to the JLNHPP. The plan is to use the spoil to plug an erosional area along Lake Salvador and the Park boundary by placing the dredged material into a Geocrib. We support the use of clean spoil for beneficial use but <u>oppose</u> the introduction of contaminated material into the Park's ecosystem.

We request that this section of the IER be rewritten to fully identify the procedures undertaken by the Corps to determine whether the sediments are safe for open water disposal. The detection limit chosen does not take into consideration the affects of contaminants on benthic organisms - only the affect on human health. That update should include the location of sediment cores, chemical analyses of the sediments and a presentation of all the results in an appendix as part of an amended IER.

It is important that the screening procedure identify the levels of concentration of toxic sediments that cause chronic affects to benthic organisms as outlined in the NOAA's ER-M, ER-L sediment criteria for COC. In Appendix M the executive summary was omitted from the report as well.

Appendix L(b) recommends, "more sediment sampling . . . to further delineate the contaminated area." This canal could be contaminated with PAHs and other hydrocarbon derived toxics. The executive summary dated 1/5/09 for Final Phase II ESAR (and posted on the website) must be included in the amended IER-12 as well as the sediment data. The detection limit for PAHs was set at 330 ppb which is too high to detect many PAHs that have a consensus based TEL below this detection limit (Macdonald et al., 2000). Many states are using the consensus based TEL as a screening level for cleanup of contaminated sediments to protect aquatic organisms.

The ESAR stated that the toxic review was based on human impacts not impacts to the biota and used the LDEQ RECAP screening standards which do not consider the broader environmental impacts. Since these sediments will be deposited in the National Park, they should be tested for impacts to the biota as the highest priority. Unless this is done we oppose any of the Algiers Canal sediments being used as fill in the Barataria Preserve.

Enterprise Pipeline Relocation:

We did not find one map that identified the location of the existing Enterprise pipeline nor a discussion of the impacts of relocation of the pipeline on the BAC wetlands. In Appendix K figure 1 is a dashed line labeled pipeline relocation. Does this pipeline belong to Shell? It is identified on earlier corps maps as a Shell pipeline (USACE, 1971). There should be a full discussion describing how the relocation will prevent any direct or indirect impacts to the BAC. Will the old pipeline be removed? How old is it? How much will be relocated? Between what reference points will the work be done? (point A to point B). Will the pipeline segment reconnect to the old pipeline. We request the amended IER include an expansion of the discussion section fully explaining the pipeline relocation procedure and impacts to the BAC.

Data Gaps and Uncertainties: (p. 16)

Of concern to us, is that any additional information gathered over the one-year baseline study will come after the project has been approved. This includes most of the impacts to the BAC area.

Also, the engineering design report for the gates and floodwalls has not been completed. On page 16 it states, "At the time of the submission of this report, engineering evaluations have not been completed for all of the proposed actions and alternatives."

In fact, this section lists the data not included in this DIER-12 as; 1) sources of levee material have not been identified, 2) environmental surveys are not complete, 3) cumulative impact data are not complete, 4) impacts on transportation remain unknown, 5) the engineering analysis is based on a concept level design and is not complete.

The DIER states that a Draft Comprehensive Environmental Document (CED), "will contain updated information for any IER that had incomplete or unavailable data at the time it was posted for public review." (DIER, p. 14). This means that potentially critical information will not be available at the time the IER is approved and construction commences. The long list of inadequacies admitted by the Corps shows that this document should have been witheld until the Corps had time to finish its work and prepare a complete IER prepared for public and agency review.

"Augmentation" issues:

Length of study:

We find the one year baseline study for the BAC too short. For a proper study, several annual cycles are needed especially for hydrologic information due to changes in rainfall patterns from year to year.

Monitoring:

The water monitoring should include the measurement of water flow under Highway 3134. The swamp on the west side of the highway is presently in the JLNHPP. This highway bisected the BAC in 1977. There should be water flow monitoring at the culverts which allow water to pass under the highway. The conditional permit given to the DOTD and the congressional authorization for the highway requires that normal water circulation be maintained. It has now been over 30 years since the highway embankment was completed. How much subsidence has there been? Are all the culverts open to normal water exchange under the highway? What is the effective culvert cross sectional area available for water flow? Is there tidal exchange at the culvert locations? If so, can it be measured on both sides of the highway?

Degrading levees:

We agree that oil and gas drill hole canals should have the spoil banks degraded and in some instances the canals should be plugged. This should be done carefully since the canals and spoil banks have been there for over 40 years. A hydrologic study should consider that the swamp may be in equilibrium with the man-made ponding and drainage. Changes to the system must not harm the ecosystem of the BAC.

Opening Bayou aux Carpes shell dam:

As with degrading the levees, the opening of the dam to water flow from Bayou Barataria, during hurricane surges, may harm the swamp. Salinity ranges need to be measured in Bayou Barataria to assure that flow into the swamp will not harm or raise salinities within the leveed system.

Estelle stormwater diversion:

There is insufficient information on how contaminants in the effluent discharge from the Estelle Pumping Station will be measured. A complete list of the analytes should be included in the amended IER. We are concerned that diverting the urban effluent into BAC may not be beneficial for the wetlands. The effluent of many of the pumping stations, monitored by Jefferson Parish, have been documented to contain lead, arsenic, chromium and mercury.

How much monitoring will take place to properly document the water quality of the effluent over decades if the water will be used in the BAC? As urbanization increases in the basin, water quality will decline as more polluted urban runoff is pumped into the Estelle Canal.

We suggest that the effluent be monitored for chemicals which have shown up in Jefferson Parish analysis of effluent discharge into the Barataria Preserve (such as the Ames and Crown Point pumping stations). Water effluent monitoring must be continued over the life of the project.

The Audubon Council requests a meeting with the federal and state resource agencies to review the results of the "augmentation studies". There must be public input and review before the final decision is made to modify the BAC 404(c) ecosystem.

Inclusion in the Barataria Preserve:

The Bayou aux Carpes 404(c) area will be included within the Jean Lafitte National Historical Park and Preserve this year. Senate bill S. 22 has passed the US Senate and it is expected to pass the House soon. There are now two reasons to protect the BAC well into the future as, 1) a 404(c) area and, 2) part of the Barataria Preserve of the National Park.

Revision of the DIER necessary (IER addendum):

Because there are still important data omitted from the draft document, we request that a revised/amended IER be prepared and circulated to the public and resource agencies for review. According to the federal register, "an IER addendum responding to comments received will be completed and published for a 30-day public review period." (USACE, 2007). We are formally requesting that IER-12 be amended to include omitted information, and full responses to the public/agency comments on the DIER-12. The document should include:

1). Design of the sector gate complex with alternative designs presented- not "conceptual diagrams".
2). Alternative designs for the innovative floodwall to avoid the 404(c) area
3). Review of all dredged sediment data and chemical analyses. Decision whether dredged sediments can be utilized for beneficial purposes in the JLNHPP, based on acute and chronic impacts of toxic sediments to benthic organisms.
4). More specifics on the length of time and parameters measured for all studies discussed in the "augmentation" section of the DIER - including beneficial or adverse impacts to the 404(c) wetlands.

5). Monitoring plan details - include detailed section on rationale for placement of water flow instruments and hydrologic modeling
6). More details on the relocation of the Enterprise pipeline and its impacts to the 404(c) area.
7). A thorough analysis of the proposed diversion of urban discharges from the Estelle pumping station into the 404(c) wetlands. Also, include the impacts of pollutants on the 404(c) area.

All these issues and other data gaps must be thoroughly discussed and presented in the amended IER.

Summary:

1) In conclusion, we oppose Alternative 2, the preferred alignment, as presented in the DIER-12. The Corps admits that the engineering designs for the floodwall and gate complex are not complete and therefore we believe the design can be modified to avoid the 404(c) wetlands entirely. The new designs and supportive data should be presented in a IER addendum for public review and comment. We will reconsider our position based on the new document.

2) We also recommend that EPA deny the request by the Corps to modify its final determination on the Bayou aux Carpes CWA 404(c) since the Corps hasn't finished its alternative engineering designs for the floodwall and gate complex. It would be premature for any action to be taken by EPA at this time.

3) We oppose a process whereby any deficiencies in this IER will be answered sometime in the future - as part of a catchall document. The public must be engaged in one single process which comes to a single conclusion - not a decision process which is segmented and strung out for several years on a specific IER. It is supposed to be an individual environmental report.

4) It appears that this DIER was rushed through without the adequate internal review. This is precisely what we were concerned about with the Alternative Arrangements (USACE, 2007). It appears that expediency was the prime factor - not a thorough evaluation of the environmental impacts and avoidance. It would be a better process if the Corps allowed time for its engineers to carefully design and check its own proposals and then the public could review and comment on a document that was ready rather than one which is incomplete.

Sincerely,

Barry Kohl

Dr. Barry Kohl
President, LAC

cc:
Delta Chapter Sierra Club
Gulf Restoration Network
National Audubon Society
National Wildlife Federation
Tulane Environmental Law Clinic
Horst Greczmiel, CEQ
National Wildlife Federation
National Park Service
US Fish and Wildlife Service
National Marine Fisheries Service
La DNR

References:

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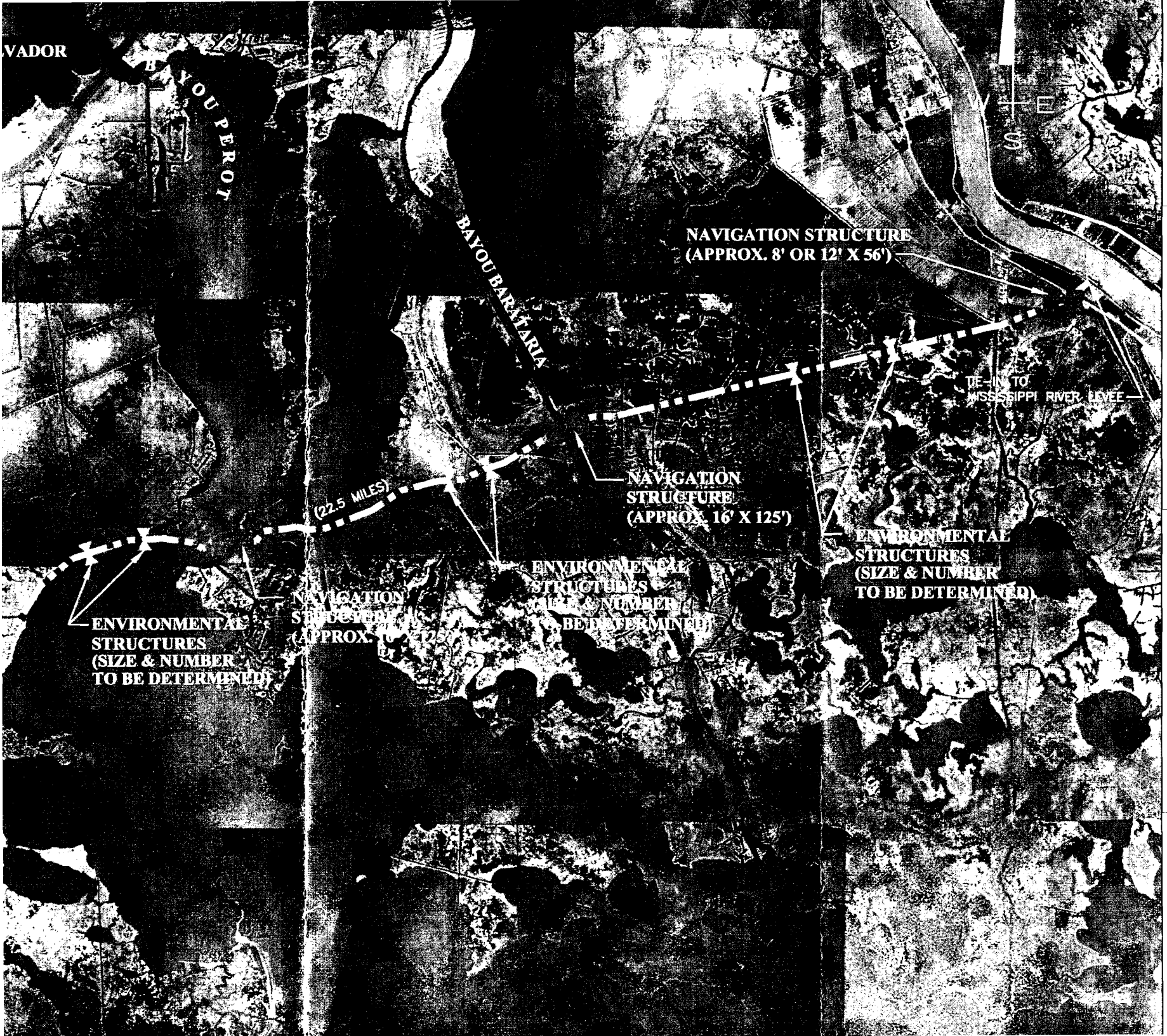

MARK	DESCRIPTION	DATE	APP

Shaw' Shaw Coastal, Inc.

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AN ADDITIONAL OFFICE IN WESTWEGO, LA.

DESIGNED BY: VO	PLOT SCALE:	PLOT DATE: 9/15/08	DESIGN FILE NAME: figure 2 and 3 .dwg
CHECKED BY: JC	1:6000		SUBMITTED BY:
DRAWN BY: JC			SOLICITATION NO. X
DATE: 9/15/08			DESIGN ENGINEER

DONALDSONVILLE, LA TO THE GULF
FIGURE 2
LOWER JEFFERSON
ALTERNATIVE

2 and 3 .dwg (plot: figure 2)

Ray Champagne
504 274 1689

GULF RESTORATION NETWORK

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February 11, 2009

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RE: DRAFT INDIVIDUAL ENVIRONMENTAL REPORT 12 AND PROPOSED MODIFICATION TO 404(C) ACTION

Dear Mr. Owen and Ms. Keeler:

I am writing on behalf of the Gulf Restoration Network (GRN), a diverse coalition of individual citizens and local, regional, and national organizations committed to uniting and empowering people to protect and restore the resources of the Gulf of Mexico. Please accept the following comments regarding the Army Corps of Engineers' *Draft Individual Environmental Report: GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana (IER #12),* and the *Proposed Modification to the Bayou aux Carpes 404(c) Action.*

While we recognize that the protection of our coastal resources is urgent, we have some comments and concerns about several aspects of IER #12 as it is currently written. These concerns are outlined below:

1. ***Public Participation is Not Adequate***

   While the public comment period was extended to at least coincide with the public hearing, this is still not adequate. If the public hearing lasts until 9:00 pm, this only allows the public three hours to process and comment upon any information presented by the Corps or other commenters. *Because of this, we request the public comment period be extended to allow for the public to comment upon new information gained at the hearing.*

2. *Full Avoidance of Bayou aux Carpes 404(c) Must Be Further Analyzed*

We would first like to applaud the Corps for working with us and EPA to develop the proposed alignment, instead of selecting an alignment that would have bisected the Bayou aux Carpes area. It is important that the Corps continue to recognize the importance of this ecologically sensitive area.

However, we feel that the 9.6 acres in the Bayou aux Carpes could be further avoided. On page 49, it is stated that "alternatives that would avoid impacts to that area were considered...this alternative was eliminated from further consideration due to constructability and navigation concerns" because it would "create engineering and construction challenges..." This statement is not supported. The navigation channel is authorized to be 125 feet wide, while the waterway is 400-500 feet wide. The Corps does not demonstrate in this IER why it is not feasible to place the T-wall further out into the waterway. Assuming the channel is in the approximate center of the canal, this would still allow a large buffer between navigation and hurricane protection. Because of this lack of justification and failure to demonstrate the necessity of impacting the 9.6 acres of the Bayou aux Carpes, we request that the moving of the t-wall further out be analyzed in order to further reduce, or even eliminate the wetland impacts. We request that an analysis be done examining moving the flood wall different distances out into the water. Since this would constitute a significant change, the IER should also be re-noticed. Additionally, EPA should not grant a 404(c) modification until it is shown that the Corps thoroughly explored all options for the reduction or elimination of impacts to the 404(c) area.

3. *Wetland Impacts Must be Considered Fully*

While Table 6 on page 63 presents the total direct wetland impacts anticipated, secondary and indirect impacts are not addressed. With increased storm protection comes increased development pressure. In fact the Bayou aux Carpes area was originally going to be drained and developed several years ago. On page 47, the Corps even admits that rezoning "could minimize future damages from new development in flood–prone areas," thus implying that the surrounding areas very well could be developed given current zoning. This secondary effect must be taken into account. Further, taller and more expansive levees and flood walls have the potential to disrupt the flow of water through wetlands, potentially impacting these wetlands.

In order for this IER to fully address its environmental impacts, secondary and indirect impacts must be accounted for within the report, and slated to be mitigated for, just as direct impacts are.

Additionally, cumulative impacts are not thoroughly addressed. Acknowledging that cumulative impacts will be discussed fully in the CED, more on cumulative impacts should be included in this IER. In past meetings with the Corps, they have presented a spreadsheet that had current impacts and anticipated impacts. This analysis, or best estimate of cumulative impacts should be included in this and all subsequent IERs

4. ***Augmentation Features Must Be Thoroughly Researched and Planned***

In order for EPA to make a truly informed decision the "augmentation features" must be further designed and studies. The impact to the 404(c) area is partially justified because some augmentation features are being examined, the largest of which would be the gapping of the canal to the north of the area to allow storm runoff to flow through the wetland. A baseline study of at least two years should be done to see if this would indeed augment the area. Given that this water would be urban runoff, which could potentially be carrying high levels of nitrogen and phosphorus, metals, and petroleum products, care must be taken to ensure that this "fresh" water is truly fresh and not too contaminated to cause damage to the wetland over the short and long term.

The operating plan and funds for the augmentation features are also not discussed in this IER. On page 39, it is stated that "modifications to the banks and shell plug in the Bayou aux Carpes CWA Section 404(c) area would not be expected to require [operation and maintenance]." However the monitoring and control of flood structures in the canal would require monitoring, operation, and maintenance for at least several years after they are put into operation. The operation and management of the augmentation features must be addressed and guaranteed for years to come.

We also request if this action proceeds, a contingency plan is written into the project. Specifically if some or all of the augmentation features are not beneficial to the area, more mitigation should be required within or adjacent to the 404(c) area, since part of EPA's decision depends on the success of these augmentation features.

5. ***Beneficial Use***

It is stated that dredge material will be used beneficially in the "crib" area to build wetlands. This must be detailed more in the IER. Specifically, contaminants and wetland building plans must be further addressed. The dredge materials must be tested for contaminants to ensure that humans *and* wildlife will not be acutely or chronically harmed by any contaminants from industrialized navigation channels. Additionally if contaminated sediment is identified, and it is landfilled, this sediment would probably first be de-watered, which could cause large water quality issues.

Since this would be an obvious environmental impact, the effects of this dewatering of contaminated sediment must be addressed fully in the IER.

Further, a specific plan for wetland creation utilizing dredge material should be detailed in this report. It is not acceptable to defer this to the mitigation IER, as dredge disposal is an integral part of this project. This plan is vital in order to ensure that dredge material is not simply dumped in the crib area, but a plan is followed that will give wetlands the best opportunity for sustainable production.

Also regarding beneficial use, it is stated on page 29 that "overburden material...would be mulched and used on site or hauled away to a landfill." At a recent meeting we asked why this overburden cannot be used beneficially in wetland creation instead of being hauled to a landfill, and our question was not adequately answered, so we ask again if the Corps looked into this beneficial use of overburden. If so, this information should be in the IER, if not, we formally request that this be explored within this IER.

6. ***Non-Structural***

This IER, as well as other IERS that we have reviewed do not adequately address non-structural options to potential projects for the 100 year protection for metro New Orleans. On page 47, it stated that "no combination of non-structural tools could independently achieve the required 100-year level of risk reduction needed to provide hurricane surge protection on the [West Bank and Vicinity] as intended by federal statutes." However, the question is not "can non-structural tools *eliminate* the need for structural storm protection," but can it be used in *combination* with structural components to achieve protection that is sustainable and reduces the impact on the natural environment. We feel that the Corps is misinterpreting WRDA. While WRDA states that nonstructural measures can be considered independently or in combination with structural measures (p. 45 of IER #12), the combination of structural and nonstructural is completely ignored.

Additionally, when discussing the "raise in place" option, the IER assumes that all structures would have to be raised, and that each residential structure averages 1,800 square feet. Given that nonstructural and structural can be used together, the assumption that all buildings would have to be raised is a false assumption. Additionally, we request evidence to support the assertion that the average home in this area is 1,800 square feet.

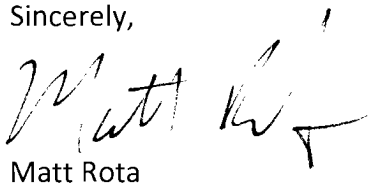
7. ***Preliminary Alternatives Screening Table is Not Complete***

   Table 3 on page 50 has errors in the key, and thus is not correct. In the table there are checks, dots, and x's, however nowhere in the table is it stated what a check is. This is a very important table, as it is supposed to summarize how each alternative was screened. Without knowing what the symbols are, it is impossible to interpret this table. Given the importance of this table, we request a re-notice of this IER, so we and EPA can be positive that the best option was truly chosen.

Thank you for the opportunity to comment on IER #12 and the 404(c) modification. While we are pleased that the Corps has worked towards avoiding impacts to the 404(c) area, we feel that more could potentially be done to protect the area. Given this, we request that EPA not modify the 404(c) action until IER #12 is truly completed, including the additions that are suggested above.

We trust that the Corps and EPA will take all of the above comments seriously, as they would enhance the project. We look forward to a timely written response. Further, we would welcome the opportunity to meet with the agencies to discuss our concerns.

Sincerely,



Matt Rota
Water Resources Program Director

CC:

John Ettinger, US EPA
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Melissa Samet, American Rivers
Barry Kohl, LA Audubon Council
Jill Witkowski, Tulane Environmental Law Clinic
Mike Murphy, Tulane Environmental Law Clinic
John Lopez, Lake Pontchartrain Basin Foundation
Carlton Dufrechou, Lake Pontchartrain Basin Foundation
Mark Davis, Tulane University
Maura Wood, National Wildlife Federation
Juanita Constable, National Wildlife Federation
Natalie Snider, Coalition to Restore Coastal Louisiana

Steven Peyronnin, Coalition to Restore Coastal Louisiana
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February 11, 2009

Gib Owen, PM-RS
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Re: Combined public hearing on the Draft IER-12, on the modification of CWA Sec. 404(c) determination for Bayou aux Carpes; and hearing on GIWW West Closure Complex.

The Sierra Club Delta Chapter supports a safe hurricane protection levee for the entire New Orleans area including the west bank of Jefferson Parish. We also support the use of natural systems such as forested and non-forested wetlands to add progressive barriers to storm surges.

We thank EPA and the other resource agencies for recommending to the Corps a change in their original preferred alternative, which was the Southern Closure option. It appears that the proposed alternative would take 9.6 acres of the BAC as opposed the 600 acres of marsh that would have been impacted by the earlier proposal. While this is a large decrease in the taking of wetlands of national significance, we suggest that the Corps can do better. Additional structural changes to the eastern levee and closure complex would avoid any wetland loss to the BAC. The Corps Alternative 2, should be modified to avoid any direct or indirect impacts to the Sec 404(c) wetlands. It appears that there is adequate space to move the structure further into the waterway so as to avoid the 404(c) wetlands.

We are also concerned that any additional information gathered over the one-year baseline study will come after the project has been approved. This includes most of the impacts to the BAC area. Also, the engineering design report for the gates and floodwalls has not been completed. The DIER states that a Draft Comprehensive Environmental Document (CED) "will contain updated information for any IER that had incomplete or unavailable data at the time it was posted for public review." It appears that potentially critical information will not be available at the time the IER is approved and construction commences. The list of inadequacies admitted by the Corps shows that this document should not have been released until the Corps had time to finish its work and a complete IER prepared for public and agency review.

We are informed that the Bayou aux Carpes 404(c) area will be included within the Jean Lafitte National Historical Park and Preserve this year. Senate bill S. 22 has passed the US Senate and it is expected to pass the House soon. This provides significant additional importance to the protection of the BAC as, a 404(c) area and as part of the Barataria Preserve of the National Park.

Because there are still important data omitted from the draft document, we request that a revised/amended IER be prepared and circulated to the public and resource agencies for review. We are formally requesting that IER-12 be amended to include omitted information, and full responses to the public/agency comments on the DIER-12

In conclusion, we oppose Alternative 2, the preferred alignment, as presented in the DIER-12. We request the Corps do an amended IER containing new designs and supportive data, and we strongly recommend that EPA deny the request by the Corps to modify its final determination on the Bayou aux Carpes CWA 404(c). Furthermore we request that the comment period be extended so that all interested parties have adequate time to prepare substantive comments.

Thank you,

Haywood Martin, Chair
Sierra Club Delta Chapter

cc: Louisiana Audubon Council