FINAL DETERMINATION OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S ASSISTANT ADMINISTRATOR FOR EXTERNAL AFFAIRS CONCERNING THE BAYOU AUX CARPES SITE IN JEFFERSON PARISH, LOUISIANA PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT
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I. Introduction

Under Section 404(c) of the Clean Water Act (CWA, 33 U.S.C. 1251 et seq), the Administrator of the Environmental Protection Agency (EPA) is authorized to prohibit the specification (including withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearing, that the discharge of dredged or fill materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such a determination, the Administrator shall consult with the Chief of Engineers, the property owner(s), and the applicant(s) in cases where there has been application for a Section 404 permit. The Administrator has delegated this authority to make a Final Determination under Section 404(c) to the Assistant Administrator for External Affairs, who is EPA's national Section 404 program manager.

This determination concerns the Bayou aux Carpes site shown in Attachment A. This site, which includes approximately 3000 acres of wetlands, is the location of a proposed Corps of Engineers' flood control project. This project has been partially completed; a ring levee has been constructed around the entire site except at the confluence of the Southern Natural Gas Pipeline canal and Bayou Barataria. Completion of this project would involve the discharge of fill material into the canal at its confluence with Bayou Barataria to close the only tidal connection to the site and into the Bayou aux Carpes (a tidal waterbody within the site) to facilitate the installation of a pumping station to drain the wetlands. The project is designed to provide flood control and land reclamation, which would be accomplished by draining the wetlands. Completing the flood control project might lead to additional proposals involving the discharge of fill material into the Bayou aux Carpes site by private property owners.

I have carefully considered the record in this case, including public comments, the public hearing record, site specific evaluations, coordination with affected property owners, and information provided by other agencies and knowledgeable individuals. I have determined that the discharge of dredged or fill material in the Bayou aux Carpes site, except as provided below, will have unacceptable adverse effects on shellfish beds, fishery areas, (including spawning and breeding areas), wildlife and recreational areas, as described more fully below, and I am, therefore, exercising my authority to restrict the site accordingly.
The restricted discharges include any for the purpose of completing the original Harvey Canal-Bayou Barataria Levee Project as well as any other discharges within the site not listed below that are subject to Section 404 of the Clean Water Act. However, this restriction does not include: (1) discharges necessary for completion of the modified Harvey Canal-Bayou Barataria Levee Project, as described in the Wilson Order of November 16, 1976 (replacement of the closure at the confluence of Bayou aux Carpes and Bayou Barataria with floodgates is a necessary element of such completion); (2) discharges associated with routine operation and maintenance of the Southern Natural Gas Pipeline Company pipeline as long as dredged or fill material is placed in piles with breaks in between to allow inundation of adjacent wetlands and as long as pre-maintenance contours are restored and; (3) discharges associated with projects with the sole purpose of habitat enhancement specifically approved by EPA. Discharges associated with these three classes of activities may take place, provided they are authorized by a Corps of Engineers' Section 404 permit. My findings and reasons for this determination are also set out below. This 404(c) action does not affect the legality of material previously discharged within the site under Section 404, or require its removal, nor does it affect discharges exempt from regulation under Section 404(f).
II. Background and History

A. The Project

In 1964, the Corps of Engineers (Corps) approved a flood control project called the Harvey Canal - Bayou Barataria Levee Project (Levee Project) for the West Bank of Jefferson Parish. The project was to be constructed in two phases: Phase I involved the construction of levees; Phase II was to involve primarily the closure of Bayou aux Carpes, which tidally connected the Bayou aux Carpes site with Bayou Barataria, as well as the installation of a pumping station at the mouth of Bayou aux Carpes waterway (refer to Attachment A). It was initially contemplated that the Levee Project would provide flood protection and land reclamation benefits in the area; land reclamation would be achieved through drainage, by the pumping station of the 3000 acres of wetlands enclosed by the levees.

The Corps New Orleans District prepared an Environmental Impact Statement (EIS) in 1970 on its proposed Civil Works project recommending that the project be constructed. Construction of initial levees for the "federal project" (Phase I) was begun in 1971 and was completed by the Corps of Engineers in November, 1973. Upon completion of Phase I, the project was 80% complete and all federal funds were exhausted. Phase I serves to provide some flood protection, but did not result in, or allow, drainage and land reclamation. In addition, gaps in the levee were left at Bayou aux Carpes, the Southern Natural Gas Pipeline Canal and a partial opening at Bayou des Familles. Because Federal funds were exhausted, all remaining work had to be financed locally (assurances of such funding are referred to as local assurances). The second lift levee work, which involves depositing additional material to raise the levee elevation, was never completed. As part of Phase II, local interests completed the closure of the Bayou aux Carpes opening using clam shell fill. This closure exists in good condition today. The Bayou des Familles opening was also closed at one point, using an earthen fill, however, this closure has deteriorated to a point which currently allows tidal exchange. Neither Bayou closure was specifically authorized pursuant to the Clean Water Act. A contract was let by the Parish for the construction of the pumping station and construction materials were moved to the site. Construction, however, was halted in November 1974 when the Corps initiated a Section 404 review of the project.1/

1/ Section 404 was not considered when the project was originally approved in 1964 since Section 404 of the Clean Water Act was authorized by Congress in 1972. The Clean Water Act has no grandfather provision exempting from regulation those discharges which were planned prior to but which did not occur until after its enactment.
The Corps New Orleans District held a public hearing in January 1975 to receive comments on the proposed project. In March 1975 Colonel Heiberg, the New Orleans District Engineer, completed his review and issued a Statement of Findings and recommended that the pumping station be installed and that the project proceed to completion. In a letter dated April 25, 1975 EPA Region VI objected to the Statement of Findings and concluded that "the permanent blocking of Bayou des Familles and Bayou aux Carpes and the subsequent draining of the area enclosed by the ring levee would result in the irretrievable loss of valuable wetlands, have an unacceptable adverse impact on wildlife and recreational areas, and not be in the public interest." Following the review of EPA Region VI's position, Brigadier General Drake Wilson, the Deputy Director of Civil Works, recommended completion of the project as originally approved and authorized.

In March 1976, while further discussions with the Corps ensued, a team of EPA scientists completed a field study that supported Regions VI's April 25, 1975 position.

Another Corps review then culminated in a Revised Statement of Findings issued in July 1976, by Colonel Rush, New Orleans District Engineer. Once again, the Corps recommended that the project be completed as originally approved and authorized. Brigadier General Drake Wilson, Deputy Director of Civil Works, concurred with that recommendation by letter to EPA on August 27, 1976. He also advised EPA that the project would proceed unless EPA initiated a 404(c) action within 15 days. EPA continued to press its objections although it did not formally initiate a 404(c) action at that time. General Wilson visited the site in October, 1976, along with representatives of Jefferson Parish, EPA, property owners, representatives of environmental organizations and members of the concerned public.

Then on November 16, 1976 General Wilson reversed his previous decision and directed that the dams at Bayou aux Carpes and Bayou des Familles be removed, that flood gates be installed to be used only during flood conditions, and that the plans to construct the pumping station at Bayou aux Carpes be abandoned. These changes constituted the modified Harvey Canal-Bayou Barataria Levee Project.

B. Litigation

General Wilson's November 16, 1976 decision can be described as an attempt to retain the flood control benefits of the project without the adverse environmental consequences which would result from completion of the levees and subsequent pumping of the site. This was agreeable to the EPA and to the officials of Jefferson Parish. However, this decision directly and/or indirectly precipitated substantial litigation in both state and federal courts by the involved property owners.
In 1977, litigation was initiated in State Court in the matter of Jacques J. Creppel, et al. v. the Parish of Jefferson, et al., resulting in a final judgement enjoining and prohibiting Jefferson Parish from abandoning the project as originally planned. The Court further ordered the Parish to proceed with immediate construction of the pumping station at Bayou aux Carpes as provided in the original Corps project. That judgement was affirmed by the Louisiana 4th Circuit Court of Appeals on May 15, 1980.

In a separate proceeding, also in 1977, the property owners brought an action in federal court against the Corps in an attempt to set aside General Wilson's order of November 16, 1976. Judge Lansing Mitchell upheld General Wilson's order. His ruling in Creppel, et al. v. Corps of Engineers, 500 F. Supp. 1108 (E.D. La. 1980) was appealed to the U.S. Court of Appeals for the Fifth Circuit.

The Fifth Circuit, in a decision dated March 17, 1982, also concluded that General Wilson's November 16, 1976 modification of the project was not arbitrary, Creppel v. U.S. Army Corps of Engineers, 670 F.2d 564 (5th Cir. 1982). However, the Fifth Circuit identified two issues which it felt were unresolved and needed further consideration. Those issues were:

1. Whether or not the required local assurances would be available with respect to the modified project;

2. Whether or not Section 404 of the Clean Water Act might prevent completion of the original project.

The Fifth Circuit remanded the case to Judge Mitchell for resolution of those issues.

In the subsequent proceedings, it developed that (1) Jefferson Parish would not provide local assurances as to the modified project, because it felt it was prohibited from doing so by the state court order referred to above, and (2) that EPA Region VI would not invoke its Section 404(c) procedures with respect to the modified project but, under the same circumstances that existed in 1976, would do so as to the original project.

2/ Local assurances would be required to finance the installation of the flood gates which Brigadier General Wilson had directed be installed.
In August, 1984, Judge Mitchell ruled that the original project should go forward. The Department of Justice filed a Motion to Reconsider this ruling, arguing among other things that it deprived EPA of an opportunity to invoke Section 404(c). At a hearing on September 19, 1984, Judge Mitchell agreed to hold the August ruling in abeyance to give EPA ninety days to consider taking action under Section 404(c) and, if it decided to do so, an additional nine months to complete the process.3/

C. 404(c) Proceedings

In response to Judge Mitchell's ruling, EPA Region VI reviewed available information on the Bayou aux Carpes site, which included a review of Region VI's historical positions on the Marrero-Lafitte Waterline and the Westbank Hurricane Protection Levee, two projects which are not related to the Levee Project but would have resulted in adverse impacts to the site. On October 12, 1984 Region VI also conducted a field trip to the Bayou aux Carpes site in conjunction with the New Orleans District Corps regulatory functions staff and a representative of EPA's Office of Federal Activities to perform investigations and preliminary surveys.

As a result of these, and other activities, and the information derived therefrom, Dick Whittington, EPA's Region VI Regional Administrator initiated the Section 404(c) process by letter of December 17, 1984 to Colonel Eugene Witherspoon, the Corps' New Orleans District Engineer. The landowners were notified of this step simultaneously. Numerous interested parties were notified, including Jefferson Parish, State of Louisiana officials, the Louisiana Congressional delegation, and federal agencies including the National Marine Fisheries Service, the U.S. Fish and Wildlife Service and the National Park Service. As part of the notification process to Jefferson Parish officials, a member of the Parish Council offered to assist in ascertaining owners of the tract in addition to those involved in the litigation. The offer was accepted and the Parish was requested, in December 1984, to identify owners of the tract based on Parish records.

3/ Certain of the landowners have contended that the use of Section 404(c) is illegal here because it would block a flood control project which allegedly the court has held as a matter of law must be completed as originally planned, and because EPA cannot order modification of the project without local assurances. I am not persuaded. First, the district court expressly modified its order to allow EPA an opportunity to exercise its Section 404(c) authority. As the Fifth Circuit has noted, federal projects are subject to the requirements of Section 404 (supra, 670 F.2d at 564), and permission to discharge under Section 404 is subject to EPA's Section 404(c) authority. Second, EPA's Section 404(c) restriction on discharge does not require the completion of the modified project; it merely allows it, assuming requirements under other laws, such as local assurances, are met.
In early January, letters were sent out to Jefferson Parish officials who were responsible for specific areas of the 404(c) tract, such as levees and other rights of way, requesting their permission to go on the tract, inasmuch as EPA was assembling a field team to do a more detailed field investigation. The identification of all of the property owners in the Bayou aux Carpes site proved difficult. However, with the help of Jefferson Parish, a mailing list was compiled including property owners, interested public officials, interested citizens groups and all other known interested groups.

On May 17, 1985, the Region VI Administrator published in the Federal Register a Proposed Determination to prohibit, deny, or restrict the specification, or the use for specification, of the Bayou aux Carpes site as a disposal site. A Proposed Determination means that the Regional Administrator believes there are issues to be explored; it does not represent a conclusion that unacceptable adverse effects will occur, see 44 Federal Register 58082 (October 9, 1979). A public hearing on the Proposed Determination was held in Gretna, Louisiana on June 18, 1985. Copies of draft reports prepared on the Bayou aux Carpes site in conjunction with EPA's 404(c) action were made available prior to the hearing; final copies were made available at the first opportunity. Public participation at the hearing and during the comment period (which ended August 19, 1985) was substantial. The EPA proposal was supported by the National Park Service, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Louisiana Department of Wildlife and Fisheries, the Louisiana Department of Natural Resources, numerous environmental and civic groups, and many citizens with an interest in the area. Those opposing the proposal included some owners of land within the study area and several business organizations promoting the industrial development of the Gulf Intracoastal Waterway (Bayou Barataria frontage). The U.S. Army Corps of Engineers New Orleans District requested that EPA exclude from the 404(c) Final Determination an area within the Bayou aux Carpes site for the disposal of dredged material from the federal dredging of the Gulf Intracoastal Waterway (Bayou Barataria); however, they also advised that that segment of the waterway has never been dredged since the initial construction, and that the segment is not expected to require maintenance in the near future.

The public hearing comment period was extended through August 5, 1985 to allow additional time for the public, including the property owners, to review and comment on EPA's final reports on Bayou aux Carpes. On the day that the public hearing was held, an application which was jointly entered into by EPA Region VI and some of the property owners, was filed with Judge Mitchell, requesting that he extend the nine month deadline for completion of the 404(c) process an additional 120 days. In the face of opposition by other property owners, Judge Mitchell extended the deadline only 30 days to October 18, 1985. Following the Judge's ruling, Region VI extended the comment period for the public hearing an additional two weeks to August 19, 1985. This extension of the comment period was announced in the Federal Register on July 19, 1985.
After the close of the comment period, the Regional Administrator submitted to me a Recommended Determination, as well as the administrative record compiled by the Region, to restrict specification of the Bayou aux Carpes site for the discharge of fill material. This determination is based on findings that show that the proposed discharge, as well as future discharges, will have unacceptable adverse effects on shellfish beds, fishery areas (including spawning and breeding areas) wildlife and recreational areas. The Recommended Determination is dated August 30, 1985 and was received at EPA Headquarters on September 4, 1985.

EPA subsequently notified involved property owners by letters dated September 13, 1985 and September 16, 1985, the Southern Natural Gas Pipeline Company, which owns a pipeline that crosses the site, by letter dated September 13, 1985 and Major General H.J. Hatch, Director of Civil Works, Corps of Engineers, by letter dated September 13, 1985 of the Recommended Determination and of their opportunity for consultation in compliance with the Section 404(c) regulations.

In response to this notification, EPA received letters dated October 1, 1985 from Mr. Joseph E. LeBlanc, Jr., September 24, 1985 from Mr. Harold L. Molaison, and September 25, 1985 from Mr. Daniel L. Morrow, three attorneys who represent property owners within the Bayou aux Carpes site. Their letters maintained the position presented in a previous letter written by Mr. LeBlanc dated August 19, 1985 which questioned the legality of EPA's 404(c) action. They did not request a meeting. EPA also received a letter dated October 1, 1985 from the Director of Civil Works, Corps of Engineers which reiterated the request of the New Orleans District Engineer for EPA to exclude an area within the Bayou aux Carpes site from the 404(c) Final Determination for dredged material disposal. The letter from the Director of Civil Works did not request a meeting to discuss this issue. The Southern Natural Gas Pipeline Company, in a letter dated September 25, 1985, advised EPA of its pipeline maintenance requirements that would necessitate depositing dredged or fill material within the Bayou aux Carpes site.
III. Description of the Site

The Bayou aux Carpes site is located approximately 10 miles south of New Orleans, Louisiana, on the "West Bank" of Jefferson Parish. The site covers approximately 3200 acres and approximately 3000 acres is wetlands as defined in 40 CFR 230.3(t). The remainder of the site consists of land classified as old orchard, residential, agricultural, industrial, wooded upland, and grassland associated with levees and roads and is not included in EPA's 404(c) determination. The site is bounded on the north by the east-west Estelle Pumping Station Outfall Canal, on the east by the Plaquemine-Jefferson Parish line and Bayou Barataria (Intracoastal Waterway), on the south by Bayou Barataria and Bayou des Familles and on the west by State Highway 3134 and the "Vee-Levee" Pipeline Canal (refer to attachments A and B). The geographic coordinates are:

Range 23 East, Township 15 South, Portions of Sections 13, 14, 55, 57, 59;
Range 23 East, Township 14 South, Portions of Sections 55, 81, 82; and
Range 24 East, Township 15 South, Portions of Sections 48, 49, 50, 57.

Vegetative characteristics and habitat types were identified through on-site field visits by EPA, the U.S. Fish and Wildlife Service (FWS) and by interpretation of color infrared aerial photography. The Bayou aux Carpes site contained approximately 2190 acres of bottomland hardwoods, wooded swamps and scrub-shrub wetlands and approximately 648 acres of fresh marshes, pond and open waterways. Bald cypress (Taxodium distichum), tupelo gum (Nyssa aquatica) red maple (Acer rubrum) and green ash (Fraxinus pennsylvanica) are common overstory vegetation in the bottomland hardwood, wooded swamp and scrub-shrub areas with bald cypress and tupelo gum being the most predominant. In the scrub-shrub wetlands, the predominant shrub species are wax myrtle (Myrica spp.), buttonbush (Cephalanthus occidentales) and eastern baccharis (Baccharis spp.). In the fresh marshes, the predominant species include bulltongue (Sagittaria falcata), softstem bulrush (Scirpus validus), pennywort (Hydrocotyle bonariensis), iris (Iris giganticaerulea), smartweed (Polygonum spp.), spikerush (Eleocharis spp.) and alligator weed (Alternanthera philoxeroides). Water hyacinth (Eichhornia crassipes), and duckweed (Lemma spp.) characterize the floating vegetation of the open waterways within the site.

The entire perimeter of the Bayou aux Carpes site is spanned by levees except for the confluence of the Southern Natural Gas Pipeline canal with Bayou Barataria. The two mile long Southern Natural Gas Pipeline canal provides the primary hydrological connection between the site and Bayou Barataria (Intracoastal Waterway) and ultimately, Barataria Bay. Other major waterways within the Bayou aux Carpes site include two oil field location canals off of Bayou aux Carpes (approximately 2500 and 6000 feet long), a 3500 foot long powerline right-of-way canal connected to one of...
the oil field location canals, and two plugged oil field location canals (1500 and 2000 feet long) off of Bayou Barataria. The Southern Natural Gas Pipeline Canal is directly connected to all of the aforementioned waterbodies except the two plugged canals off of Bayou Barataria. Dredged material was deposited along the banks of these canals during their construction. However, the dredged material levees have numerous breaks and are no more than a few feet above adjacent wetland elevations and do not completely block surface water flow across the site.

In addition to the relatively flat topography of the site, numerous breaks in the dredged material levees and the unfilled area at the head of the Southern Natural Gas Pipeline canal provide a pathway for surface water to exchange between the canals and surrounding swamps and marshes. Remnants of the original Bayou aux Carpes waterway are unveleed, thus allowing surface water to sheet flow across to the adjoining wetlands. Studies conducted by EPA revealed that during 1984, water levels in the Barataria Waterway exceeded the average swamp/marsh substrate elevation of 1.24 feet National Geodetic Vertical Datum (NVGD) at least 50 percent of the time. Marsh-swamp elevations of 0.44 and 1.65 feet NGVD, which represent the range of elevations in the site, were exceeded 95% and 20% of the time, respectively, by water levels in the waterway during the EPA study in 1984. The frequency at which water levels equaled or exceeded 1.24 feet NGVD were most pronounced during the period from May through October 1984 and appeared as a response to southerly wind directions. During 1984, the average annual water level in Bayou Barataria was 10 to 14 percent below the 20-year mean; hence the potential for the flooding of the Bayou aux Carpes site may be greater than that observed during the study. A diurnal tide range of 0.3 to 0.4 feet was recorded in the Bayou aux Carpes site during the study. This range appears typical of the upper basin region of the Barataria Bay system and is further evidence of the close hydrologic relationship of the site with the rest of the system, in spite of the partially completed flood control project.

The Bayou aux Carpes site is bordered on the west by 600 acres of the Barataria Unit of Jean Lafitte National Historical Park. This portion of the park is hydrologically connected to the Bayou aux Carpes site via four sets of culverts under State Highway 3134. The Barataria Unit contains approximately 500 acres of bottomland hardwood wetlands.
IV. Ecological Values Associated With The Site

The record, including biological and hydrological studies of the Bayou aux Carpes site conducted by EPA and FWS, demonstrates that the site is a viable and valuable functioning component of the Barataria Bay and estuarine system. Despite existing alterations, which include the levee spanning its perimeter and canals with associated dredged material levees, the Bayou aux Carpes site contributes organic material for the nutritional needs of fish and shellfish communities in the adjacent estuary, provides valuable habitat for fish and wildlife, acts as a pollutant filtering mechanism helping to reduce degradation of water quality in adjacent waters, and provides opportunities for public recreation.

A. Contribution to Barataria Bay Estuary

The Bayou aux Carpes site is comprised of bottomland hardwoods, wooded swamps, scrub shrub wetlands, fresh marshes, as well as open waterways. The amount of plant biomass produced in the study area may be compared to that measured in nearby sites exhibiting similar species composition. Conner and Day (1976) reported total primary production for several types of seasonally flooded Louisiana swamps. They arrived at values of 1,574 g/M²/yr at a bottomland hardwood site and 1,140 g/M²/yr at a cypress-tupelo site. Given the similarities between the Bayou aux Carpes site and these study sites, it is reasonable to conclude that comparable levels of plant biomass are produced at the Bayou aux Carpes site.

Production of plant biomass with resultant decomposition results in the production of carbon and nitrogen which serve as nutrients. EPA field and laboratory studies confirmed that the Bayou aux Carpes study area is a source of organic carbon and nitrogen to Bayou Barataria, leading to Barataria Bay. Nutrient exchange measurements and dye tracer studies verified the export mechanism. During the study period, water transport from Bayou aux Carpes to Bayou Barataria was rapid and directed towards Barataria Bay. Traced waters leaving the Bayou aux Carpes study area via the Southern Natural Gas Pipeline canal traveled downstream in Bayou Barataria a distance of six miles in less than 24 hours.

This plant biomass is significant because it serves both as an important direct food source for numerous species of fish and wildlife that live on or visit the project site, and as a source of detritus (i.e., plant and animal material undergoing various stages of decay by the action of bacteria and fungi). Detrital materials are consumed by fishes and invertebrates and thereby contribute to the downstream estuarine food webs. By this mechanism, recreational and commercial fish and shellfish resources are supported.

B. Fishery Values

EPA conducted aquatic sampling in January 1985 in the Bayou aux Carpes site within the canals, as well as in the adjacent marshes and wooded swamps. FWS sampled primarily the canals within the site during April 1985.
Aquatic sampling conducted by EPA and FWS revealed the presence of several fish species that tolerate both fresh and brackish environments. Observations of bay anchovy, striped mullet, threadfin shad, tidewater silverside and blue crab provide recent evidence of ingress and egress of estuarine organisms. In addition, data from Day (1984) and EPA's sampling in 1985 revealed at least 15 species of fresh water fishes associated with the Bayou aux Carpes site. Many of these species, such as channel and blue catfish, sunfish and bass are recognized as important to both commercial and sport fisheries. In addition to fish, field sampling yielded 14 taxa of macroinvertebrates from stations in the canals and Bayou aux Carpes waterway and 27 taxa of macroinvertebrates from the marsh and swamp areas. Species such as the blue crab and adult red swamp crawfish are of direct commercial value. Juvenile forms of grass shrimp, crawfish, blue crabs and bay anchovies were observed during sampling within the Bayou aux Carpes site which indicates that it is used as nursery habitat by these species.

The Bayou aux Carpes site exhibits several trophic levels (that is, several steps in the food web). For example, in addition to the available emergent and floating vegetation in the open waterways and on the marsh surface, the site contains juvenile crawfish, grass shrimp and amphipods that consume detritus. These are, in turn, used as fish food items by the aforementioned sport and commercial species.

C. Wildlife Values

The U.S. Fish and Wildlife Service (FWS) conducted a study and prepared a Habitat Evaluation Procedure (HEP) report that covered the Bayou aux Carpes site and the adjacent Barataria Unit of the Jean Lafitte National Historical Park. As noted above, these areas are hydrologically connected and both contain bottomland hardwood wetlands (The Bayou aux Carpes site also contains scrub-shrub wetlands and fresh marshes). The HEP, which is a standard procedure used by the FWS, is based on the assumption that vegetative communities have value to wildlife and that positive or negative impacts can be expressed in terms of modification (both quantity and quality) to wildlife habitat. These impacts can be measured and compared. Additionally, optimum habitat for a certain species can be characterized and any habitat can be compared to the optimum to develop a Habitat Suitability Index (HSI). There is an assumed linear relationship between the HSI and the carrying capacity of a habitat. The HSI for a particular species is determined by utilizing models which contain measurable key habitat components for a specific animal in a particular habitat. An HSI value of 0 indicates that a cover type provides little or no potential habitat for the evaluation species, whereas a value of 1.0 indicates that the habitat provides optimum life requisites in the form of food, cover, and/or reproduction.
The wildlife species selected for evaluation by the FWS for its report in this case, included the gray squirrel, pileated woodpecker, North American mink, wood duck, great egret, American alligator and the common muskrat. These are species associated with wetland systems like those within the Bayou aux Carpes site and are representative of a broad array of community positions (e.g. trophic levels, habitat requirements, taxonomic groupings), and provide recreational, commercial, and aesthetic values.

The results of the HEP analysis indicated that the bottomland hardwoods and wooded swamps of the Bayou aux Carpes site and the Barataria Unit of the adjacent park, as well as the scrub-shrub wetlands and fresh marshes of Bayou aux Carpes site are high value habitat for the evaluated species, with the exception of the muskrat; the HEP analysis revealed that the site is of moderate value for the habitat requirements of this species.

The FWS field studies revealed that the site provides valuable habitat for a diversity of wildlife species. The marshlands and forested wetlands provide feeding, resting, nesting, and escape habitat to numerous species of game and nongame mammals and commercially important furbearers, songbirds, raptors, migratory and resident waterfowl, wading birds, woodpeckers, other birds, and many species of amphibians and reptiles. During the field studies conducted by EPA and FWS, at least 70 species were observed in the Bayou aux Carpes site, including nine species of amphibians, 10 species of reptiles, 45 species of birds, and six species of mammals. Observations included the American alligator which FWS has listed on the threatened species list in Louisiana. Of those species observed, the wood duck and the osprey are considered by FWS to be National Species of Special Emphasis. FWS is monitoring these species because of their declining populations due to factors which include habitat loss. The endangered bald eagle is known to nest in the general vicinity of the Bayou aux Carpes site. At least three bald eagle nests have been documented within a 10 mile radius of this area by FWS (1984).

D. Water Retention and Pollution Filtering Values

Studies conducted by EPA scientists indicate that the relatively flat topography of the Bayou aux Carpes site, in combination with the low and/or broken levees, enhances the capacity of the site to detain surface waters and affect a slow release to downstream systems. The water storage capacity of the site was confirmed by measuring the cyclic chloride concentrations of swamp water discharged to Bayou Barataria and by monitoring a dye tracer. Chloride concentrations, measured at the junction of Southern Natural Gas Pipeline canal and Bayou Barataria, increased with ebb flows from the Bayou aux Carpes site and decreased when the direction of flow reversed and originated from Bayou Barataria (flood tide). This means that the water draining from the site was more saline. This salinity would logically be derived during the summer and fall periods when water is pushed up into this vicinity of Bayou Barataria by winds and tides. The salt content shows up in the standing water in the marsh.
The storage capacity is significant for the purposes of 404(c) because the site is absorbing pollutants and excess nutrients from stored waters. Water which is frequently introduced into the study area from Bayou Barataria contains urban runoff from the surrounding areas. EPA analyses and comparison of heavy metal content of sediments samples obtained from the Bayou aux Carpes site and Bayou Barataria revealed that the canals and swamp-marsh habitat trap finely divided particles and the associated heavy metals. Copper, lead, and iron concentrations appear uniformly distributed between the swamp, marsh, canal, and Bayou Barataria indicating the capacity of the marsh/swamp system to trap these heavy metals typically associated with urban runoff. Bayou Barataria appeared to retain greater concentrations of zinc compared to the Bayou aux Carpes swamp and marsh areas. EPA analysis did not reveal the reason for this. It may be that the particles to which zinc is bound are too heavy to remain in suspension long enough to be carried into the Bayou aux Carps site.

The biological cycling of inorganic nitrogen (NO₂-NO₃) was evident in the Bayou aux Carpes swamp. The NO₂-NO₃ concentration gradient decreased from sampling points in Bayou Barataria to stations in the forested swamp and marshes. Thus, Bayou Barataria appears to be a source of NO₂-NO₃ and the Bayou aux Carpes swamp an area for its assimilation into other nitrogen forms such as animal or plant protein. Both the nutrient assimilation and pollutant trapping help maintain water quality which benefits the associated aquatic life.

E. Recreation Values

Recreational opportunities such as boating, fishing, trapping, and some hunting (with permission from private property owners) are available within the bounds of the Bayou aux Carpes site. The public currently has access to portions of the tract by way of the Southern Natural Gas Pipeline canal that connects Bayou Barataria with the water courses within the site.

F. Conclusion

Under Section 404(c), a finding of unacceptable adverse effects must be based on effects on one or more of the listed resources, that is, municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, and recreational areas. Based on the records and the preceding discussion, I conclude that the Bayou aux Carpes site has significant value for all these resources except municipal water supplies. The next section discusses the likely impact on these values if Bayou aux Carpes is used as a disposal site for dredged or fill material.
V. Unacceptable Adverse Impacts

As discussed above, exercise of my authority under Section 404(c) to restrict or prohibit the use of a site for disposal of dredged or fill material must be based on a finding of "unacceptable adverse impact" to one or more of the listed resources. EPA's regulations define unacceptable adverse effect to mean, in pertinent part, "significant loss of or damage to fisheries, shellfishing or wildlife habitat or recreation areas." 33 CFR §231.2(e). As the preamble explains, Section 404(c) determinations are by their nature based on predictions of future impacts; therefore, what is required is a finding of reasonable likelihood that unacceptable adverse effects will occur, not absolute certainty. (44 Fed. Reg. 58078, Oct. 9, 1979).

In evaluating the projected impacts on the relevant resources in this case, EPA studied information available from: previous studies of the area associated with various public and private project proposals; recent studies conducted in association with this determination; coordination with other agencies; comments received from the public, including affected landowners; and considered the relevant portion of the Section 404(b)(1) Guidelines, in this case 40 CFR §230.10(c). The following specific adverse impacts are likely to result from the proposed discharge of fill material to close tidal waterways and facilitate the installation of a pumping station to drain the site or from the discharge of dredged or fill material within the Bayou aux Carpes site.

A. Impacts to Shellfish Beds and Fishery Areas

As reported by the Department of Commerce (USDC, 1980), Louisiana is the third ranking state in fisheries employment and the state's estuarine system produces 28 percent of the nation's fishery harvest. Studies by Craig and Day (1977) and EPA indicate that the Barataria Basin is responsible for a large, if not the largest, share of Louisiana's total commercial fishery harvest. The National Marine Fisheries Service, utilizing commercial catch data from 1953 through 1978, calculated the average annual commercial harvest directly attributable to Barataria Basin. This annual harvest, which includes menhaden, shrimp, oysters, croaker, blue crab, sea trout, spot and red drum is approximately 302.7 million pounds at a value of approximately 83 million dollars. Adult and juvenile forms of the blue crab were observed in the Bayou aux Carpes site. Menhaden, shrimp and oysters directly consume the detritus produced and exported from the site.

Completion of the Levee Project would ultimately eliminate the export of detritus and nutrients to the downstream estuary and subsequent filling or other land conversion activities within the Bayou aux Carpes site would serve to accelerate this result. Therefore completion of the project would eventually eliminate the export of swamp-marsh production that constitutes a necessary component of the estuarine food web and, thereby, have an unacceptable adverse impact to shellfish and fishery areas. Filling the Bayou aux Carpes site without completion of the project would also eliminate such exports.
Studies conducted by EPA and FWS revealed that the Bayou aux Carpes site provides foraging and nursery habitat for fresh and estuarine species, many of which are of recreational and commercial importance including: channel and blue catfish, sunfish, bass, blue crab and red swamp crawfish. In addition, the studies revealed the presence of forage fish, juvenile crawfish, grass shrimp and other amphipods that break down detritus and are utilized as a food source by the commercial and sport species mentioned above. Completion of the Levee Project would eliminate access to, as well as the fishery values of the Bayou aux Carpes site; filling the site would have a similar effect. For all these reasons, completion of the Levee Project and/or filling in the Bayou aux Carpes site would have an unacceptable adverse effect on shellfish beds and fisheries areas.

B. Impacts to Wildlife Values

The projection of future conditions, prepared by FWS as part of the HEP analysis, indicated that with the completion of the Levee Project, all of the evaluation species would show loss of available habitat and that, if the site were subsequently filled and developed, it would lose virtually all of its current wildlife value.

Completion of the Levee Project will adversely affect the habitat of the American alligator, which is threatened in the state of Louisiana, the osprey and the wood duck, which are National Species of Special Emphasis, commercially important furbearers, and game animals. Completion of the project and subsequent draining and filling will have an unacceptable adverse impact on wildlife values.

C. Impacts to Water Retention and Pollution Filtering Values

Hopkins and Day (1979) found that Lake Cataouatche and, to a lesser extent, Lake Salvador have already begun to experience the effect of an altered hydrological regime. These lakes in the Barataria Basin used to be a prime nursery ground for Louisiana commercial fisheries, but now drainage canals from the West Bank of New Orleans bypass the swamps and enter directly into the lakes. High nutrient loads from the West Bank have caused Lake Cataouatche to become eutrophic and fish kills after large rainstorms are indicative of the impact of the changes in the natural hydrology of this area. The Barataria Waterway also allows urban runoff to flow unhindered to the upper part of Barataria Bay. While the total contribution of Bayou aux Carpes site for filtering pollutants has not been measured, it is certain that the adjacent waters of Bayou Barataria and the Barataria Bay estuary, as well as the associated fish and shellfish, will receive higher levels of pollutants and heavy metals from urban runoff and other sources, if the site is isolated by completing the Levee Project or if it is filled. This will contribute to the unacceptable adverse effect to fish and shellfish discussed above, in section A.
D. Impacts to Recreation

The potential for adverse effects upon recreation (primarily from the potential loss of sport fishing and hunting opportunities) within the site has generated a high level of public concern throughout the public hearing comment period.

Completion of the Levee Project will block public access to the site. Draining the site via the proposed pump will eliminate the fisheries community and, in conjunction with future filling and other land reclamation activities, eventually eliminate the available wildlife habitat. Recreation, in the form of hunting and fishing, will be eliminated within the Bayou aux Carpes site.

E. Impacts to the Barataria Unit of the Jean Lafitte National Historical Park

The Barataria Unit of the Jean Lafitte National Historical Park lies immediately west of the Bayou aux Carpes site and a 600 acre section lies within the same drainage basin as the Bayou aux Carpes site. There is a direct hydrological connection, via four sets of culverts under State Highway 3134; this area of the park is comprised of approximately 500 acres of bottomland hardwoods and wooded swamp. The FWS HEP analysis revealed that the wetlands of the Barataria Unit are of high value for the representative species selected. On site observations included the bald eagle, which has been listed by FWS on the endangered species list. In addition, there is a great egret and great blue heron nesting colony located in the wooded swamp within this section of the National Park. The fish species collected in the Bayou aux Carpes site were the same as those collected by FWS in the Barataria Unit in September 1984, with the exception of six species that were collected only in the park and two species that were collected only in the Bayou aux Carpes. This portion of the National Park and the Bayou aux Carpes site represent, in form and in function, two interconnected segments of one wetland system.

The Barataria Unit is open to the public for fishing. In addition, the Park Service has placed an emphasis on this area as an educational resource. An interpretative walkway traverses typical bottomland hardwoods wetlands, then enters a cypress-tupelo swamp. The trail receives high visitor use and is a major tool in the park's education program. Therefore, this unit of the National Park provides recreation opportunities in addition to the aforementioned ecological values.

The hydrological relationship between the Barataria Unit and Bayou aux Carpes site is such that attempts to drain or significantly alter the hydrology of the site would result in adverse hydrological alterations within the Barataria Unit of the park. A study of the effects that draining of the Bayou aux Carpes site would have on the park was conducted by John W. Day, Jr., of the Louisiana State University Center for Wetland Resources. Dr. Day concluded
that as long as the surface water connection remains functional, the forced drainage of the Bayou aux Carpes swamp would result in drainage of much of the area within the park. This would ultimately result in vegetative transition to upland species with loss of productivity, detrital export, existing fish and wildlife habitat and the attendant recreational opportunities.

Alternative means of preserving the wetland values of the park if the study area was placed under pump would include placing control structures at the highway culverts and implementing an intensive water management plan. Although the control structures might initially slow the rate of ecological transformation due to draining, EPA feels that the success of constantly maintaining flooded conditions is questionable and may eventually lead to the deterioration of the wooded swamp and bottomland hardwood communities. Attempts to reproduce natural hydrological cycles through extensive water management would be expensive, involving major alterations in order to pump water into the area and then drain it out again.

Completion of the Levee Project or any other fill proposals which would have the effect of draining, drying, or hydrologically isolating the Bayou aux Carpes site would result in adverse impacts to fisheries areas, wildlife areas and recreation associated with the Barataria Unit of the Jean Lafitte National Historical Park.

F. Cumulative Impacts

The significance of impacts associated with completing the Levee Project and eliminating the ecological contribution of the Bayou aux Carpes site are even greater when considered within the context of wetland alterations within the Barataria Basin and coastal Louisiana.

A report to the Louisiana Joint Legislative Committee on Natural Resources, stated that over the last 80 years, over 800,000 acres of land in coastal Louisiana have been lost. Approximately 58 percent of this has occurred over the past 25 years. Recent losses of forested wetlands in the state are on the order of 87,200 acres annually (U.S. FWS, March 1984; Dozier et al.; and Gagliano, 1981). These losses affect not only biological, water quality, recreational, and flood protection benefits but also economic values of the wetlands because of the significance to Louisiana's coastal fishery. The causes cited for these wetland losses include such natural phenomena as coastal subsidence and compaction, erosion, and sea level rise, and such anthropogenic causes as channelization, levee construction, canal dredging, subsidence due to mineral extraction, agricultural expansion, and urban expansion. This is significant for two reasons. First, some causes of wetland losses are natural and, therefore,
not subject to jurisdiction under Section 404 of the Clean Water Act. Second, while natural phenomena are causing wetland losses from seaward, man's activities are threatening wetlands from the landward side. It has been predicted, in a report by the Department of Commerce that "if the present draining and filling operations for urban and commercial development in the coastal area continue at the current rate, an additional 186,000 acres of the state's wetlands will be lost by the year 2000" (USDC, 1980).

The same types of activities causing significant statewide coastal wetland losses are also reported by the Department of Interior as major influences in the Barataria Basin (USFWS, 1983). The Louisiana Department of Transportation and Development (LDTO, 1976) has calculated the total loss of Barataria Basin wetlands as being 44,300 acres by 1970. The upper Barataria Basin wetlands are increasingly being ringed by urban development. This can be seen along the Bayou des Familles ridge to the northwest of the Estelle Pumping Station Outfall Canal. Also, the effects of pumping upon habitat similar to that of the study area may be seen immediately west of that canal. The Bayou aux Carpes site represents a notable portion, roughly four percent of the periodically flooded marsh and swamp area in the Barataria Basin; and would, therefore, represent a sizeable loss to this area.

G. Proposed Corrective Measure

Counsel for some of the landowners proposed, as a corrective measure to eliminate the likelihood or unacceptable adverse effects, that the Park Service purchase a portion of the tract and that the pumping station be relocated to the pipeline canal. In my judgement this proposal would not materially reduce the significant adverse effects of the project, even if the Park Service were in a position to implement it. In any case, the Service has indicated that it does not have an interest in acquiring this land at this time.

Neither during the Regional 404(c) consultation period and public comment period nor during EPA headquarters' consultation period did any of the landowners or their representatives identify any desired property uses or specific projects which would involve less significant filling within the Bayou aux Carpes site and, therefore, could possibly be exempted from the general prohibition on discharge. However, the Southern Natural Gas Pipeline Company by letter dated September 25, 1985 indicated that routine maintenance of their pipeline would require some discharges of dredged or fill material but that it could be done so as to have minimal environmental effects. We agree and our final 404(c) determination recognizes this exception.
VI. A Discussion of the Report Prepared by Steimle and Associates, Inc. on Behalf of the Property Owners

The technical material submitted on behalf of the property owners to the record in opposition to EPA's studies of the Bayou aux Carpes site consisted of a report entitled "Review of CWA 404(c) Related Studies in the Bayou aux Carpes Area" prepared by Steimle and Associates, Inc. in August 1985. The report and EPA's analysis of same have been made part of the record on this case. This section provides a discussion of my findings regarding the main points of the report.

Steimle and Associates reviewed the assessment of the Bayou aux Carpes site performed by Region IV, Environmental Services Division in Athens, Georgia. Their report states that the sampling effort was restricted to a small segment of the site and that the duration of sampling was not sufficient to develop seasonal conclusions. In addition, the report states that the storage/detention of surface water is not supported by the study results; specifically, the Steimle report compared the water level recorder readings between the site and Bayou Barataria after a rain event and concluded that their similarity contradicted the idea that the Bayou aux Carpes site stores water.

Steimle and Associates is correct in that sampling was performed primarily in and adjacent to the major watercourses within the site. The data obtained, however, was accurate and the resultant observations and/or conclusions were not expanded to include unsampled areas. EPA feels that the literature research performed in conjunction with the assessment, as well as other site specific studies, such as the HEP analysis performed by FWS, provide information on segments of the site not directly sampled by Region IV such that the ecological values of the entire site may be ascertained.

EPA agrees that the duration of sampling was too short to support seasonal conclusions in the absence of other data. However, conclusions regarding seasonal characteristics, such as the frequency of tidal inundation, were reached by combining and comparing onsite results with the review of seasonal records and available scientific literature.

The comparison of water level recorder readings referred to by Steimle and Associates is misleading because the recorder in the Bayou aux Carpes site is located within one of the canals which is hydrologically connected to Bayou Barataria and would, therefore, react in a similar fashion to Bayou Barataria to hydrological changes. EPA believes that the study data do support the conclusion that water is stored by the Bayou aux Carpes site. The measurement of cyclic chloride concentrations confirmed that the site stores water. In addition, a diurnal tidal range of .3 to .4 feet was recorded at the site during EPA's study. This value, when added to the average marsh-swamp surface elevation of the swamp resulted in an average water level elevation of 1.54 feet NGVD. This elevation was above the maximum water level height recorded in Bayou Barataria and study canals indicating that the site was storing additional water.
Steimle and Associates also reviewed the HEP analysis conducted by FWS. The report stated the view that the HEP is based upon two assumptions that are untrue in nature; that is: (1) that there is a linear relationship between the HSI value and the number of a species that a given type of habitat can support and; (2) that all of the members of the species are going to be evenly distributed in a given habitat.

The HEP is a means by which different habitats may be compared (regarding their value to a certain wildlife species) by comparing each against a model. These procedures are a basis for comparison and do not provide absolute wildlife support information for a specific area. The two above assumptions are made to provide a qualitative basis of habitat comparison; for example, an area with an HSI of 1.00 is more valuable than an area with an HSI of 0.50 for the same wildlife species and, if two areas have the same HSI for a particular species, it is assumed that the larger area can accommodate a larger population of that species. The HEP is a standard methodology used by FWS and provides a reasonable basis for evaluating the wildlife values of the site.

Steimle and Associates also reviewed the report by Dr. Day which addressed the impacts of the Levee Project on the Barataria Unit of Jean Lafitte National Historical Park. They conclude that Dr. Day's report is general and lacks site specific data. They also state that this report dismisses the concept of water level management rather than providing a plan that could be evaluated.

The data obtained by EPA on the hydrological connection between Bayou aux Carpes and the Barataria Unit indicates that completing the Levee Project and pumping and draining the Bayou aux Carpes site will ultimately drain the Barataria Unit of the National Park. Information in the record on the ecology of this site reveals the resources that will ultimately be lost. EPA believes that, while a water management plan may be feasible from an engineering standpoint, it may still result in vegetative changes within the Barataria Unit and subsequent changes in values. Therefore it is reasonable to conclude that using the Bayou aux Carpes site for disposal will adversely affect the values of the historic park. These values include fish and wildlife habitat, as well as recreation.

In summary, the report done by Steimle and Associates fails to raise substantive issues that would cause reconsideration of the conclusions within the three aforementioned reports.
VII. Restriction on Use of the Bayou aux Carpes Site
for Specification as a Disposal Site

Section 404(c) authorizes EPA to impose different limitations on discharges through actions on disposal site specifications. Where the facts warrant, I may recommend that any defined area be prohibited from specification as a disposal site pursuant to Sections 404(a) and (b). If I should determine that the discharge of certain materials will have significantly less damaging effects than others, or that limiting discharges by amount, method, and/or location will reduce the likelihood of unacceptable adverse effects, I may recommend that the use of a specified site merely be restricted in some manner and/or that the restriction or prohibition apply to only a portion of the area under consideration.

In the present case, my finding of unacceptable adverse effects stems from the direct and indirect effects of discharges regulated under Section 404 of the Clean Water Act and within the Bayou aux Carpes site. Accordingly, I have decided to restrict the use of the Bayou aux Carpes site for any discharges of dredged or fill material, including those associated with the original Harvey Canal-Bayou Barataria Levee Project, with three exceptions. The first exception is discharges associated with completion of the modified Harvey Canal-Bayou Barataria Levee Project, as described in the Wilson Order of November 16, 1976; on condition that the closure at the confluence of Bayou aux Carpes and Bayou Barataria be replaced by floodgates. By retaining the current hydrologic regime except during storms, the modified project will largely maintain the current values of the site. The second exception is discharges associated with routine operation and maintenance of the Southern Natural Gas Pipeline Company pipeline as long as dredged or fill material is placed in piles with breaks in between to allow sheet flow to adjacent wetlands and as long as pre-maintenance contours are restored. The third exception is discharges associated with projects with the sole purpose of habitat enhancement and specifically approved by EPA. I believe that these three types of activities are unlikely to result in significant adverse effects to the aquatic environment as long as they are performed in accordance with these restrictions as well as any permit conditions which may be imposed by the Corps of Engineers through the permit process.

I have decided not to make a fourth exception for a disposal site for dredged material resulting from dredging in Bayou Barataria as requested by the Corps of Engineers since the disposal of dredged material within the Bayou aux Carpes site would result in the loss of a significant area and contribute to the unacceptable adverse effects discussed above. I note that there is no ongoing maintenance dredging in the Bayou and none is planned for the foreseeable future, so this should not create any
hardship. Even if circumstances should change, today's decision would permit dredged material to be used in completing and maintaining the modified Levee Project described in the Wilson Order.

Should the landowners in the future identify any other specific activities which require some discharge of dredged or fill material and which would have only minor impacts, they may, of course, apply to EPA for reconsideration of today's decision with respect to those particular activities. However, based on the current record, only the three specifically identified exceptions to my restriction are justified.

[Signature]

OCT 16 1985

Assistant Administrator
for Office of External Affairs
U.S. Environmental Protection Agency
Proposed Determination To Prohibit, Deny, or Restrict the Specification, or the Use for Specification, of an Area as a Disposal Site; Notice and Public Hearing

SUMMARY: Section 404(c) of the Clean Water Act (33 U.S.C. 1251 et seq) provides that the Administrator of the U.S. Environmental Protection Agency (EPA) is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearing, that the discharge of dredged or fill materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreation areas. The procedures for implementation of 404(c) are set forth in 40 CFR Part 231. This notice of the proposed determination and public hearing is being published in accordance with 40 CFR 231.3 by the Regional Administrator of EPA’s Region 6.

On December 18, 1984, EPA Region 6 notified the U.S. Army Corps of Engineers, and subsequently notified affected landowners, of our intention to prohibit an area known as the Bayou aux Carpes swamp from future use as a disposal site under section 404(c) of the Clean Water Act (CWA). The approximately 3,000 acre site lies south of New Orleans, Louisiana, on the "West Bank" of Jefferson Parish. The area is bounded on the north by the east-west Estelle Pumping Station Outfall Canal, on the east by the Plaquemines-Jefferson Parish line, on the south by Bayou Barataria and Bayou des Familles, and on the west by State Highway La. 3134 and the "Vee-Levee" pipeline canal. Maps of the project area are available at the above address. The geographic coordinates are:

Range 23E, Township 15S, Portions of Sections 13, 14, 55, 57, 59;  
Range 24E, Township 14S, Portions of Sections 55, 61, 62; and  
Range 24E, Township 15S, Portions of Sections 48, 49, 50, 52, 57.

Purpose of Public Notice

EPA would like to obtain comments on this proposed determination, which could result in the denial of any future applications for Section 404 (CWA) permits for the discharge of dredged or fill material in wetlands within the area in question. We are also soliciting comments on whether or not the impacts of any such proposed disposal operations would represent an unacceptable adverse effect as described in Section 404(c) of the Clean Water Act.

Public Hearing

A public hearing will be conducted on June 18, 1985, beginning at 7:30 p.m. in the Council Chambers of the Gretna Courthouse, located at Second Avenue and Derbigny Street in Gretna, Louisiana. Written comments may be submitted prior to the hearing. Both written and oral comments may be presented during the hearing. The hearing record will remain open for the submittal of written comments until the close of business on July 3, 1985, or possibly a later date announced at the hearing. Comments submitted prior to or after the hearing should be sent to the Environmental Protection Agency, Federal Activities Branch, 1201 Elm Street, Dallas, Texas 75270. All comments should directly address whether the proposed determination should become the final determination. These comments will be considered in reaching a decision to either withdraw the proposed determination or prepare a recommended determination to prohibit or deny the specification or the use for specification of the area as a disposal site. If a recommended determination is made, it and the administrative record will be forwarded to the Administrator of EPA in Washington, DC, for review and the final determination. The procedures to be used by the Administrator in making the final determination are specified in 40 CFR 231.6.

Copies of all comments submitted in response to this notice will be available for public inspection from 8:00 a.m. to 4:00 p.m. weekdays at the EPA address above.

The Regional Administrator of EPA’s Region 6, or his designee, will be the Presiding Officer at the hearing. Any person may appear at the hearing and present oral or written statements, and may be represented by counsel or other authorized representative. The Presiding Officer will establish reasonable limits on the nature and length of the oral presentations. No cross-examination of any hearing participant will be permitted, although the Presiding Officer may make appropriate inquiries of any such participant.

Background

EPA is taking this action according to the provisions of section 404(c) of the Clean Water Act. Although the U.S. Army Corps of Engineers actually issues the section 404 permits, EPA also has certain responsibilities regarding this program. EPA is responsible for developing the guidelines to be used by the Corps in reviewing the permit applications. The agency also reviews and provides comments to the Corps during their review of the applications and EPA has the authority to restrict or prohibit certain areas from use as disposal sites.

EPA’s decision to initiate the 404(c) process came about at this particular time partly as a result of recent judicial action. A suit was filed in 1977 by landowners who were interested in seeing a project, which originated in the 1960’s as a Corps flood control project (Harvey Canal—Bayou Barataria Levee project), completed as it was originally designed. This original design included levee-building, construction or a pumping station, and closure of some waterways. Over the years, EPA (and other agencies) continually objected to the original project design because of the significant adverse effects (primarily drainage of the wetland) which would be inflicted on this productive wetland ecosystem. In 1975, EPA recommended a modified design, which would replace the dams with flood gates and which would require that, if a pumping station was needed for flood control, it be operated so as to maintain the integrity of the wetlands.

The latest step in the landowner’s law suit occurred in the U.S. District Court for the Eastern District of Louisiana (on remand from the U.S. Court of Appeals for the 5th Circuit). Judge Lansing Mitchell issued an order which, in part, allowed EPA until December 18, 1984, to invoke 404(c) on the project as originally designed. On December 18, 1984, EPA initiated the 404(c) process with respect to that portion of the Bayou aux Carpes swamp owned by these landowners.

Subsequently, EPA initiated the 404(c) process for an additional area adjoining that property, but outside of the realm of the area being considered in the specific case before the District Court. Together, both of these tracts comprise the approximately 3,000 acre tract which is the subject of this notice and the public hearing.

EPA concern regarding the effects from projects involving the discharge of dredged or fill material in this area is not new. During a review of the Environmental Impact Statements and section 404 permit applications for two other large-scaled projects (the Marrero-LaFitte Waterline Project and the West Bank Hurricane Protection Levee...
Potential Adverse Impacts of Section 404 Permit Activities

The direct water quality effects resulting from the discharge of dredged or fill material could significantly and adversely affect the functions and values currently characterizing this wetland system. For example, plant productivity and the resulting food supply for fish and wildlife are dependent to a large degree upon existing water quality characteristics. Also, many important finfish and shellfish species are adversely impacted by alterations to the physical-chemical environment during critical stages in their life cycles. Effects on the ability of estuarine species to utilize in this area would be manifested in other portions of the Barataria Bay estuarine system.

Aside from the more immediate and direct effects of depositing fill material, activities requiring a Section 404 permit have been proposed for the area which would result in isolating the area hydrologically and/or draining the wetland. Although previous projects have limited the area through which water may flow, this wetland and its associated functions and values are still predominately determined by this interchange. Hydrological isolation would unacceptably diminish the current fish and wildlife potential of the immediate site. Areas further downstream would be affected also because of the site's use as a nursery area, its nutrient and detrital contributions, and its water quality contributions.

Draining the wetland would be the most severe of the indirect results of possible section 404 permit activities. The maintenance and movement of water through this wetland are vital to the preservation of the system. In addition, draining this site would have unacceptable adverse effects on the ecological characteristics of and recreational opportunities afforded by the eastern wetland portions of the Barataria Unit of the Jean Lafitte National Historical Park, which lies within the same drainage area as the site in question.

Drainage and conversion of this area would also contribute significantly to the cumulative wetland losses currently being experienced in coastal Louisiana in general, and in the Barataria Basin in particular. According to the Louisiana State University Center for Wetland Resources, Louisiana is losing nearly 40 square miles of its coastal wetlands each year. The rates of loss in the Barataria Basin from 1955–1978 averaged 7.5 square miles per year (Louisiana Department of Natural Resources) and are increasing faster than the national average for wetlands. This situation is significant because of the associated adverse consequences described above and because the Barataria Bay estuary provides an average 44 percent of Louisiana's total annual fish and shellfish harvest (Louisiana Department of Transportation and Development).

Proposed Determination

Based on a thorough site evaluation, coordination with other agencies and knowledgeable individuals, and a review of the literature, the Regional Administrator of Region 6 is of the opinion that issuing permits for Section 404 activities to be conducted in the wetlands in question could result in unacceptable adverse effects on shellfish beds and fishery areas, wildlife, and recreation areas. A possible exception would be for permits covering only certain habitat enhancement activities. EPA proposes to prohibit the specification of this wetland site for discharge of dredged or fill materials because such discharge could result in the direct loss of fish and wildlife habitat, the loss of detrital materials and fresh water which are exported to downstream fisheries by tidal exchange, a potential decreased production of fish food items, the loss of the natural water filtration mechanisms, the loss of stormwater buffering capacity, and the loss of recreational opportunities.

FOR FURTHER INFORMATION CONTACT:
Environmental Protection Agency,
Federal Activities Branch, 1201 Elm Street, Dallas, Texas 75270, (214) 767–2716.

Frances E. Phillips,
Acting Regional Administrator.
[FR Doc. 85–11985 Filed 5–16–85; 8:45 am]
BILLING CODE 6560–50–M.

FEDERAL COMMUNICATIONS COMMISSION

Allen H. Weiner and Weiner Broadcasting Co.; Order To Show Cause

In the matter of Allan H. Weiner and Weiner Broadcasting Company

Licensee of radio stations WOZW(AM), Monticello, ME, WOZI(FM), Presque Isle, ME, and remote pickup base station KPF–941, Yonkers, NY.

Order to show cause why the licenses for radio stations WOZW(AM), Monticello, ME,
DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

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 than 4,200 LF by 100 LF. This action would impact no greater than 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
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 Binewald
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)
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 than 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.
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,
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).
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 serve 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 overtopping. 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.
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.
<table>
<thead>
<tr>
<th>RISK &amp; RELIABILITY COMPARISON</th>
<th>GIWW WCC</th>
<th>GIWW A</th>
<th>AG</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm load exposure</td>
<td>Approximately 3 miles of storm frontage</td>
<td>Approximately 1 mile of storm frontage</td>
<td>Approximately 9 miles of storm frontage</td>
<td>Approximately 27 miles of storm frontage</td>
</tr>
<tr>
<td>Overtopping frequency</td>
<td>Overtopping frequency more than GIWW A alternative but less than AG alternative</td>
<td>Lowest overtopping frequency because it has least lineal exposure and 2' superiority over 100-yr water elevations along entire storm front</td>
<td>Overtopping frequency more than GIWW WCC alternative but less than PP alternative</td>
<td>Highest frequency of overtopping because it has greatest lineal exposure and least superiority over 100-yr water elevations</td>
</tr>
<tr>
<td>Overtopping volume</td>
<td>Overtopping volume more than GIWW A alternative but less than AG alternative</td>
<td>Lowest overtopping volume because it has the highest superiority over 100-yr elevations and shortest frontage</td>
<td>Overtopping volume more than GIWW WCC alternative but less than PP alternative</td>
<td>Highest overtopping volume because it has no superiority over 100-yr elevations and longest frontage</td>
</tr>
<tr>
<td>Non-storm load exposure</td>
<td>More storm load exposure than GIWW A alternative but less than AG alternative</td>
<td>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</td>
<td>Significantly more storm load exposure than GIWW WCC alternative but less than PP alternative</td>
<td>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</td>
</tr>
<tr>
<td>Value to terrorists</td>
<td>Less value to terrorists than GIWW A alternative, but more than AG alternative</td>
<td>High because HPS features are concentrated in terms of location and value, but easier to monitor and defend</td>
<td>Less value to terrorists than GIWW WCC alternative, but more than PP alternative</td>
<td>Low because HPS features are distributed by location and value, but harder to monitor and defend</td>
</tr>
<tr>
<td>Resistance to explosive devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>High resistance to man-portable devices; vulnerability to larger devices is low because access would be difficult</td>
</tr>
<tr>
<td>Transitions (levee-to-floodwall, floodwall-to-floodgate, etc)</td>
<td>Approximately 10</td>
<td>Least number of transitions approximately 6</td>
<td>Approximately 60</td>
<td>Highest number, approximately 90</td>
</tr>
<tr>
<td>Compartmentalization</td>
<td>Creates 2nd largest storm water storage subbasin</td>
<td>Creates the largest storm water storage subbasin</td>
<td>Creates smallest storm water storage subbasin</td>
<td>No new sub-compartments created</td>
</tr>
<tr>
<td>Foundations</td>
<td>Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative</td>
<td>Pile foundations are engineered</td>
<td>Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative</td>
<td>Levee foundations would be non-engineered unless geo-textile or soil cement design alternatives are adopted; any T-wall foundations would be engineered</td>
</tr>
<tr>
<td>Complexity</td>
<td>High; largest number of new HPS features, though many separate levee reaches are eliminated</td>
<td>High; largest number of new HPS features, though many separate levee reaches are eliminated</td>
<td>High; though lower than GIWW WCC and GIWW A alternatives</td>
<td>Low; largest number of reaches, but no new HPS features created</td>
</tr>
<tr>
<td>Interdependency of features</td>
<td>8-9 pump stations upstream dependent on the new pump station</td>
<td>9 pump stations upstream become dependent on the new pump station</td>
<td>7 pump stations upstream depend on new pump station</td>
<td>No new dependencies</td>
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<tr>
<td>Redundancy</td>
<td>Pumping capacity is</td>
<td>Pumping capacity is</td>
<td>Pumping capacity is</td>
<td>No redundancy</td>
</tr>
<tr>
<td>Active vs. Passive control</td>
<td>supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>supplied by 3 sets of 3 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>Levees are generally considered passive flood protection, but there are 47 floodgates, 33 sluice gates, and 19 butterfly valves that must be manually operated</td>
</tr>
<tr>
<td>--------------------------</td>
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<td>-------------------------------------------------</td>
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<td>-------------------------------------------------</td>
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<tr>
<td>Operation &amp; Maintenance</td>
<td>Most expensive</td>
<td>Most expensive</td>
<td>Less expensive than GIWW WCC and GIWW A alternatives, but significantly more than PP alternative</td>
<td>Least expensive</td>
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<tr>
<td>Inspections and maintenance</td>
<td>More rigorous inspections</td>
<td>More rigorous inspections</td>
<td>More rigorous inspections</td>
<td>Less rigorous; only visual inspection of levee and floodwalls</td>
</tr>
<tr>
<td>Quality control</td>
<td>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</td>
<td>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</td>
<td>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</td>
<td>Greatest opportunity for non-compliance with construction specifications; Quality during placement and compaction of earthen levees and floodwalls would vary over space and time</td>
</tr>
<tr>
<td>Utility dependence</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>No connection to utility grids required</td>
</tr>
<tr>
<td>Reliability Team Assessment (relative scoring)</td>
<td>7(extrapolated)</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Hurricane seasons under construction</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
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<tr>
<td>Redundancy of system</td>
<td>Most redundant</td>
<td>Most redundant</td>
<td>Redundancy on Algiers Canal; no redundancy on Harvey Canal</td>
<td>No redundancy</td>
</tr>
<tr>
<td>Uncertainty in subsurface conditions</td>
<td>More uncertain than GIWW A alternative, Less uncertain than AG alternative</td>
<td>Least uncertain</td>
<td>More uncertain than GIWW WCC alternative, Less uncertain than PP alternative</td>
<td>Most uncertain</td>
</tr>
<tr>
<td>Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barge impact causing catastrophic failure</td>
<td>Least susceptible</td>
<td>Least susceptible</td>
<td>More susceptible than GIWW WCC and GIWW A alternatives, but less than PP alternative</td>
<td>Most susceptible</td>
</tr>
</tbody>
</table>
## ENVIRONMENTAL COMPARISON

<table>
<thead>
<tr>
<th></th>
<th>GIWW WCC</th>
<th>GIWW A</th>
<th>AG</th>
<th>PP</th>
</tr>
</thead>
</table>
| 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 wetland **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** |
<table>
<thead>
<tr>
<th></th>
<th>GIWW WCC</th>
<th>GIWW A</th>
<th>AG</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Completion Date</td>
<td>MAR 2013</td>
<td>MAR 2013</td>
<td>AUG 2013</td>
<td>JUN 2013</td>
</tr>
<tr>
<td>100-year “wall of protection” completion date. Full pumping capacity would not be in place until Construction Completion date</td>
<td>JUN 2011</td>
<td>JUN 2011</td>
<td>JUN 2011</td>
<td>JUN 2013</td>
</tr>
<tr>
<td>Possible time slips due to real estate, relocations, environmental proceedings and litigation</td>
<td>Action within 404 (c) area, and relocation issues</td>
<td>Action within 404 (c) area and relocation issue Acquisition of property</td>
<td>Real estate and relocations issues</td>
<td>Real estate and relocation issues</td>
</tr>
</tbody>
</table>

### 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 the 12th largest in the United States for value of cargo. The Port of New Orleans handles approximately 84 million short tons of cargo a year, whereas 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 railroads (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. The GIWW WCC alternative: 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 waterway:** 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

- Special “T-wall”
- Pump Station Intake Basin Excavation
- 20,000 – 25,000 cfs Pump Station
- Pipeline Relocation
- New Levee
- Bypass Channel Excavation

Bayou Aux Carpes 404 (c)
1. **Review of Compliance (230.10 (a)-(d)).**

A review of this project indicates that:

a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);

   
<table>
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<tr>
<th>YES</th>
<th>NO*</th>
<th>YES</th>
<th>NO</th>
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</table>

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);

   
<table>
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<tr>
<th>YES</th>
<th>NO*</th>
<th>YES</th>
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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);

   
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<tr>
<th>YES</th>
<th>NO*</th>
<th>YES</th>
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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).

   
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<tr>
<th>YES</th>
<th>NO*</th>
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2. **Technical Evaluation Factors (Subparts C-F).**

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<tr>
<th>N/A</th>
<th>Not Significant</th>
<th>Significant*</th>
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   a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

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

   
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   b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).

   (1) Effect on threatened/endangered species
   (2) Effect on the aquatic food web.

   
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2. Technical Evaluation Factors (Subparts C-F)

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<tr>
<th></th>
<th>N/A</th>
<th>Not Significant</th>
<th>Significant*</th>
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<tbody>
<tr>
<td>(3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).</td>
<td></td>
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<td>X</td>
</tr>
</tbody>
</table>

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).

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

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No*</th>
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<tbody>
<tr>
<td>(1) Physical characteristics</td>
<td></td>
<td></td>
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<tr>
<td>(2) Hydrography in relation to known or anticipated sources of contaminants</td>
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<td>(3) Results from previous testing of the material or similar material in the vicinity of the project</td>
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<td>(4) Known, significant sources of persistent pesticides from land runoff or percolation</td>
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<td>(5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances</td>
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<tr>
<td>(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources</td>
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</tbody>
</table>
3. Evaluation of Dredged or Fill Material (Subpart G).

(7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities

(8) Other sources (specify)

* 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:
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.

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

(2) Current velocity, direction, and variability at disposal site

(3) Degree of turbulence

(4) Water column stratification

(5) Discharge vessel speed and direction

(6) Rate of discharge

(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities)

(8) Number of discharges per unit of time

(9) Other factors affecting rates and patterns of mixing (specify)

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.

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.

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:
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 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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.
## Draft Path Forward with GIWW WCC

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

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


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
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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:

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 Parish⁴ and the Corps². As a result, that phase of the project was never

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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.
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.
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 km² per year during the 1960’s through the 1980’s, decreasing to approximately 62 km² per year between 1990 and 2000. An additional loss of approximately 1300 km² 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.
The 1985 scientific analyses (EPA, June 1985; 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.
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.
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
Algers 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.
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 the 1985 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 life 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.
References


EPA. *Final Determination of the U.S. Environmental Protection Agency’s Assistant Administrator for External Affairs Concerning the Bayou aux Carpes Site in Jefferson Parish, Louisiana Pursuant the Section 404(c) of the Clean Water Act.* 50 Fed. Reg. 47267 (November 15, 1985).


Swarzenski, Christopher M. Ecology of Peat (Floating) Marshes at Jean Lafitte National Park and Preserve, Louisiana. No date. USGS, Louisiana Water Science Center.


Part I, Appendix A
ENVIROMENTAL PROTECTION AGENCY


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.

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/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 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 400 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 these 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.

[F.R. 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
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 than 4,200 LF by 100 LF. This action would impact no greater than 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 reduce 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 HSRDRS, $16.8 billion, has been appropriated by Congress. This funding includes funds for the design and construction of all HSRDRS 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
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 Binnewald  
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 Lafitte 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)
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.
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.

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

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Figure 2. Conceptual GIWW A alternative schematic.
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).
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 serve 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 overtopping. 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

<table>
<thead>
<tr>
<th>Storm load exposure</th>
<th>GIWW WCC</th>
<th>GIWW A</th>
<th>AG</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximately 3 miles of storm frontage</td>
<td>Approximately 1 mile of storm frontage</td>
<td>Approximately 9 miles of storm frontage</td>
<td>Approximately 27 miles of storm frontage</td>
<td></td>
</tr>
<tr>
<td>Overtopping frequency</td>
<td>Overtopping frequency more than GIWW A alternative but less than AG alternative</td>
<td>Lowest overtopping frequency because it has least lineal exposure and 2' superiority over 100-yr water elevations along entire storm front</td>
<td>Overtopping frequency more than GIWW WCC alternative but less than PP alternative</td>
<td>Highest frequency of overtopping because it has greatest lineal exposure and least superiority over 100-yr water elevations</td>
</tr>
<tr>
<td>Overtopping volume</td>
<td>Overtopping volume more than GIWW A alternative but less than AG alternative</td>
<td>Lowest overtopping volume because it has the highest superiority over 100-yr elevations and shortest frontage</td>
<td>Overtopping volume more than GIWW WCC alternative but less than PP alternative</td>
<td>Highest overtopping volume because it has no superiority over 100-yr elevations and longest frontage</td>
</tr>
<tr>
<td>Non-storm load exposure</td>
<td>More storm load exposure than GIWW A alternative but less than AG alternative</td>
<td>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</td>
<td>Significantly more storm load exposure than GIWW WCC alternative but less than PP alternative</td>
<td>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</td>
</tr>
<tr>
<td>Value to terrorists</td>
<td>Less value to terrorists than GIWW A alternative, but more than AG alternative</td>
<td>High because HPS features are concentrated in terms of location and value, but easier to monitor and defend</td>
<td>Less value to terrorists than GIWW WCC alternative, but more than PP alternative</td>
<td>Low because HPS features are distributed by location and value, but harder to monitor and defend</td>
</tr>
<tr>
<td>Resistance to explosive devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>Lower resistance to man-portable explosives and more accessible to larger devices</td>
<td>High resistance to man-portable devices; vulnerability to larger devices is low because access would be difficult</td>
</tr>
<tr>
<td>Transitions (levee-to-floodwall, floodwall-to-floodgate, etc)</td>
<td>Approximately 10</td>
<td>Least number of transitions approximately 6</td>
<td>Approximately 60</td>
<td>Highest number, approximately 90</td>
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<td>Compartmentalization</td>
<td>Creates 2nd largest storm water storage subbasin</td>
<td>Creates the largest storm water storage subbasin</td>
<td>Creates smallest storm water storage subbasin</td>
<td>No new sub-compartments created</td>
</tr>
<tr>
<td>Foundations</td>
<td>Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative</td>
<td>Pile foundations are engineered</td>
<td>Same as GIWW A alternative, except for some levee reaches, in which case see PP alternative</td>
<td>Levee foundations would be non-engineered unless geo-textile or soil cement design alternatives are adopted; any T-wall foundations would be engineered</td>
</tr>
<tr>
<td>Complexity</td>
<td>High; largest number of new HPS features, though many separate levee reaches are eliminated</td>
<td>High; largest number of new HPS features, though many separate levee reaches are eliminated</td>
<td>High; though lower than GIWW WCC and GIWW A alternatives</td>
<td>Low; largest number of reaches, but no new HPS features created</td>
</tr>
<tr>
<td>Interdependency of features</td>
<td>8-9 pump stations upstream dependent on the new pump station</td>
<td>9 pump stations upstream become dependent on the new pump station</td>
<td>7 pump stations upstream depend on new pump station</td>
<td>No new dependencies</td>
</tr>
<tr>
<td>Redundancy</td>
<td>Pumping capacity is</td>
<td>Pumping capacity is</td>
<td>Pumping capacity is</td>
<td>No redundancy</td>
</tr>
<tr>
<td>Active vs. Passive control</td>
<td>supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>supplied by 4 sets of 4 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>supplied by 3 sets of 3 independently powered pumps; 2 generators provide redundant backup power supply to each set of pumps</td>
<td>Levees are generally considered passive flood protection, but there are 47 floodgates, 33 sluice gates, and 19 butterfly valves that must be manually operated</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Operation &amp; Maintenance</td>
<td>Pump station and gates must be staffed before, during, and after a storm event; 1 additional pump station (Old Estelle) must be staffed</td>
<td>Pump station and gates must be staffed before, during, and after a storm event</td>
<td>Pump station and gates must be staffed before, during, and after a storm event; 30 flood gates and 4 pump stations must be operated</td>
<td>Levees are generally considered passive flood protection, but there are 47 floodgates, 33 sluice gates, and 19 butterfly valves that must be manually operated</td>
</tr>
<tr>
<td>Inspections and maintenance</td>
<td>Most expensive</td>
<td>Most expensive</td>
<td>Less expensive than GIWW WCC and GIWW A alternatives, but significantly more than PP alternative</td>
<td>Least expensive</td>
</tr>
<tr>
<td>Quality control</td>
<td>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</td>
<td>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</td>
<td>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</td>
<td>Greatest opportunity for non-compliance with construction specifications; Quality during placement and compaction of earthen levees and floodwalls would vary over space and time</td>
</tr>
<tr>
<td>Utility dependence</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>Pump stations and gates will require connection to utility grids</td>
<td>No connection to utility grids required</td>
</tr>
<tr>
<td>Reliability Team Assessment (relative scoring)</td>
<td>7(extrapolated)</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Hurricane seasons under construction</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Redundancy of system</td>
<td>Most redundant</td>
<td>Most redundant</td>
<td>Redundancy on Algiers Canal; no redundancy on Harvey Canal</td>
<td>No redundancy</td>
</tr>
<tr>
<td>Uncertainty in subsurface conditions</td>
<td>More uncertain than GIWW A alternative, Less uncertain than AG alternative</td>
<td>Least uncertain</td>
<td>More uncertain than GIWW WCC alternative, Less uncertain than PP alternative</td>
<td>Most uncertain</td>
</tr>
<tr>
<td>Barge impact causing catastrophic failure</td>
<td>Least susceptible</td>
<td>Least susceptible</td>
<td>More susceptible than GIWW WCC and GIWW A alternatives, but less than PP alternative</td>
<td>Most susceptible</td>
</tr>
<tr>
<td></td>
<td>GIWW WCC</td>
<td>GIWW A</td>
<td>AG</td>
<td>PP</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Total Wetlands and Non-</td>
<td><strong>Direct Impacts:</strong> 9.6 acres of Nationally significant 404 c area</td>
<td><strong>Direct Impacts:</strong> 5.1 acres of Nationally significant 404 c area</td>
<td><strong>Direct Impacts:</strong> 161 acres of wetlands + 150 acres of BLH = 311</td>
<td><strong>Direct Impacts:</strong> 150 acres of BLH + 50 acres BLH = 200 Total</td>
</tr>
<tr>
<td>wetlands Uplands</td>
<td>wetlands + 223.3 acres of direct impacts to BLH + 8.9 acres of swamp</td>
<td>wetlands + 112 acres (not in 404 (c)) = 117.1 Total acres of wetlands</td>
<td>Total acres of wetland</td>
<td>acres of wetlands</td>
</tr>
<tr>
<td>Resources (Unavoidable</td>
<td>(not in 404 (c)) = 232.2.</td>
<td><strong>Indirect impacts:</strong> -Bifurcation of the 404 (c) area alters</td>
<td><strong>Indirect impacts:</strong> -Minimal indirect impacts</td>
<td><strong>Indirect impacts:</strong></td>
</tr>
<tr>
<td>Impacts)</td>
<td></td>
<td>wildlife migration and ground water flow</td>
<td><strong>Other Details:</strong> -Storm surge reduction by marsh and flotant</td>
<td>-Minimal indirect impacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Impoundment of norther 519 acres of flotant marsh and the potential</td>
<td>-May return ~10 acres to flood side</td>
<td><strong>Other Details:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>total loss of flotant marsh and degradation within the 404 (c)</td>
<td></td>
<td>-Storm surge reduction by marsh and flotant</td>
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<td></td>
<td></td>
<td><strong>Other Details:</strong> -Floodwall would be designed to allow drainage</td>
<td></td>
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<td></td>
<td></td>
<td>and exchange of surface water during non-storm conditions</td>
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<td></td>
<td></td>
<td>-The wall would be designed and built to control outflow of</td>
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<td></td>
<td></td>
<td>flooded marsh</td>
<td></td>
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<td></td>
<td></td>
<td>-This alternative may return 20 acres of wetlands to the flood side</td>
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<tr>
<td>Socioeconomic/Human</td>
<td>-Relocation of 1 business and 1 pipeline (Enterprise Gas pipeline)</td>
<td>-Relocation of 1 business</td>
<td>-Relocation of 13 residences and 3-4 businesses</td>
<td>-Relocation of 70 residences, 600 apartments, and 55 businesses</td>
</tr>
<tr>
<td>Resources</td>
<td>-Harvey canal businesses would included in the protection</td>
<td>-Bisecting 404 (c) degrades recreational use of area and potentially</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>impacts shopping, bird watching, canoeing, kayaking,</td>
<td></td>
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<td></td>
<td></td>
<td>photography and commercial uses (swamp tours, etc.),</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>though gates crossing the 404 c could</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>accommodate the recreational use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Harvey canal businesses would be included in the protection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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**

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

**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 the 12th 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. The GIWW WCC alternative: 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 waterway:** 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 HSDRRRS 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

- Special “T-wall”
- Dual Navigation Gates
- Pump Station Intake Basin Excavation
- 20,000 – 25,000 cfs Pump Station
- Pipeline Relocation
- New Levee
- Bypass Channel Excavation

Bayou Aux-Carpes 404 (c)
1. Review of Compliance (230.10 (a)-(d)).

A review of this project indicates that:

a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);

   YES  NO*  YES  NO

b. The activity does not appear to: (1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; (2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and (3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies);

   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, aesthetic, 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).

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

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

   X  X

b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).

   (1) Effect on threatened/endangered species
   (2) Effect on the aquatic food web.

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

<table>
<thead>
<tr>
<th>Subpart</th>
<th>Description</th>
<th>N/A</th>
<th>Not Significant</th>
<th>Significant*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>Effect on other wildlife (mammals, birds, reptiles, and amphibians).</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Subpart</th>
<th>Description</th>
<th>N/A</th>
<th>Not Significant</th>
<th>Significant*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Effects on municipal and private water supplies.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>Recreational and commercial fisheries impacts.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>Effects on water-related recreation.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>Esthetic impacts.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Subpart</th>
<th>Description</th>
<th>Yes</th>
<th>No*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Physical characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>Hydrography in relation to known or anticipated sources of contaminants</td>
<td>No*</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>Results from previous testing of the material or similar material in the vicinity of the project</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>Known, significant sources of persistent pesticides from land runoff or percolation</td>
<td>No*</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances</td>
<td>No*</td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>Other public records of significant introduction of contaminants from industries, municipalities, or other sources</td>
<td>No*</td>
<td></td>
</tr>
</tbody>
</table>
3. Evaluation of Dredged or Fill Material (Subpart G).

(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  \[ \text{No*} \]

(8) Other sources (specify)

* 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:
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 \hspace{1cm} 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 \[ \text{Yes} \]
(2) Current velocity, direction, and variability at disposal site \[ \text{No} \]
(3) Degree of turbulence \[ \text{Yes} \]
(4) Water column stratification \[ \text{No} \]
(5) Discharge vessel speed and direction \[ \text{NA} \]
(6) Rate of discharge \[ \text{Yes} \]
(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities) \[ \text{Yes} \]
(8) Number of discharges per unit of time \[ \text{No} \]
(9) Other factors affecting rates and patterns of mixing (specify) \[ \text{No} \]

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 \hspace{1cm} 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 \hspace{1cm} 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).
- b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5).
- c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5).
- d. Contaminant availability (review sections 2a, 3, and 4).
- e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5).
- f. Disposal site (review sections 2, 4, and 5).
- g. Cumulative impact on the aquatic ecosystem.
- h. Secondary impacts on the aquatic ecosystem.

* 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.


Evaluation prepared by:
Position: Robert H. Boudet, Senior Project Manager, AEROSTAR Environmental Services
Date: October 10, 2008
Evaluation reviewed by:
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.
### Draft Path Forward with GIWW WCC

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

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


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:


Copies of the written comments are available at:


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:


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
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 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.

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
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:

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Commander, Sector New Orleans
Staff symbol: spw
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Mr. Garret Graves
Chairman
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Authority of Louisiana
1051 North 3rd Street
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Baton Rouge, Louisiana 70802
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, naphtha, 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:

**Floodwall Alternative 1:** 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](image)

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

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 floodwall 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.
Floodwall Alternative 3: 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.

**Earthen Levee Alternative 4: 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.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>1</th>
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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
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
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.
2. See the Corps response to building the floodwall in the GIWW, Appendix A.
3. Response from EPA: EPA extended the comment period on the CWA Section 404(c) issue until Feb. 23, 2009.
4. See the Corps response to building the floodwall in the GIWW, Appendix A.
5. 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).
6. 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.
7. 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.
8. 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 that 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 404(c) 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 404(c) 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. See the 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.

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

February 9, 2009

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
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,

[Signature]

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
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.
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. Furthermore, 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
Horst Grezczmiel, 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
Comments RE: IER #12 and Bayou aux Carpes 404(c) modification
February 11, 2009
Gulf Restoration Network
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Steven Peyronnin, Coalition to Restore Coastal Louisiana
Paul Kemp, National Audubon Society
Haywood Martin, Delta Chapter Sierra Club.
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. 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
February 11, 2009

Gib Owen, PM-RS  Barbara Keeler (6WQ-EC)
U.S. Army Corps of Engineers EPA Region 6
P.O. Box 60267 1445 Ross Avenue,
New Orleans, LA 70160-0267 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 (JLNHP) 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.

B. Kohl, LAC, 2/11/09
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 oppose 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 effects of contaminants on benthic organisms - only the effect 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.

B. Kohl, LAC, 2/11/09
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 withheld 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 JLNHP. 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?

B. Kohl, LAC, 2/11/09
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.

B. Kohl, LAC, 2/11/09
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,

[Signature]

Dr. Barry Kohl
President, LAC

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

B. Kohl, LAC, 2/11/09
References:


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


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.

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.

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.
- Tampering with 404 National Significant Wetlands could establish a precedence which may well have unintended consequences.
- Using contaminated sediments as fill in the Jean Lafitte National Historical Park & Preserve should not be an option.
- 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.

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

Sincerely,

Wendy King, President, LWVNO

[Signature]
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."

Sincerely,
Paul Orr
Lower Mississippi Riverkeeper
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
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.

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
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:

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.

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.

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
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, L.A. 70059-0760

504-227-0254

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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
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
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
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
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.

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

https://r6mail3.r6oer.epa.gov/mail/bkeeler.nsf/($Inbox)/B84B11798304D4A98525756300... 2/20/2009
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

https://r6mail3.r6oer.epa.gov/mail/bkeeler.nsf/($Inbox)/DCCDB882A9D77050852575630... 2/20/2009
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.

Quality Products ∞ Professional Service
"American Owned & Operated"
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

Quality Products ~ Professional Service
“American Owned & Operated”
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

A Good Credit Score is 700 or Above. See yours in just 2 easy steps!
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(e) 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(e) area during construction and for
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

[Signature]

Gerald J. Huffman, Jr.
President
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
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.

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 alternative, 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
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
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
Comments on Bayou aux Carpes 404(c) Modification Request
February 23, 2009
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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](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) 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

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.

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).

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

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 300 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 affect 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

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.
Comments on Bayou aux Carpes 404(c) Modification Request  
February 23, 2009  
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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.

* * *

“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).

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:

“[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-
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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.”

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.” 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.

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.

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

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6 Id. at 68.
7 Id. at 67-68.
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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.

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

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

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,

Melissa Samet
Senior Director, Water Resources
American Rivers
6 School Street, Suite 230
Fairfax, CA 94930
(415) 482-8150

David R. Conrad
Senior Water Resources Specialist
National Wildlife Federation
1400 16th Street, NW, Suite 501
Washington, DC 20036
(202) 797-6697
DATE: 2/23/2009

NUMBER OF PAGES, INCLUDING FAX COVER SHEET: 3

TO: BARBARA KEELER

FAX #: (214) 665-7373

FROM: DAVID MILLER, DIRECTOR OF IMPLEMENTATION

OFFICE OF COASTAL PROTECTION & RESTORATION

COMMENTS:

CONFIDENTIALITY NOTICE

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State of Louisiana

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.
Ms. Barbara Keeler (6WQ-EC)
February 23, 2009
Page 2

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

Sincerely,

[Signature]
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
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
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
includes fully developing the public hearing record by taking testimony in admitting data and information into the hearing record as evidence. EPA will consider the public hearing record in making its final decision concerning the Corps of Engineers request to modify the Bayou aux Carpes Clean Water Act Section 404 (c) designation. The Corps of Engineers will consider the public hearing record in the process of making a final decision on the actions proposed as part of the Gulf Intracoastal Waterway West Closure Complex Project described as individual Environmental Report No. 12. Please note that I do not participate in making EPA's final decision concerning the request to modify the 404 (c) designation nor in the Corps final decision on the proposed action described.
in Individual Environmental Report No. 12.

In addition to me there are other EPA representatives present this evening, including Brian Frazer, Chief of the Wetlands and Aquatic Resources Regulatory Branch in the EPA headquarters Office of Water, and two persons on his staff, Ann Campbell and Clay Miller. From EPA Region 6 in Dallas, Jane Watson, Chief of the Ecosystems Protection Branch in the Water Quality Division, and Barbara Keeler, Coastal and Wetlands Planning Coordinator.

There are a number of representatives of Corps of Engineers present this evening including Lieutenant Colonel Mark Jernigan, Deputy District Commander, New Orleans District U.S. Army Corps of Engineers. And Gib Owen, the Chief of the Ecological Planning and
Restoration Section in the New Orleans District of the Corps of Engineers.

EPA prepared a public notice of tonight's public hearing in the Federal Register on January 14, 2009. The Corps of Engineers published notice of this public hearing in the Plaquemines Gazette on January 20 and 27. The Times Picayune on January 20, 28, February 7 and 11, and in The Gambit, February 8. The Corps also notified the public of tonight's public hearing with notices on its website, postcard mailings to members of the public who have requested to be on the Corps mailing list for this action, and by running flash ads during the period February 2 through February 11 on the nola.com website. The public notices informed the members of the
public of their opportunity to obtain information and copies of Individual Environmental Report No. 12 and the request that EPA modify the Bayou aux Carpes Clean Water Act Section 404 (c) designation to submit comments to attend and participate in the public hearing being held this evening. I have entered the public note -- copies of the public notices for tonight's public hearing into the hearing record and have asked the court reporter to number them as Exhibits 1 and 2.

In addition, several people have submitted written comments prior to this public hearing. I am entering those comments into the record and I have asked the court reporter to number them as Exhibits 3 through 6.

Now I would like to outline the procedures for this public
hearing. The procedures for this
government hearing are rather simple
and informal; however, this
hearing must be conducted in an
orderly manner that will allow
EPA and the Corps to obtain and
record all relevant and
appropriate information related
to the request to modify the
Bayou aux Carpes Clean Water Act
Section 404 (c) designation and
Individual Environmental Report
No. 12. Tonight's public hearing
is not an evidentiary hearing or
trial. There will be no direct
or cross examination of
witnesses. As hearing officer, I
may ask questions but only for
clarification of the hearing
record. Otherwise, persons
giving testimony will not be
requested. This is not a forum
for debate or argumentative
exchanges but rather one for the
gathering of facts, data and
information and opinions regarding the request to modify the Bayou aux Carpes Clean Water Act Section 404 (c) Designation and Individual Environmental Report No. 12. EPA will respond to questions and issues concerning the Corps request to modify the Bayou aux Carpes Clean Water Act Section 404 (c) Designation raised in the record of this public hearing and the Corps of Engineers will respond to questions and issues concerning Individual Environmental Report No. 12 raised in the record of this public hearing, but those answers will be in writing and prepared after this public hearing and after fully considering the questions and issues raised. EPA and Corps of Engineers personnel will not respond to questions during the public hearing this
evening. They may respond to
informal questions presented
outside of the hearing record at
the open house that will be
conducted after this hearing
concludes. I will call on
everyone who desires to provide
testimony in the order presented
on the forms provided at the
registration table. If you have
not signed a speaker registration
form and wish to testify, please
take a minute to obtain and
complete a form provided at the
registration table. When I call
upon you to give your testimony,
please state your name, and if
you are affiliated with or
representing an organization,
please identify your
organization. I must obtain a
clear uninterrupted record of the
hearing, so please do not talk
while others are giving
testimony. We can only have one
person talking at a time in order for the court reporter to be able to hear and accurately record the testimony provided.

As hearing officer for this public hearing, I may impose time limits on providing testimony if the circumstances warrant. If your plan testimony is rather lengthy, I recommend that you consider summarizing your testimony followed by a request to enter your complete written statement into the hearing record. At the present time eleven people have signed up to speak. In order to give everyone an opportunity to speak in a reasonable time, I'm imposing a time limit of six minutes per speaker until all have had the opportunity to give testimony. I will give you a warning when you have gone five so that you know that it will be time to be...
wrapping it up. If time permits after all have had their opportunity, I may give persons wishing to add to their testimony additional time. After the public hearing closes this evening, EPA will continue to accept written comments on the request to modify the Bayou aux Carpes Clean Water Act Section 404 (c) Designation through February 13, 2009. The Corps of Engineers will continue to accept written comments on Individual Environmental Report No. 12 until 12 midnight tonight.

I will now take the testimony of persons who have signed up to speak beginning with Mayor Tim Kerner of the town of Lafitte.

MR. KERNER:

Thank you. Good evening. I want to thank y'all for having me. I was going to ask a few questions but I will just say
that watching the presentation it said that, you know, they had a lot of input and you got with the local government and the Levee Board. Well, I am the mayor of the town of Lafitte and nobody got with me or anybody that belongs to my town, and also the -- I'm the President of the Levee Board and nobody ever addressed the Levee Board with any of these issues, so -- and I will tell you what, Lafitte and Barataria is going to be the ones that's devastated from this floodgate. I'm sure that the people from the Corps here has heard about Donaldsonville to the Gulf. That the levee system that is supposed to be going from Lafourche to Belle Chasse. Well, the delegation from Washington signed a letter in support that Lafitte, Barataria and Crown Point would 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
numerous meetings we have had as well as people from the Corps attending and coming out to our property and all of the adjacent property all around and keeping up informed what is going on; however, in reading the report, there really was not enough significance impact addressed in it to reflect how we are going to be addressed. If you look directly behind you on that map, those two squares of property at the end of Bayou Road is what we utilize as our safe fall in shooting areas. We have to have at least a thousand feet of protected area and shot fall to protect the general public from any shot that goes into those areas. All of that is going to get lost as well as the adjoining properties and there's a lot of facilities that we have back up in there. So I just want to make
those notes back into the public comment at that point in time. That's all I want to say.

MR. BARRA:

Thank you for your comments.

Matt Rota.

MR. ROTA:

Hello. My name is Matt Rota. I am with Gulf Restoration Network and I thank you for the opportunity for the comments, thank you for putting this hearing together. I will also be submitting written comments. I have emailed them to Gib Owen and Barbara Keeler already, but I will also be submitting hard copies into the record.

There is a few aspects that I would like to talk about today. The first one is just the whole idea that we are having this meeting. This is probably the first time a lot people are learning about this project and
our public forum, and for the
Corps to have the public comment
period to end midnight and this
is probably going to go on until
about 8 o'clock, giving everybody
a full three or so hours to
digest and figure out what they
want to comment on is just not
adequate. We don't think that
the Corps comment period has been
adequate for that. I mean, the
EPA isn't that much longer, it's
just 'til Friday, but there is at
least some significant time to be
able to digest what people are
learning today. The second thing
that I would like to mention and
I think others will be talking
about this further is that we
don't feel that the full
avoidance of the Bayou aux Carpes
404 (c) area has been looked at.
It is given a little time in
IER-12 showing that they are
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
be looked at in another one of
the IER's, but in public meetings
that we have had with the Corps
in the past they developed a
spreadsheet that is kind of a
rolling cumulative impact
analysis, and we feel that that
should be included in each one of
these IER's to give everybody the
best idea that they can, what
kind of cumulative impacts we are
going to be looking at with the
entire one hundred year
protection system as a whole.

Finally, last thing that I
would like to talk about today
that I would like to highlight is
the fact that non-structural
alternatives really are just
given lip service in this. It is
basically assumed in here in the
IER that -- in IER-12 that if we
can't raise every single house in
the entire area we aren't going
to look at non-structural
alternatives, raising houses, weather rising houses at all. In WRDA it is not an all or nothing, it says it can be -- non-structural alternatives can be looked at in conjunction with structural alternatives such as levees and floodwalls and I am not saying that we don't need levees and floodwalls. I'm a resident of New Orleans as probably everybody here is or the greater metro area and all of us understand the importance of levees within a comprehensive hurricane system, but completely dismissing raising houses or some houses in some areas because we can't -- it would be economically infeasible to raise every single house in the metro area is just flood logic. So in conclusion I would just like to say that we feel that the -- and it's outlined more in my written
comments that the IER-12 is not
flushed out enough and that they
have not -- the Corps has not
presented what we feel a full
analysis on all of the
alternatives, and without that,
we don't see how EPA can make a
real informed decision without
having some of that information
basically, like I said, wrote off
maybe moving the floodwall out a
little bit more into the
waterways still not impacting the
channel, and we don't feel
there's enough evidence to
support that, and there might in
the end, but we don't want EPA to
make a hasty decision because
they certainly didn't make a
hasty decision when they first
did this for the foresee action.
Thank you for the opportunity to
comment.

MR. BARRA:

Thank you for commenting.
Mr. Mondino:

Good evening. My name is Gabriel Mondino. I suppose that my affiliation would be as a citizen of New Orleans. I have no organization that I'm affiliated with.

I guess the relevant question that I have noticed looking at this presentation, reading materials about it is that with the 404 (c) Designation and all of the work that went into what was -- what is labeled the final determination, the question of -- at hand really is not so much the entirety of the levee system, and this exactly is why EPA is here tonight, but the impact on this particular area, and so the question that -- the way that I would phrase it is whether it's reasonable for the Army Corps of Engineers to use a 404 (c)
Designated area which has already been given extensive EPA authority with oversight in fashioning adequate hurricane protection for the New Orleans area, and I would have to unfortunately say that based on the presentation that we have here tonight I don't think that we can have an adequate answer to that question because I feel that the plan at this point, the IER doesn't really seem like it's half baked. We ought to be cooking, I might give it another 20 minutes or so to see if it really hit the point at that point, but I don't feel as though the plan where it is now, there isn't enough information for the public. We do not know what the Environmental Impact of Alternative studies of placing the floodwall away from the 404 (c) Designated area back into the
shallow waters, what the
hydrological effects of that or
the engineering challenges in
that and we haven't been able to
witness that as the public to
truly see whether we, as the
public, who are the ones who
benefit from this 404 (c)
Designation are willing to allow
some impact on something that is
as noted by the EPA a national
historic treasure.

The only other comment that I
would make is that it seems to me
that the appropriate action to
take at this time is really to
present the public with an
amended IER as to this project as
opposed to filling in these
details in some sort of
comprehensive environmental
statement after the fact. I
think that doing -- doing that
course of action filling the
necessary details of a project
really runs in the face of a
logic of having these public
hearings in the first place of a
logic that foster one of our
first environmental legislation,
NEPA, and the entire logic of the
public impact and the public
opportunity to engage its civil
servants and its agencies in a
way that is going to benefit not
only the natural environment as
is the case here but also protect
all of the people like me and
everyone else in this room who
live in this metro area. That is
my only comments.

MR. BARRA:
Thank you for your comment.

Jill Mastrototano.

MS. MASTROTOTANO:
Good evening. I'm Jill
Mastrototano. I am the senior
field organizing manager for the
Sierra Club based here in New
Orleans and I appreciate the
opportunity that EPA and the
Corps has afforded us all this
evening in the community to
review and comment on this
project. I would echo the
request of Matt Rota with the
Gulf Restoration Network that the
comment period be extended one
additional week to allow those in
the public that have just learned
about this project to put written
comments into the record beyond
midnight tonight or Friday, that
is EPA's deadline.

Certainly the Sierra Club
supports effective comprehensive
and meaningful hurricane
protection for the Louisiana
community, be it in the form of
levees but also non-structural
protection, and certainly since
the 2005 hurricane season there's
been significant scientific
attention given to support the
importance of protecting our
wetlands and maintaining our coastal resources of which these 404 (c) designated wetlands are, and we appreciate EPA's concern to uphold the importance of this 404 (c) area. We would ask that given the almost 25 years of protection that this area has has enjoyed that that continue in whole. Importantly we recognize the importance of 404 (c) not just given the nice presentation that EPA provided but that our Sierra Club staff and volunteers have worked very hard on protecting 404 (c) area. Of course last year's recent Yazoo Pumps is a very good example of that. We would ask that EPA continue to explore the importance of including or the necessity of including this 404 (c) area in Jean Lafitte Historic National Park, we would encourage that. We also recognize that the
Corps has made significant strides in modifying the impacts of this project on the ground to 404 (c) area, and we applaud them for that. However, we feel that there can be additional distance met, and we request that the Corps explore the nine acres of impacts that continue to exist on paper. One thing that we would want them to consider is, and we don't feel it was fully explored in the IER itself, was to move the T-wall, the innovative T-wall, berm and riprap farther into the channel center, toward the channel center. The channel center currently is 500 feet and was authorized to about 400 feet, and because of the shallowness along the western side of the channel there are opportunities to consider for engineering and structural; however, the IER did not fully explore that, it just
basically had a statement in there saying that such a -- such a movement or location of the T-wall would not be appropriate, and so we would ask that that be revisited and the Corps actually provide adequate data to refute or support that proposal.

To that end, I would echo the sentiments forthcoming from our Louisiana Delta Chapter that represents three thousand members as well as the New Orleans group. Thank you.

MR. BARRA:

Thank you for your comments.

Harvey Stern.

MR. STERN:

Good evening. My name is Harvey Stern and I am also the Delta Chapter of the Sierra Club, and I have here a comment of Mr. Haywood Martin, who is chair of the Delta Chapter of the Sierra Club, which do in fact reflect
many of the comments that we just
heard from Jill, the field
coordinator of the Sierra Club.
I will just add a few excerpts
from this letter that I think
will elaborate on her comments.

The Sierra Club of the Delta
Chapter supports a safe hurricane
protection levee for the entire
New Orleans area including the
westbank of Jefferson Parish. We
also support the use of natural
systems such as forested to the
non-forested wetlands to add to
the aggressive barriers to the
storm surges. And we also, as
Jill mentioned, we feel that the
proposed alternative that would
take 9.6 acres of the BAC as
opposed to the 600 needs to be
reevaluated. While this is a
large decrease of the taking of
the wetlands of national
significance, we suggest that the
Corps can do better. Additional
structural changes to the eastern levee and closure compacts would avoid any wetland loss to the BAC. The Corps alternative 2 should be modified to avoid any direct or indirect impacts to the Section 404 (c) wetlands. It appears that there is adequate space to move the structure further away into the waterway so as to avoid the 404(c) wetlands as we heard expressed earlier by several folks. And 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 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. 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 to 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, as we
heard from Jill, so that all
interested parties have adequate
time to prepare substantial
comments. Those are the comments
from the Chair of the Sierra
Club. I have a couple of
personal observations about why
this project is being done in the
first place, and as we heard
referred to at least once in this
presentation, that the intent of
the project is to provide, quote,
one hundred year level of
protection to the residents of
the westbank, and the, quote, one
hundred year level of protection
and five hundred year level of
protection has been the mantra of
the Corps, certainly before
Katrina as to how to explain to
the public the kind of protection
against a level of risk of
flooding from significant rain
events. I was at at least one
public Corps meeting at which a
Corps official himself told me
after I raised the issue about
the credibility of the one
hundred year concept that the
idea of the one hundred year
storm or even talking about a one
percent chance in any given year
is misleading, it's misguided,
it's obsolete and it needs to be
reassessed, and it's my
understanding, I stand to be
corrected, that the Corps intends
to continue to use the, quote,
one hundred year level of concept
of the one hundred year level of
flood protection in this proposed
project to explain to the public
why particular projects are
needed. I would beg the Corps to
get on the fast track and find a
different way to assess risk.
The one hundred year level of
flood level of protection concept
just does not work in many
people's mind. We are talking
about reducing flood risk. I
think the credibility of the
Corps is at risk as long as it
continues to talk about the one
hundred year level of flood risk
or the five hundred year level.
There has got to be a better way
to explain risk to the public
that is credible. People's lives
are at risk. People are making
life decisions on where to live
and whether to move back based on
the Corps decisions on this
project.

MR. BARRA:

One more minute.

MR. STERN:

That's my comments. Thank

you very much.
MR. BARRA:
Okay. Thank you. Ray Champagne.

MR. CHAMPAGNE:
Yes. My name is Ray Champagne. Resident of Lafitte, member of the Sixth Ward Association for Progress. And realizing that this project is funded, I want to congratulate the people that was involved, but saying that, Crown Point, Barataria and Lafitte is going to be left out of this, and since we have been flooding for the last three storms, we were just wondering if the Corps would take into consideration this proposal that -- it's lower Jefferson Parish alternative. It's part of what the mayor was talking about, the Donaldsonville feasibility study. Well, Shaw and other people put this together, it's pretty impressing. I would like
to leave it here for the record,
and the people in Lafitte and
Barataria they just tired doing
with these graves every time high
water come in. And they feel --
like the mayor was saying, they
feel a little left out because no
money has been spent south of
this project and everything south
of this project, especially Crown
Point where the water is going to
get up against this structure,
and it's pretty impressing. It's
a real nice -- I mean, who
wouldn't like this. You would
have to be crazy not to like it.
It's very impressive, cost a lot
of money, but anything south of
that the water is going to back
up against it and the potential
for flooding in that area where
the structure is is going to be
greater, maybe not just in a
quarter of a mile, we are talking
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
and Preserve and the Bayou aux
Carpes wetlands will provide
non-structural protection and
reduce the hurricane tidal surges
before they reach the westbank
levee, and they have been
documented -- the forested
wetlands and non-forested
wetlands have been documented as
reducing the height of tidal
surges during hurricanes Rita,
Gustav and Ike, so the
non-structural protection that
the 404 (c) gives, the westbank
levee and Lafitte National Park,
which protects almost the entire
portion of the westbank of
Jefferson Parish from tidal
storms is very important. We
thank the Corps for reducing the
impacts to the 404 (c). Wetlands
from the 404 (c) wetlands from
its original plans which would
take -- which would have taken
almost 600 acres of the 404 (c)
area. One way to avoid impacts, further impacts is to modify Alternative A by moving the flood wall one hundred feet into the waterway along the eastern perimeter of the 404 (c) area.

We don't suggest that the wall be moved into the navigation channel as was alluded in the IER, but to the edge of the waterway which is 600 feet wide. The channel is -- barge channel is only 125 feet in width authorized by congress. We don't need a wider channel or congress would have authorized it, a larger channel. We request the Corps staff to consider in its engineering analysis and include in the amended IER the engineering analysis since it has environmental significance. We have been interested in all of the data gaps listed in the IER of which we find many. In fact, the section on data gaps and
uncertainties list the data note included in the draft IER as, one, source of levee material that has not been identified. Environmental surveys are not complete. Cumulative impact data are not complete. Impacts on transportation remain unknown, and one of the more important omissions is the engineering analysis that's based on a concept level design and is not complete. The last one indicates there is still time to consider some other engineering alternatives. There are many other inadequacies in the document. It appears the document was prepared in haste and that the Corps should have waited before circulating the Draft IER for public and agency comments. There are many questions to be answered and they are raised in our more detailed.
comments. The record is also not complete. Letters from EPA, the Fish and Wildlife Service sent in January were not posted on the website. There should have been a complete record of documents somewhere so the public could review the agency documents before public comment period closes at midnight tonight. Technical reports were posted during the public review period and have not been summarized in the Draft IER nor was there extra time to review them. Because of this, we ask the Corps extend the comment period for another two weeks. That will give the NGO's the opportunity to communicate with the resource agencies and get a copy of their comments and to review any new technical reports posted on the web.

We also ask the amended IER-12 be prepared and that it be
circulated for a 30 day public
review period as per the
alternative arrangements. This
document should include critical
data needed for both the Corps
and EPA decision making.
Regarding EPA's involvement, we
want to thank EPA and other
resource agencies for
recommending to the Corps a
change in the original preferred
alternative which would have
taken -- impacted over 600 acres
of this nationally significant
wetland. EPA has been a real
leader over the last 35 years in
protecting important wetland in
Jefferson Parish.

MR. BARRA:
One more minute.

DR. KOHL:
Much of the land in the
Barataria Preserve of the Lafitte
National Park was protected
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
impacts to Bayou aux Carpes.

This analysis must be completed
before EPA makes a decision on
whether to grant the Corps's
request for modification of its
404 (c) determination. In the
absence of that study, we ask EPA
to deny the Corps's request for
modification of the 404 (c)
determination. Thank you.

MR. BARRA:
Thank you. Felicia Kahn.

MS. KAHN:
Okay. Felicia Kahn, member
of the League of Women Voters of
New Orleans. The League of Women
Voters will submit comments to
the EPA regarding the protection
of wetlands and the park. We
have worked -- we have worked for
many, many years in this area and
have extensive knowledge about
it, and our statement will be
submitted before February 13. Is
that the correct date?
MR. BARRA:
Yes.

MS. KAHN:
So we thank you very much for allowing us to appear.

MR. BARRA:
Thank you for coming. Allen Hero.

MR. HERO:
I'm Allen Hero. I represent some landowners on the Mississippi River side of this complex, and I would like to commend the Corps, this idea was first presented about 15 years ago about putting the super -- at that time I don't know what they called it, the super pump, and was denied because of the cost benefit ratio I think was the criteria in that time. And so I think, you know, the Corps is trying to get -- solve this problem. There are a few issues that we are concerned about along
the Harvey Canal that I brought up in another one of these hearings is -- that was talked about briefly in this presentation on the tension area on the protected side of this flood structure, there is still some issues along the eastbank of Harvey Canal that have not been resolved and that those businesses there, even though they may have some protection, that funding and that protection has not been -- has not been taken into by the local Levee District. There is some conflict as to how those businesses are going to have protection when this is completed. Right now there is a temporary protection on the east side of Harvey Canal and there is no plan that I have heard as to how that is going to be maintained in the sense that we are supposed to be having one
hundred year protection. I don't think we are going to have that at that location, so I think that needs to be -- the Corps and the EPA or whoever altogether need to look at those issues ongoing because once this is built, I think everybody is going to think it's all taken care of but there is some issues there that have not been addressed in the view of myself and some other landowners along Harvey Canal.

The other issue that I don't know has been addressed, they talk about all of this dredging material coming out of the intracoastal waterway and moving that material some distance and redepositing it, I think it's most probably a more cost effective way of moving that material into some of the fast land adjoining intracoastal 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
place in order to address those concerns. We support 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 West Closure Complex as outlined in the IER-12 report. We feel that this alignment will provide a much needed and long awaited storm protection for the westbank of Jefferson Parish. Now, the HCIA, in cooperation with the other business organizations, commissioned an economic impact study in late 2007. That study included all of the businesses from LaPalco Boulevard south of the Hero Pumping Station. The study revealed a total employment of 1619 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 excluded companies along the upper portion of Peters Road, the Destrehan corridor or Engineers Road. The potential for economic loss in this area, a direct hit for a storm of Katrina like proportions is catastrophic. We applaud what you are doing, we support your effort. We have additional comments that we have already submitted into the record. Thank you for letting us come and to speak.

MR. BARRA:

Thank you for coming. Tom Halko.

MR. HALKO:

Good evening. My name is Thomas Halko and I live in lower Jefferson Parish, lower Lafitte, which is beyond the cone of Jean Lafitte, and, for the record, I have experience in less than four years -- four one hundred year
storms. With that being said, I would like to concur with what Mayor Kerner has stated as well as Mr. Champagne, and I think, first of all and far most that I extend my appreciation to the Corps of Engineers for all of the hard work that they have done in this region, for the EPA and for federal involvement because I think that it has made a difference as it relates to our lives and livelihood.

I think it's important, with that being said, with all due respect, I think that this proposal is somewhat shortsighted. I do believe that there should be consideration given to the concept that is in and on the board as it relates to the Donaldsonville to the Gulf levee protection. I think it's important to think about coastal restoration going hand in hand.
with levee protection, and I think that this project does not perfectly address that. This is -- is advertised as the primary protection for the New Orleans westbank area. When I think that -- it is important to think of a line of defense that is further south that perhaps is less intrusive environmentally, I think it's important to think of all of the Barataria estuary, but it is also important to note that lower Lafitte is the staging area for an offshore oil industry and represents substantial jobs and is very, very important to the infrastructure of all of the south and all of the nation, and I am personally as a property owner of Lafitte and I own property in Algiers Point, that I feel as if I am going to be adversely affected by this proposal because it's the
backwash that we will experience
and for attempting to protect a
few hundred or a few thousand
acres of pristine wetland, it may
compromise everything that is
pristine and wonderful south of
this area all of the way to Grand
Isle, and I think it's important
that -- to take note of that, and
I think sort of in a rush to
attempt to provide levee
protection and answers to people
that the totality of flood
protection is being minimized,
and I think that we need to turn
to the Dutch and look to see what
they have done and we -- they
have been able to both protect
their nation, not one hundred
year storms or five hundred year
storms, but a thousand year
storms, and have done so in
protecting the population as well
as their environment. Thank you.

MR. BARRA:
Thank you for your comment.

Okay. I believe we have heard from all of the people who signed up to speak. Okay.

Is there anyone who has not signed up who want to sign up and speak? Before we conclude, would anyone who has spoken like to add to their testimony? Yes, sir.

DR. KOHL:

I'm Barry Kohl with the Louisiana Audubon Council. There are a couple of items that I skipped over before. One is the dredging of the Algiers Canal. We're very concerned about the possibility of using dredge material from the canal and barging it to the Barataria preserve. Their preliminary information has shown that the sediments in the bottom of the canal are contaminated with several toxics that could harm the Lafitte National Park, the
ecosystem. One of the problems with the Corps is they analyze toxic sediments and its effect on humans and they use screening standards that is protective of human life, not aquatic life, and they intend to use this dredge material and put it in the National Park for erosion control, which is good but it should be clean sediments, and we are just concerned about the degradation of water quality in the park and the fact that the Corps has habitually done a very poor job of analyzing contaminated sediments and placing them in areas that would protect them from getting into open water. Thank you.

MR. BARRA:
Thank you. Anyone else? Yes, sir.

MR. CHAMPAGNE:
Realizing that Lafitte and
Barataria is the frontline, I would ask this audience and the Corps of Engineers to wish us well. Thank you.

MR. BARRA:
Thank you. Anyone else? Yes, sir.

MR. POURCIAU:
Lawrence Pourciau. I wanted to kind of expand on one of the comments that was made earlier about the hundred one year level of protection. It's my understanding, and please correct me if I am wrong, that that -- this came about from a one percent chance in any given year that we could be flooded; is that correct?

MR. BARRA:
We'll have -- someone will have to talk to you about that during the open house after this hearing.

MR. POURCIAU:
Okay. Well, that is my understanding of it, and if it is in fact the case, it probably does the Corps more of a disservice to anyone, of course the citizens of New Orleans, you know, for not benefitting from this because mathematically the way that works out is, you know, in 30 years there is a 30 percent chance that in any given one of those 30 years that you could experience a flood. Now, that means there is a 70 percent chance that you would not, but almost one in three chance that you would in fact experience a flooding situation is kind of scary, I think, and what this does is it makes the people feel safe and when a storm that is too big comes, it will flood and then of course the Corps will be blamed; when in fact congress didn't authorize enough funding.
for the Corps to build a wall
that was high enough, and it
won't be the Corps fault but they
will be the one that the finger
was pointed at and by using this
terminology it does kind of make
most people feel safe, but, in
fact, you know, at some point
down the road, hopefully never,
but at some point down the road
guess who is going to get the
blame, the Corps, and I would
like to see the Corps adopt
something that puts pressure on
congress to maybe help authorize
a little more funding because I
see funding given out everywhere
lately to all areas of the
country yet I do still see, you
know, why can't funding be
approved for, you know, one of
the oldest cities and most
historic cities in America.
Thank you for letting me speak.

MR. BARRA:
Thank you. Yes, sir.

MR. MONDINO:

Gabriel Mondino. I would like to add to my comment one thing which I had recalled that I failed to mention.

The EPA mentioned in the presentation that the -- when the 404 (c) or 404 legislation was enacted and the regulations were enacted that they did not foresee the need to -- they did not include a mechanism for making modifications to 404 (c) wetland, and I think that that is very, very pertinent because in crafting legislation and crafting legislation about especially environmentally affected areas, we know avenues made to make those modifications, the regulations and the statutes that fail to include those are clear and that if those modifications aren't envisioned then those
modifications should not be made, so my addition to my entire comment is that with respect to the floodwall affecting the 404 (c) area, I think that that portion of the plan needs to be roundly denied because of the logic that went into creating the 404 impact in and of itself. That's the only additional comment.

MR. BARRA:

Thank you. Anyone else? Okay. If there are no further comments or issues to be addressed, I will conclude this public hearing. Representatives of EPA and the Corps of Engineers will remain in this room to informally answer questions after the conclusion of this hearing. It is now approximately 7:57 p.m. on February 11, 2009 and this public hearing is hereby closed.

Thank you for coming.
(Whereupon the hearing was concluded at 7:57 p.m.)
REPORTER'S CERTIFICATE

I, RACHEL Y. TORRES, a Certified Court Reporter, do hereby certify that the within witness, after having been first duly sworn to testify to the truth, did testify as hereinabove set forth.

That the testimony was reported by me in shorthand and transcribed under my personal direction and supervision, and is a true and correct transcript, to the best of my ability and understanding; that I am not of counsel, not related to counsel or the parties hereto, and in no way interested in the outcome of this event.

RACHEL Y. TORRES, CCR, RPR
CERTIFIED COURT REPORTER
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February 11, 2009

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ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OPP-2008-0650; FRL-6398-6]

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: Nathaniel R. Martin, Field and External Affairs Division (7506P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., N.W., Washington, DC 20460–0001; telephone number: 703-305-6475; e-mail address: martin.nathaniel@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.

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 U.S. construction of 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 west by Bayou Barataria (Gulf Intracoastal Waterway), on the south by Bayou Barataria and Bayou des Families, 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 top 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 1998 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.nolaenviro.com/projects/usage/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.

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) 395–5687, or via fax at 202–395–5167 or via Internet at Nicholas.A.Fraser@omb.eop.gov and to Judith-Her@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: 3060–0753.
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
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: 6:00 p.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-u.usace.army.mil
www.nolaenvironmental.gov
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Meeting presentation will:
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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: 5:30 – 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 mnenvironmental@usace.army.mil

Learn more at www.nolaenvironmental.gov
Building Strong

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 O'Ke School  
#1 Lynn O'Ke 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
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.
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 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
Ready to catch some Zulu coconuts? Or other crafts?
Mardi Gras photos: Start your own:  See: NOLA, TP & Users'
Full coverage: Parade Schedule | About Mardi Gras | Forum | FAQs

Police identify mother who threw newborn into lake; say she will be charged with first-degree murder 3:35 AM
20-year-old told police she tried to abort, adoption counslng,
Qualifying opens in for state appeals court posts and for Jefferson, Gretna and Westwego offices 11:40 AM
Apartment complex approved at former site of St. Aloysius High

New Orleans Hornets chat live now 8:18 AM
Q&A with Times-Picayune beat reporter John Reid

Trent Johnson’s LSU Tigers have more
Police identify mother who threw newborn into lake; say she will be charged with first-degree murder

29-year-old Todd D. Wood is charged with murder, abortion, and battery. 

- 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 School.
- Trent Johnson's LSU Tigers have more important things to worry about than...
Ready to catch some Zulu coconuts? | Or other crafts?
Mardi Gras photos. Share yours! | See: NOLA, TP & Users' FAQs
Full coverage: Parade | The Latest | About Mardi Gras | Forum | FAQs

Share Carnival tips!

Police identify mother who threw newborn into lake; say she will be charged with first-degree murder
20-year-old told police she tried to get abortion, adoption counseling
• Qualifying opens in for state appeals court posts and for Jefferson, Gretna and Westwego offices 11:30 AM
• Apartment complex approved at former site of St. Aloysius High School 9:45 AM

New Orleans Hornets chat live now
8:16 AM
Q&A with Times-Picayune beat reporter John Reid

Trent Johnson’s LSU Tigers have more important things to worry about than home ranked 10th in SEC

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Health plans
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
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 floatant 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
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
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,

[Signature]
James F. Breaux
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
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
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
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

[Signature]

Gerald J. Huffman, Jr.
President
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-I2? 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 JLNHP. 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 oppose 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.

B. Kohl, LAC. 2/11/09
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 withheld 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 JLNHP. 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.

B. Kohl. LAC. 2/11/09
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,

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

B. Kohl, LAC. 2/11/09
References:


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


February 11, 2009

Mr. Gib Owen, PM-RS
U.S. Army Corps of Engineers
CEMVN-PM-RS
PO Box 60267
New Orleans, LA 70160-0267
mvnenvironmental@usace.army.mil

Barbara Keeler (6WQ-EC)
EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733
keeler.barbara@epa.gov

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
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
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Gulf Restoration Network
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Steven Peyronnin, Coalition to Restore Coastal Louisiana
Paul Kemp, National Audubon Society
Haywood Martin, Delta Chapter Sierra Club.
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
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  
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Mr. Garret Graves  
Chairman  
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DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
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OCT 22 2009

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

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

Dear Mr. Starfield:

The purpose of this letter is to follow up on the discussion you had with Lt. Colonel Jernigan on October 9, 2009, concerning encroachments into the Jean Lafitte National and Historical Park property in the Bayou aux Carpes unit (JLNHP) by Gulf Intracoastal Constructors (GIC). Gulf Intracoastal Constructors is a contractor hired by the US Army Corps of Engineers (Corps) to construct a portion of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System. As you are aware, the Bayou aux Carpes is designated by the Environmental Protection Agency (EPA) as a Clean Water Act 404(c) area. During the phone call on October 9, 2009, we promised to provide in writing a description of what happened, why it happened, and what steps the Corps and its contractors were taking to ensure that no further encroachment would occur. We take our commitment to the EPA, the National Park Service (NPS), and the nation to avoid impacts to the 404(c) area very seriously and up until this event believed that we had taken adequate precautions in requiring the contractor’s avoidance of impacts to the 404(c) area. As you will read in this letter, we are taking additional measures to ensure that this type of event does not occur again.

What happened: The Corps acquired rights to a parcel of property within the JLNHP that was 100 feet by 4,200 feet. Gulf Intracoastal Constructors was to begin clearing of the property in 30-foot swaths starting at the eastern edge and working further to the west with each pass. Approved plans called for only 90 feet of the property to be cleared, thus leaving a 10-foot buffer of undisturbed property between the Corps project site and the NPS boundary. After the first 30-foot swath was cleared, the contractors plan was to stake off the 10-foot boundary line every 50 feet. This was to be done to give the clearing crew a distinct “do not cross” boundary. The contractor’s surveyor did not place stakes along the 10-foot buffer as planned, but instead offset the stakes in the area cleared during pass number 1. A tree clearing machine operator was making the second pass when the encroachment occurred. Since the stakes had been offset, the operator did not have a hard visual line to follow. The encroachment was discovered by the contractor’s survey crews as part of their daily survey effort. Upon discovery of the
encroachment, clearing work was halted and the Corps on-site Construction Division staff was notified. Additional surveys, conducted since October 8, 2009, have discovered that a total of six encroachments occurred. Encroachments range in size from 9 square feet (sq. ft.) to 785 sq. ft. and resulted in a total of 1,750 sq. ft. of NPS property being adversely impacted. The area impacted is designated as part of the 404(c).

*Steps being taken to prevent future encroachments:* A plan has been developed by GIC where the contractor will put in place a solid line of temporary construction fencing along the entire 4,200 linear foot of the project site at the 10-foot do not cross boundary. This fencing will be installed prior to land clearing operations starting again. After installation of the fencing, the contractor will provide a survey drawing indicating the actual area cleared, and we will provide EPA and NPS with copies. Our expectation at this time is that total land cleared for this work will be less than the 9.7 acres approved by the EPA in your modification to the Bayou aux Carpes 404(c) final determination. Fencing will be maintained by the contractor until all construction activities in the area are completed.

In addition to the physical marking of the boundary, New Orleans District (CEMVN) Environmental staff will meet with project staff again and reemphasize to them the importance of the 404(c) program, the sanctity of the 404(c)/NPS boundary, and the absolute necessity that no additional encroachments occur. The Senior Project Manager, Kevin Wagner, will hold a similar meeting with GIC’s senior leadership. On site CEMVN Construction Division staff will emphasize the importance of this issue during future team meetings with GIC staff and will provide a full time inspector for the remainder of the clearing operation.

*Site Restoration:* The area to be restored is 1,750 sq. ft. and will be restored by GIC with oversight by the NPS, EPA, and the Corps. Based upon discussions, GIC’s preliminary restoration plans will consist of the following: leveling the existing ground, as needed, with the use of hand tools to remove any ruts, mounds, or irregularities created by heavy equipment that entered the area; GIC will plant appropriate bottomland hardwood trees, approximately three gallons in size on ten foot centers with appropriate predator guards installed. Approximately 70 trees will be planted in the impacted areas. Tree species and specific planting locations will be determined by GIC in cooperation with the NPS, EPA, and CEMVN Environmental staff. Gulf Intracoastal Constructors is to finalize a site restoration plan and present it for approval by NPS and EPA.

It is also our understanding that GIC’s plans will be to complete a restoration report one year after the restoration effort is complete to document the success of the plantings. If success rate is below the percentage approved by the NPS, additional restoration work will be completed to meet the plan objectives.
Temporal Mitigation: Gulf Intracoastal Constructors, in consultation with the NPS and EPA, will determine the proper compensatory mitigation required for this violation. All mitigation efforts are to be completed on NPS property. The contractor will complete the required compensatory mitigation according to the approved NPS/EPA plan and submit written documents to the Corps documenting the plan and demonstrating that the plan has been completed as per the agreement with the NPS.

If you have any questions or concerns, please contact Ms. Joan Exnicios at: US Army Corps of Engineers, CEMVN-PM-R, Attn: Ms. Joan Exnicios, Chief of the Environmental Planning and Compliance Branch, P.O. Box 60267, New Orleans, Louisiana, 70160-0267. Ms. Exnicios can be contacted by E-mail: joan.m.exnicios@usace.army.mil or by phone at (504) 862-1760.

Sincerely,

Alvin B. Lee
Colonel, US Army
District Commander
Copy Furnished:

Mr. Garret Graves  
Chairman  
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Mr. David Bindewald  
President  
Southeast Louisiana Flood  
Protection Authority - West Bank  
7001 River Road  
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Mr. Jerry Spohrer  
Executive Director  
West Jeff Levee District  
7001 River Road  
Marrero, Louisiana  70072

Mr. David Muth  
Jean Laffite National and Historical Park and Preserve  
419 Decatur Street  
New Orleans, Louisiana  70130-1035
availability, it plans to consider whatever data are available.

As part of the Agency’s evaluation, it plans to examine, at a minimum, the following classes of facilities: hazardous waste generators, hazardous waste recyclers, metal finishers, wood treatment facilities, and chemical manufacturers. This list may be revised as the Agency’s evaluation proceeds.

EPA is currently scheduled to complete and publish in the Federal Register a notice addressing additional classes of facilities the Agency plans to evaluate regarding financial responsibility requirements under CERCLA Section 108(b) by December 2009, and, at that time, will solicit public comment.

VII. Conclusion

Based upon the Agency’s analysis and review, it concludes that hardrock mining facilities, as defined in this notice, are those classes of facilities for which EPA should identify and first develop requirements pursuant to CERCLA Section 108(b). EPA will carefully examine specific activities, processes, and/or metals and minerals in order to determine what proposed financial responsibility requirements may be appropriate. As part of this process, EPA will conduct a close examination and review of existing Federal and State authorities, policies, and practices that currently focus on hardrock mining activities.50

Dated: July 10, 2009.

Lisa P. Jackson, Administrator.

[FR Doc. E9–16819 Filed 7–27–09; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FR–L–8932–9]

Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes in Jefferson Parish, LA

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This is a notice of EPA’s Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes to allow for the discharge of dredged or fill material for the purpose of the construction of the West Closure Complex as part of the larger flood protection project for the greater New Orleans area. EPA believes that this Final Determination for modification achieves a balance between the national interest in reducing overwhelming flood risks to the people and critical infrastructure of south Louisiana while minimizing any damage to the Bayou aux Carpes CWA Section 404(c) site to the maximum possible degree in order to avoid unacceptable adverse effects.

DATES: Effective Date: The effective date of the Final Determination for Modification was May 28, 2009.

ADDRESSES: U.S. Environmental Protection Agency, Office of Water, Wetlands Division, Mail code 4502T, 1200 Pennsylvania Ave, NW., Washington, DC 20460. The following documents used in the Bayou aux Carpes modification are listed on the EPA Wetlands Division Web site at http://www.epa.gov/owow/wetlands/regs/404c.html: New Orleans District of the Corps letter dated November 4, 2008, requesting that EPA modify the Bayou aux Carpes CWA Section 404(c) designation; Public Notice of Proposed Determination to modify the Bayou aux Carpes CWA Section 404(c) designation published in the Federal Register on January 14, 2009; April 2, 2009, Recommended Determination (RD) for modification of the Bayou aux Carpes 404(c) action; and the May 28, 2009, Modification of the 1985 Clean Water Act Section 404(c) Final Determination for Bayou aux Carpes. Additional documents that are related to the Bayou aux Carpes modification can be located on the U.S. Army Corps of Engineers New Orleans District Web site at http://www.nolaenvironmetal.gov/projects/usace_levee/IER.aspx?IERID=12.

FOR FURTHER INFORMATION CONTACT: Mr. Clay Miller at (202) 566–1365 or by e-mail at miller.clay@epa.gov. Additional information and copies of EPA’s Final Determination for Modification are available at http://www.epa.gov/owow/wetlands/regs/404c.html or http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.

SUPPLEMENTARY INFORMATION: Section 404(c) of the Clean Water Act (CWA) (33 U.S.C. 1251 et seq) authorizes EPA to prohibit, restrict, or deny the specification of any defined area in waters of the United States (including wetlands) as a disposal site for the discharge of dredged or fill material whenever it determines, after notice and opportunity for public hearing, that such discharge into waters of the United States will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

Congress directed the U.S. Army Corps of Engineers (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. One section of this much larger project is within the Bayou aux Carpes area that is subject to a 1985 EPA CWA Section 404(c) action that prohibited the discharge of dredged or fill material in the Bayou aux Carpes site south of the New Orleans metro area. On November 4, 2008, the New Orleans District of the Corps requested a modification of the Bayou aux Carpes CWA Section 404(c) designation to accommodate discharges to the Bayou aux Carpes wetlands associated with the proposed enhanced levee system in Jefferson Parish, Louisiana.

In evaluating the Corps of Engineers proposal for modification of the 1985 Bayou aux Carpes CWA Section 404(c) Final Determination, the key elements of a Section 404(c) process were followed. These include a hearing and opportunity for the public to provide written comments, preparation and submittal of a Recommended Determination proposed by EPA Region 6 to EPA Headquarters, and a Final Determination for Modification issued by EPA Headquarters.

Background

On October 16, 1985, EPA issued a Final Determination pursuant to Section 404(c) of the Clean Water Act restricting the discharge of dredged or fill material in the Bayou aux Carpes site, Jefferson Parish, Louisiana, based on findings that the discharges of dredged or fill material into that site would have unacceptable...
adverse effects on shellfish beds and fishery areas (including spawning and breeding areas), wildlife, and recreational areas. 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 FR 47267 (November 15, 1985). The first exception was for discharges associated with the completion of the Corps modified design for the Harvey Canal—Bayou Barataria Levee Project. The second exception was for discharges associated with routine operation and maintenance of the Southern Natural Gas Pipeline. The third exception covered discharges associated with EPA approved habitat enhancement activities. The 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.

After completion of the Final Determination, several requests for modifications were reviewed by EPA. The one request that was granted was for an emergency exception to bury an existing pipeline deeper via horizontal drilling techniques as a response to unstable soil conditions and a leaking pipeline. Shell Pipe Line Corporation (Shell) petitioned EPA for reconsideration of exceptions identified in EPA's 1985 Final Determination concerning the Bayou aux Carpes site on December 18, 1991. Shell requested a modification to the Final Determination in order to (1) temporarily discharge dredged or fill material associated with performing emergency work to relocate an existing below ground pipeline located in the restricted Section 404(c) area; and (2) exclude from the Bayou aux Carpes Section 404(c) restriction future discharges associated with routine operation and maintenance of this pipeline. On February 28, 1992, Shell's request for modification was approved by the EPA Assistant Administrator for Water 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 granted in the 1985 Final Determination (57 FR 3757).

As a result of the residential, commercial, and industrial damage 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 (FEMA). The overall Corps project to provide protection to southern Louisiana 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. One section of this much larger project is within the Bayou aux Carpes area. The Corps' proposal for providing increased hurricane and storm damage risk reduction for this area does not fall within one of the previously established exceptions to the Section 404(c) Final Determination. Since the construction of the Corps' project would result in discharges of dredged or fill material within the Bayou aux Carpes site, a request for modification of 1985 EPA's Final Determination was submitted for consideration and final decision.

On November 4, 2008, the New Orleans District of the Corps requested a modification to the 1985 EPA action, which prohibited the discharge of dredged or fill material in the Bayou aux Carpes site south of the New Orleans metropolitan area. The Corps requested that EPA modify the Bayou aux Carpes CWA Section 404(c) designation to accommodate discharges to the Bayou aux Carpes wetlands associated with the proposed enhanced levee system in Jefferson Parish, Louisiana. The project known as the West Closure Complex proposes the construction of a ``T-wall'' style floodwall in lieu of an earthen levee in order to minimize the footprint. A barrier 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. The floodwall would be built from the water side to reduce construction impacts.

The placement of the wall within a 100 foot by 4.200 foot corridor on a previously impacted area of the Bayou aux Carpes site, along with the commitment by the Corps to augment the design as necessary to enhance the hydrology of the Bayou aux Carpes 404(c) to offset any potential impacts due to construction, provides the most practical approach from an environmental perspective while ensuring the 100-year level of risk reduction is accomplished. Construction of the proposed action would impact less than 10 acres within the Bayou aux Carpes 404(c) boundary.

EPA carefully reviewed the proposal and the information submitted by the New Orleans District of the Corps, comments received pursuant to the notice published in the Federal Register and public hearing held in New Orleans, and the existing Bayou aux Carpes administrative record. On January 14, 2009, EPA posted a notice in the Federal Register announcing a public comment period on the request by the New Orleans District of the Corps to amend the 1985 Bayou aux Carpes CWA Section 404(c) Final Determination. There were 25 written comments received from individuals and organizations that included opinions about whether the modification should be granted or denied, consideration of a project alternative that would avoid all impacts to the Bayou aux Carpes site, the need for a detailed mitigation plan to be included, the need to thoroughly research and plan mitigation and augmentation features, and the need for a long-term monitoring plan. A public hearing was held on February 11, 2009. Thirteen people spoke at the hearing, and raised issues about the larger plans for providing upgraded hurricane and storm damage risk reduction for a portion of the West Bank and Vicinity Hurricane Protection Levee system as well as whether EPA should grant the modification.

Conclusion

The West Closure Complex project sited on the Bayou aux Carpes area is a part of a much larger project with the intent to reduce flood risks to the 250,000 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 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 dual objectives. 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 agreed with the Corps' conclusion that...
there is no reasonable and less environmentally damaging practicable alternative for achieving the Congressional directive than to locate a sector gate adjacent to the Bayou aux Carpes site. 

In consideration of the above information, EPA believes that compelling circumstances justify a modification of the 1985 Bayou aux Carpes CWA Section 404(c) designation, that there are no less environmentally damaging practicable 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. Therefore, EPA is modifying the 1985 Bayou aux Carpes CWA 404(c) Final Determination with conditions to allow for discharges associated with construction of the West Closure Complex on the Bayou aux Carpes site as described in the Corps’ November 4, 2008, request for modification. EPA believes that this Final Determination for modification achieves a balance between the national interest in reducing overwhelming flood risks to the people and critical infrastructure of south Louisiana while minimizing any damage to the Bayou aux Carpes CWA Section 404(c) area to the maximum degree possible in order to avoid unacceptable adverse effects.


Michael H. Shapiro, Acting Assistant Administrator for Water.

FOR FURTHER INFORMATION CONTACT:
Katie Connors, Environmental Engineer, (617) 918–3722; Municipal Assistance Unit (CMU), Environmental Engineer, (617) 918–2522; Office of Ecosystem Protection (OEP), 1764, Municipal Assistance Unit (CMU), Environmental Engineer, (617) 918–

SUPPLEMENTARY INFORMATION:

In accordance with ARRA section 1605(c) and pursuant to section 1605(b)(2) of Public Law 111–5, Buy American requirements, EPA hereby provides notice that it is granting a project waiver to the Sharon Elementary School Water System (the “System”) in Sharon, Vermont for the acquisition of NSF–55 Class A certified Ultra Violet (UV) disinfection equipment. This is project specific waiver and only applies to the use of the specified product for the ARRA funded project being proposed. Any other ARRA project that may wish to use the same product must apply for a separate waiver based on project specific circumstances. The UV disinfection equipment under consideration is manufactured outside of the United States by two companies based in Canada and meets the water system’s technical and design specifications. The Acting Regional Administrator is making this determination based on the review and recommendations of the Municipal Assistance Unit. The Sharon Elementary School Water System has provided sufficient documentation to support its request. The Assistant Administrator of the Office of Administration and Resources Management has concurred on this decision to make an exception to section 1605 of the ARRA. This action permits the purchase of specific UV disinfection equipment for the proposed project being implemented by the Sharon Elementary School Water System.

DATES: Effective Date: July 17, 2009.

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The EPA is hereby granting a project waiver of the Buy American Requirement of the American Recovery and Reinvestment Act of 2009 (ARRA) to the Sharon Elementary School Water System, Sharon, VT.

ENVIRONMENTAL PROTECTION AGENCY

Notice of a Project Waiver of Section 1605 (Buy American Requirement) of the American Recovery and Reinvestment Act of 2009 (ARRA) to the Sharon Elementary School Water System, Sharon, VT

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The EPA is hereby granting a project waiver of the Buy American requirements of ARRA section 1605 under the authority of section 1605(b)(2) [manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality] to the Sharon Elementary School Water System in Sharon, Vermont for the purchase of NSF–55 Class A certified Ultra Violet (UV) disinfection equipment. This is project specific waiver and only applies to the use of the specified product for the ARRA funded project being proposed. Any other ARRA project that may wish to use the same product must apply for a separate waiver based on project specific circumstances. The UV disinfection equipment under consideration is manufactured outside of the United States by two companies based in Canada and meets the water system’s technical and design specifications. The Acting Regional Administrator is making this determination based on the review and recommendations of the Municipal Assistance Unit. The Sharon Elementary School Water System has provided sufficient documentation to support its request. The Assistant Administrator of the Office of Administration and Resources Management has concurred on this decision to make an exception to section 1605 of the ARRA. This action permits the purchase of specific UV disinfection equipment for the proposed project being implemented by the Sharon Elementary School Water System.

DATES: Effective Date: July 17, 2009.

FOR FURTHER INFORMATION CONTACT: Katie Connors, Environmental Engineer, (617) 918–1658, or David Chin, Environmental Engineer, (617) 918–1764, Municipal Assistance Unit (CMU), Office of Ecosystem Protection (OEP), U.S. EPA, One Congress Street, CMU, Boston, MA 02114.

SUPPLEMENTARY INFORMATION:

In accordance with ARRA section 1605(c) and pursuant to section 1605(b)(2) of Public Law 111–5, Buy American requirements, EPA hereby provides notice that it is granting a project waiver to the Sharon Elementary School Water System (the “System”) in Sharon, Vermont for the acquisition of NSF–55 Class A certified Ultra Violet (UV) disinfection equipment manufactured outside of the United States.

Section 1605 of the ARRA requires that none of the appropriated funds may be used for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States, or unless a waiver is provided to the recipient by the head of the appropriate agency, here EPA. A waiver may be provided if EPA determines that (1) Applying these requirements would be inconsistent with the public interest; (2) iron, steel, and the relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron, steel, and the relevant manufactured goods produced in the United States will increase the cost of the overall project by more than 25 percent.

The State of Vermont requires that water supply installations must comply with the Vermont Standards for Water System Design, Construction and Protection (Vermont Water Supply Rule—Chapter 21). In order to meet these standards the State of Vermont requires public water systems using UV disinfection to use National Sanitation Foundation (NSF) Standard 55 (Ultraviolet Microbial Water Treatment Systems) Class A certified UV equipment. The State of Vermont, Agency of Natural Resources, Water Supply Division (VTANR) has identified three lines of UV disinfection systems with NSF–55 Class A certification, all manufactured in Canada. Two of the three include the UV Pure Hallett 15xs ultraviolet water system, as well as the Trojan Technologies Sterilight SPV 200 series units. The design engineer and the VTANR have conducted research and determined that there are no domestic manufacturers that have NSF–55 Class A certification at the time of this waiver request.

The design engineer for the System indicated that he chose to use four Hallett 15xs (15 gpm) UV units for the school buildings and one Sterilight SPV 200 (2 gpm) UV unit for a remote location which receives its water supply from the school well. The designs also took into account the limited space available for retrofitting the water supply and distribution systems, as well as the attributes of the specific equipment. The estimated cost for all of the UV equipment for the proposed project was under $10,000.

The System’s submission clearly articulates functional reasons for its technical specifications and requirements, and has provided sufficient documentation that the relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantity and of a satisfactory quality to meet its technical specifications.

The April 28, 2009 EPA HQ Memorandum, “Implementation of Buy American provisions of Public Law 111–5, the ‘American Recovery and Reinvestment Act of 2009’”, defines reasonably available quantity as “the quantity of iron, steel, or relevant manufactured good is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project