

ADDENDUM TO
DRAFT INDIVIDUAL ENVIRONMENTAL REPORT
PRE-APPROVED CONTRACTOR FURNISHED BORROW MATERIAL
JEFFERSON, ORLEANS, ST. BERNARD, IBERVILLE, AND PLAQUEMINES
PARISHES, LOUISIANA,
AND HANCOCK COUNTY, MISSISSIPPI
IER #19



**US Army Corps
of Engineers®**

JANUARY 2008

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1. Introduction

Pursuant to Alternative Arrangements to the National Environmental Policy Act (NEPA; 40 CFR §1506.11) established with the Council on Environmental Quality (CEQ) after Hurricanes Katrina and Rita in 2005, the U.S. Army Corps of Engineers (USACE) Mississippi Valley Division, New Orleans District (CEMVN) is publishing this Addendum to address and respond to comments regarding draft Individual Environmental Report #19 (IER #19) received during the public review and comment period. Draft IER #19, entitled Pre-Approved Contractor Furnished Borrow Material, evaluated the potential impacts associated with the proposed excavation of nine Pre-Approved Contractor Furnished borrow areas. The document was made available to the public on 2 November 2007. The public review and comment period ended on 6 December 2007.

Distribution of the draft IER for review and comment included mailing the document to Federal and State agencies, and parties that requested the document. In addition, the draft IER was and is still available at www.nolaenvironmental.gov. A public meeting focused on borrow issues requested by two non-governmental organizations (NGOs) was held on 10 December 2007. Attendees at this and other public meetings were provided an opportunity to ask questions and provide comments regarding the proposed actions.

Both written and oral comments received during the public review period were reviewed by CEMVN staff and considered when revising the draft IER. Although no major changes to the draft IER or the Interim Decision were warranted or conducted as a result of the public review, minor revisions of the text have been made. Changes include minor clarifications and inclusions of additional information as a result of the comments received during the public review period.

Verbal and written comments and CEMVN responses are presented in Sections 2 and 3, respectively.

2. Agency Comments

CEMVN has and will continue to coordinate with government agencies throughout the Alternative Arrangements process. The following agency correspondence is included for reference.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506
August 7, 2006

Colonel Richard P. Wagenaar
District Commander
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Colonel Wagenaar:

As you know, the U.S. Fish and Wildlife Service (Service) is assisting the U.S. Army Corps of Engineers (Corps) in assessing impacts of, and mitigation requirements for, borrow sites which are needed to complete authorized improvements, and to construct Federal and non-Federal hurricane/flood protection levees in southern Louisiana. Those improvements to hurricane and flood control projects are authorized by the Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico (Public Laws 109-148, PL 84-99 and PL 109 234 (4th supplemental)). This letter is provided in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), Fish and Wildlife Coordination Act (FWCA, 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Migratory Bird Treaty Act (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), but it does not constitute the final report of the Secretary of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act.

Through the efforts of Task Force Guardian, the Corps has restored Hurricane Katrina-damaged hurricane/flood protection projects to their authorized or previously permitted/constructed protection levels. Identification of borrow areas needed to complete those repairs utilized a protocol that prioritized selection of those sites in the following order: existing commercial pits, upland sources, previously disturbed/manipulated wetlands within a levee system, and low-quality wetlands outside a levee system. The Service supports the use of such protocols to avoid and minimize impacts to wetlands and bottomland hardwoods within project areas. Avoidance and minimization of those impacts helps to provide consistency with restoration strategies and compliments the authorized hurricane protection efforts. Such consistency is also required by Section 303(d)(1) of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

Accordingly, the Service recommends that prior to utilizing borrow sites every effort should be made to reduce impacts by using sheetpile and/or floodwalls to increase levee heights wherever feasible. In addition, the Service recommends that the following protocol be adopted and utilized to identify borrow sources in descending order of priority:

1. Permitted commercial sources, authorized borrow sources for which environmental clearance and mitigation have been completed, or non-functional levees after newly constructed adjacent levees are providing equal protection.
2. Areas under forced drainage that are protected from flooding by levees, and that are:
 - a) non-forested (e.g., pastures, fallow fields, abandoned orchards, former urban areas) and non-wetlands;
 - b) wetland forests dominated by exotic tree species (i.e., Chinese tallow-trees) or non-forested wetlands(e.g., wet pastures), excluding marshes;
 - c) disturbed wetlands (e.g., hydrologically altered, artificially impounded).
3. Sites that are outside a forced drainage system and levees, and that are:
 - a) non-forested (e.g., pastures fallow fields, abandoned orchards, former urban areas) and non-wetlands;
 - b) wetland forests dominated by exotic tree species (i.e., Chinese tallow-trees) or non-forested wetlands(e.g., wet pastures), excluding marshes;
 - c) disturbed wetlands (e.g., hydrologically altered, artificially impounded).

Notwithstanding this protocol, the location, size and configuration of borrow sites within the landscape is also critically important. Coastal ridges, natural levee flanks and other geographic features that provide forested/wetland habitats and/or potential barriers to hurricane surges should not be utilized as borrow sources, especially where such uses would diminish the natural functions and values of those landscape features.

To assist in expediting the identification of borrow sites, the Service recommends that immediately after the initial identification of a new borrow site the Corps should initiate informal consultation with the Service regarding potential impacts to federally listed threatened or endangered species. To aid you in complying with those proactive consultation responsibilities, the Service has enclosed a list of threatened and endangered species and their critical habitats within the coastal parishes of the New Orleans District.

The Service offers the following additional recommendations for reducing borrow site impacts on fish and wildlife resources and, where feasible, enhancing those resources. However, these additional recommendations should not be implemented if they would result in the expansion of existing borrow pits or construction of new borrow pits in wetlands or bottomland hardwoods.

1. A minimum of 30 percent of the borrow pits' edge should slope no greater than 5 horizontal (H):1 vertical (V), starting from the water line down to a depth of approximately 5 feet.

2. Most of the woody vegetation removed during clearing and grubbing should be placed into the deepest parts of the borrow pits and the remaining debris should be placed in the water along the borrow pit shorelines, excluding those areas where the 5H:1V slope, per recommendation 1, have been constructed.
3. Following construction, perimeter levees (if constructed) around each borrow pit should be gapped at 25-foot intervals with an 8-foot-wide breach, the bottom elevation of which should be level with the adjacent natural ground elevation.

When avoidance and minimization of bottomland hardwood and wetland impacts is not practicable, all unavoidable net losses of those habitats should be fully offset via compensatory mitigation. Such compensatory mitigation should be sited within the watershed and/or hydrologic unit where the impact occurred, and should be completed concurrently with borrow operations, or as soon thereafter as possible.

The combined need for borrow necessary to complete authorized improvements to and construction of Federal and non-Federal hurricane/flood protection levees, and the potential construction of levees capable of withstanding a category 5 hurricane, will require substantial amounts of borrow. It is highly likely such amounts would exceed local availability. In the case of ongoing hurricane/flood protection projects (e.g., Morganza to the Gulf) the search for levee-building material has been conducted primarily on project-by-project basis. In the context of such project-by-project searches for borrow material, the least-expensive and easiest sources of borrow material are usually located within wetlands and/or bottomland hardwoods, adjacent to the proposed levee. Such on-site sources, however, often involve adverse impacts to wetlands, thus exacerbating the overall wetland loss problem in all coastal basins, especially those in the deltaic plain of southeast Louisiana. In short, while such on-site sources are relatively inexpensive, they will frequently be inconsistent with coastal restoration efforts and, to the extent that wetlands will be adversely impacted, use of those sites will be counterproductive with respect to minimizing wetland impacts and attaining the goal of increasing non-structural hurricane protection within a sustainable ecosystem.

Large-scale, off-site borrow sources could have the potential to reduce environmental impacts from levees and expedite project-by-project environmental review. Such potential "programmatic" borrow sources could include uplands along the Mississippi River, beneficial use of sediments dredged for navigation purposes (including the mining of disposal sites), the Mississippi River, and offshore deposits (e.g., Ship Shoal). As part of the planning process, we recommend that the Corps begin investigating the practicability of various large-scale, off-site borrow sources and actively involve all resource agencies with the Protection and Restoration Office's Borrow Team efforts.

Programmatic planning would be essential to identify borrow sites of acceptable quantity and quality, while avoiding and/or minimizing adverse environmental impacts. We therefore recommend that a plan be developed that integrates borrow resources, uses, and needs for various programs and activities. Guiding principles should be developed to identify borrow resources, borrow-site designs, and prioritize uses to avoid competing for resources, maximize benefits with those resources, and avoid adverse environmental impacts.

We appreciate the opportunity to provide this planning-aid letter and would be pleased to assist your agency in further identification of potential borrow sources. Should you or your staff have any questions regarding this letter, please contact David Walther (337/291-3122) of this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell C. Watson". The signature is fluid and cursive, with a large initial "R" and a long horizontal flourish extending to the right.

Russell C. Watson
Supervisor
Louisiana Field Office

Enclosure

cc: National Marine Fisheries Service, Baton Rouge, LA
EPA, Dallas, TX
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources, CMD, Baton Rouge, LA
LA Dept. of Natural Resources, CRD, Baton Rouge, LA

Threatened and Endangered Species in Coastal Louisiana – FWS Responsibility

MAMMALS

Bear, Louisiana*
(*Ursus americanus luteolus*)
Manatee, West Indian
(*Trichechus manatus*)

GENERAL DISTRIBUTION IN LOUISIANA

T Entire state
E Lake Pontchartrain & tributaries on North shore;
rare along Gulf coast

BIRDS

Eagle, bald
(*Haliaeetus leucocephalus*)
Pelican, brown
(*Pelecanus occidentalis*)
Plover, piping**
(*Charadrius melodus*)

Woodpecker, red-cockaded
(*Campephilus principalis*)

T Entire state
E Coast
T Coast

E Entire state except Delta

REPTILES

Tortoise, gopher
(*Gopherus polyphemus*)
Turtle, ringed map (=sawback)
(*Graptemys oculifera*)
Turtle, loggerhead sea
(*Caretta caretta*)

T Washington, St. Tammany, and Tangipahoa
Parishes
T Pearl and Bogue Chitto Rivers
T Potential Nesting on Chandeleuer Is.

FISH

Sturgeon, Gulf**
(*Acipenser oxyrinchus desotoi*)
Sturgeon, pallid
(*Scaphirhynchus albus*)

T Pearl River & Lake Pontchartrain tributaries
E Mississippi River & tributaries

INVERTEBRATES

Mussel, inflated heelsplitter
(*Potamilus inflatus*)

T Amite River

PLANTS

Louisiana quillwort
(*Isoetes louisianensis*)

E Washington and St. Tammany Parishes

*Indicates proposed critical habitat

**Indicates designated critical habitat

Enclosure



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506
November 1, 2007

Colonel Alvin B. Lee
District Engineer
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Colonel Lee:

Please reference the Individual Environmental Report (IER) 19, entitled Contractor Furnished Borrow Material Jefferson, Orleans, St. Bernard, Iberville, and Plaquemines Parishes, Louisiana, and Hancock County, Mississippi. That IER addresses impacts resulting from the excavation of contractor-furnished borrow sites which will be used to increase hurricane protection within the Greater New Orleans area located in southeast Louisiana. Work associated with that IER is being conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade two existing hurricane protection projects (i.e., Westbank and Vicinity of New Orleans and Lake Pontchartrain and Vicinity) in the Greater New Orleans area to provide protection against a 100-year hurricane event. This draft report contains an analysis of the impacts on fish and wildlife resources that would result from excavation of those borrow sites and provides recommendations to minimize and/or mitigate project impacts on those resources.

The proposed project was authorized by Supplemental 4 which directed the Corps to proceed with engineering, design, and modification (and construction where necessary) of the Lake Pontchartrain and Vicinity and the West Bank and Vicinity Hurricane Protection Projects so those projects would provide 100-year hurricane protection. Procedurally, project construction has been authorized in the absence of the report of the Secretary of the Interior that is required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). In this case, the authorization process has prevented our agencies from following the normal procedures for fully complying with the FWCA. The FWCA requires that our Section 2(b) report be made an integral part of any report supporting further project authorization or administrative approval. Therefore, to fulfill the coordination and reporting requirements of the FWCA, the Service will be providing post-authorization 2(b) reports for individual IERs.

This draft report incorporates and supplements our Fish and Wildlife Coordination Act Reports that addressed impacts and mitigation features for the Westbank and Vicinity of New Orleans (dated November 10, 1986, August 22, 1994, November 15, 1996, and June 20, 2005) and the Lake Pontchartrain and Vicinity Hurricane (dated July 25, 1984, and January 17, 1992) Protection projects. It also supplements our August 7, 2006, Planning-aid Letter to the Corps providing recommendations for minimizing impacts to fish and wildlife resources from borrow site selection and use. This report,

however, does not constitute the report of the Secretary of the Interior as required by Section 2(b) of the FWCA. This report has been provided to the Louisiana Department of Wildlife and Fisheries and the National Marine Fisheries Service; their comments will be incorporated into our final report.

DESCRIPTION OF THE STUDY AREA

The study area is primarily located within the Mississippi River Deltaic Plain of the Lower Mississippi River Ecosystem. Portions or all of Jefferson, Orleans, St. Charles, St. Bernard and Plaquemines Parishes are included in the study area. Higher elevations occur on the natural levees of the Mississippi River and its distributaries. Developed lands are primarily associated with natural levees, but extensive wetlands have been leveed and drained to accommodate residential, commercial, and agricultural development. Federal, State, and local levees have been installed for flood protection purposes, often with negative effects on adjacent wetlands. Navigation channels such as the Gulf Intracoastal Waterway and the Mississippi River – Gulf Outlet are also prominent landscape features, as are extensive oil and gas industry access channels and pipeline canals. Extensive wetlands and associated shallow open waters dominate the landscape outside the flood control levees. Major waterbodies include Lake Pontchartrain located north of the project area, the Mississippi River which bisects the project area, and Lake Borgne which is located on the eastern edge of the project area.

A borrow pit was located outside of southeast Louisiana in Hancock County which is in the southwest corner of Mississippi. Commercial and residential development in that area has reduced wildlife habitat. Conversion of forested lands to loblolly pine plantations or farm land has also resulted in decreased wildlife habitat in the area.

FISH AND WILDLIFE HABITATS AND RESOURCES

Habitat types at and in the vicinity of the borrow sites include forested wetlands (i.e., bottomland hardwoods and/or swamps), non-wet bottomland hardwoods, upland forests, scrub-shrub, marsh, open water, and developed areas. Due to urban development and a forced-drainage system with the levee system, the hydrology of much of the forested habitat has been altered. The forced-drainage system has been in operation for many years, and subsidence is evident throughout the area.

Wetlands (forested, marsh, and scrub-shrub) within the study area provide plant detritus to adjacent coastal waters and thereby contribute to the production of commercially and recreationally important fishes and shellfishes. Wetlands in the project area also provide valuable water quality functions such as reduction of excessive dissolved nutrient levels, filtering of waterborne contaminants, and removal of suspended sediment. In addition, coastal wetlands buffer storm surges reducing their damaging effect to man-made infrastructure within the coastal area.

Factors that will strongly influence future fish and wildlife resource conditions include freshwater input and loss of coastal wetlands. Depending upon the deterioration rate of marshes, the frequency of occasional short-term saltwater events may increase. Under that scenario, tidal action in the project area may increase gradually as the buffering effect of marshes is lost, and use of that area by estuarine-dependent fishes and shellfish tolerant of saltwater conditions would likely increase. Regardless of

which of the above factors ultimately has the greatest influence, freshwater wetlands within and adjacent to the project area will probably experience losses due to development, subsidence, and erosion.

Forested wetlands in the area are divided into two major types; bottomland hardwood forests and cypress-tupelo swamps. Bottomland hardwood forests found in the project area occur primarily on the natural levees of the Mississippi River or former distributary channels and in the transition areas between swamps and upland hardwood forests. Cypress-tupelo swamps are located along the flanks of larger distributary ridges as a transition zone between bottomland hardwoods and lower-elevation marsh, scrub-shrub habitats, or open water. Cypress swamps that are within a levee system and under forced drainage are often dominated by bald cypress, but vegetative species more typical of bottomland hardwoods will dominate the under- and mid-story vegetation. Because of their altered hydrology, these areas can potentially convert to sites dominated by bottomland hardwood species and will often have ecological functions closer to those of a bottomland hardwood.

Non-wet bottomland hardwoods within the project area also provide habitat for wildlife resources. Between 1932 and 1984, the acreage of bottomland hardwoods in Louisiana declined by 45 percent (Rudis and Birdsey 1986). By 1970, Jefferson Parish was classified as entirely urban or nonforested in the U.S. Forest Service's forest inventory with most of this loss resulting from development within non-wet areas inside the hurricane protection levees. A large percentage of the original bottomland hardwoods within the Mississippi River floodplain acreage in the Deltaic Plain are located within a levee system, especially those at higher elevations. However, losses of that habitat type are not regulated or mitigated with the exception of impacts resulting from Corps projects as required by Section 906(b) of the Water Resources Development Act of 1986.

Upland forests in the area are primarily comprised of pine forests. An ongoing trend within those forested areas is their conversion to loblolly pine plantations; such plantations provide lower quality wildlife habitat as compared to naturally regenerated pine forests.

Scrub-shrub habitat is often found along the flanks of distributary ridges and in marshes altered by spoil deposition or drainage projects. Typically it is bordered by marsh at lower elevations and by developed areas, cypress-tupelo swamp, or bottomland hardwoods at higher elevations.

Open-water habitat within the project area consists of ponds, lakes, bays, canals, and bayous. Natural marsh ponds and lakes are typically shallow, ranging in depth from 6 inches to over 2 feet. Typically, the smaller ponds are shallow and the larger lakes or bays are deeper. In fresh and low-salinity areas, ponds and lakes may support varying amounts of submerged and/or floating-leaved aquatic vegetation.

Dead-end canals and small bayous are typically shallow and their bottoms may be filled in to varying degrees with semi-fluid organic material. Drainage canals enclosed within the hurricane protection projects or within developed areas are stagnant except when pumps are operating to remove rain water. Runoff from developed areas has likely reduced the habitat value of that aquatic habitat by introducing various urban pollutants, such as oil, grease, and excessive nutrients. Clearing and development has eliminated much of the riparian habitat that would normally provide shade and structure for many

aquatic species.

Some of the waterbodies in the project area meet criteria for primary and secondary contact recreation and partially meet criteria for fish and wildlife propagation; while others do not meet the latter criteria. Causes for not fully meeting fish and wildlife propagation criteria include excessive nutrients, organic enrichment, low dissolved oxygen levels, flow and habitat alteration, pathogens and noxious aquatic plants. Sources of those problems include hydromodification, habitat modification, recreational activities, and unspecified upstream inputs. Municipal point sources, urban runoff, storm sewers, and onsite wastewater treatment systems are also known contributors to poor water quality in the area.

Developed habitats in the study area include residential and commercial areas, as well as roads and existing levees. Those habitats do not support significant wildlife use. Most of the development is located on higher elevations of the project area; however, vast acreages of swamp and marsh have been placed under forced drainage systems and developed. A smaller acreage of wetlands has been filled for development. Agricultural lands occur throughout the area; agriculture includes sugarcane farming, cattle production, and haying.

Endangered and Threatened Species

To aid the Corps in complying with their proactive consultation responsibilities under the Endangered Species Act (ESA), the Service provided a list of threatened and endangered species and their critical habitats within the coastal parishes of the New Orleans District (see Attachment). The Corps has conducted ESA consultation on each borrow site. No known threatened or endangered species or their critical habitat were located at any borrow site. If a proposed borrow site is changed significantly or relocated, or excavation is not implemented within 1 year, we recommend that the Corps require contractors to reinitiate coordination with this office to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

National Wildlife Refuges, Wildlife Management Areas and Parks

Located within the area are the Bayou Segnette and the St. Bernard State Parks, which are operated by the Louisiana Department of Culture, Recreation and Tourism, Office of State Parks. The Barataria Unit of Jean Lafitte National Historical Park and Preserve is located on the west bank of the Mississippi River and managed by the National Park Service. The Service's Bayou Sauvage National Wildlife Refuge is located in the east of New Orleans. The Pearl River Wildlife Management Area is located on the western edge of Hancock County and is managed by the Louisiana Department of Wildlife and Fisheries.

Future Fish and Wildlife Resources

The combination of subsidence and sea level rise results in higher water levels, stressing most non-fresh marsh plants and forested wetlands leading to plant death and conversion to open water. Other major causes of wetland losses within the study area include altered hydrology, storms, saltwater intrusion (caused by marine processes invading fresher wetlands), shoreline erosion, herbivory, and

development activities including the direct and indirect impacts of dredge and fill (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998). The continued conversion of wetlands and forested habitats to open water or developed land represents the most serious fish and wildlife-related problem in the study area. Habitat losses could be expected to cause declines in the area's carrying capacity for migratory waterfowl, wading birds, other migratory birds, alligators, furbearers, and game mammals.

ALTERNATIVES UNDER CONSIDERATION

The proposed borrow sites have been located in areas that minimize impacts to wetlands and impacts to non-wet bottomland hardwoods have also been avoided to the extent practicable. Use of adjacent borrow, the typical construction method, has been limited because of soil conditions (i.e., insufficient clay content), thus impacts resulting from expansion of borrow sites into wetlands has been avoided in some areas. The Service provided an August 7, 2006, Planning-aid Letter to the Corps proposing a protocol to identify borrow sites thereby minimizing impacts to fish and wildlife resources. The Corps has used that protocol as a guideline in identifying potential government-furnished borrow sites.

PROJECT IMPACTS

Excavation of borrow sites will result in the conversion of terrestrial habitat into open-water areas. Because pasture, open water, cleared land and pine plantation habitats have a reduced value to fish and wildlife resources and are not a declining or limited habitat type, impacts associated with conversion of those habitats to open-water were quantified only by acreage (Table 1). Wetland impacts were determined by the Corps regulatory program. That program was also responsible for overseeing mitigation determination and implementation. Approximately 5.4 acres of non-wet bottomland hardwoods were impacted at the Kimble 2 borrow site, impacts and mitigation needs have not been assessed.

Table 1: Impacts from Contractor-furnished Borrow Sites

Site	Parish/ County	Acres	Habitat
River Birch Phase 1	Jefferson	41	pasture, 0.6 acres wetlands
River Birch Phase 2	Jefferson	109	pasture, 6 acres wetlands
Pearlington Dirt Phase 1	Hancock County	45	loblolly plantation
Eastover	Orleans	65	open water, golf course
Kimble 2	Plaquemines	10.5	agriculture, 5.4 acres non-wet bottomland hardwoods
Gatien -Navy Camp Hope	St. Bernard	7.5	pasture
DK Aggregates	Orleans		pasture, open water
St. Gabriel Redevelopment	Iberville		cleared land, approximately 27 acres wetland
Sylvia Guillot	St. Bernard	10.7	cleared land, open water

FISH AND WILDLIFE CONSERVATION MEASURES

The President's Council on Environmental Quality defined the term "mitigation" in the National Environmental Policy Act regulations to include:

(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

The Service supports and adopts this definition of mitigation and considers its specific elements to represent the desirable sequence of steps in the mitigation planning process. Based on current and expected future without-project conditions, the planning goal of the Service is to develop a balanced project, i.e., one that is responsive to demonstrated hurricane protection needs while addressing the equal need for fish and wildlife resource conservation.

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested wetlands and marsh for fish and wildlife and the relative scarcity of that habitat type, those wetlands are usually designated as Resource Category 2 habitats, the mitigation goal for which is no net loss of in-kind habitat value. The degraded (i.e., non-wet) bottomland hardwood forest and any wet pastures that may be impacted, however, are placed in Resource Category 3 due to their reduced value to wildlife, fisheries and lost/degraded wetland functions. The mitigation goal for Resource Category 3 habitats is no net loss of habitat value.

To minimize wetland and bottomland hardwood impacts, the Service recommends that prior to utilizing borrow sites, every effort should be made to reduce impacts by using sheetpile and/or floodwalls to increase levee heights wherever feasible. In addition, the Service recommends that the previous mentioned protocol to identify and prioritize borrow sources provided in our August 7, 2006. Planning-aid letter (attached) should continue to be utilized to guide contractors in locating future borrow-sites.

SERVICE POSITION AND RECOMMENDATIONS

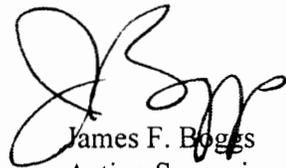
The Service does not object to the use of the proposed borrow sites provided the following fish and wildlife conservation recommendations are implemented concurrently with project implementation:

1. Approximately 5.4 acres of non-wet bottomland hardwoods that have been impacted needs to be assessed for mitigation Subsequent to that assessment, adequate mitigation should be implemented.
2. The Corps provide to the Service verification that wetland impacts and impacts to non-wet

bottomland hardwoods, present and future, have been mitigated.

3. The Corps provide to the Service maps, descriptions of habitats and impacts for all future contractor-furnished borrow sites.
4. The protocol to identify and prioritize borrow sources provided in our August 7, 2006, Planning-aid letter (attached) should be utilized as a guide for contractors locating future borrow-sites.
5. Any proposed change in borrow site features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.
6. Forest clearing associated with borrow site preparation should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.
7. If a proposed borrow site is changed significantly or excavation is not implemented within one year, we recommend that the Corps notify the contractor to reinitiate coordination with this office to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.

Sincerely,



James F. Boggs
Acting Supervisor
Louisiana Field Office

Attachment

cc: EPA, Dallas, TX
NMFS, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

LITERATURE CITED

Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority. 1998. Coast 2050: Towards a Sustainable Coastal Louisiana. Louisiana Department of Natural Resources. Baton Rouge, LA. 161 p.

Rudis, V. A., and Birdsey, R. A. 1986 Forest Resources and Current Conditions in the Lower Mississippi Valley. Resour. Bull. SO-116. New Orleans, La: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. 7 p.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

November 9, 2007 F/SER46/RH:jk
225/389-0508

Mr. Gib Owen
Environmental Planning and Compliance Branch
Planning, Programs, and Management Division
New Orleans District, U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Owen:

NOAA's National Marine Fisheries Service (NMFS) has received the draft **Individual Environmental Report (IER) #19** provided by letter from Ms. Elizabeth Wiggins dated November 2, 2007. The draft IER evaluates and quantifies the impacts associated with the use of nine contractor-furnished borrow sites to restore levees to the 100-year level of hurricane protection.

NMFS has reviewed the draft IER and agrees that none of the borrow sites are located in areas classified as essential fish habitat or supportive of marine fishery resources. As such, we have no comments to provide on the draft IER.

We appreciate the opportunity to review and comment on the draft IER.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

c:
FWS, Lafayette
EPA, Dallas
LA DNR, Consistency
F/SER46, Ruebsamen
Files





KATHLEEN BABINEAUX BLANCO
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES

BRYANT O. HAMMETT, JR.
SECRETARY

November 30, 2007

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

RE: *Application: IER #19*
Applicant: U.S. Army Corps of Engineers, New Orleans District
Public Notice Date: November 2, 2007

Dear Mr. Serio:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF), Office of Wildlife, has reviewed the above referenced Public Notice. Based upon this review the following has been determined:

LDWF has no objection to the activity, provided that implementation of the Proposed Action (3.2.1 Jurisdictional Wetlands) has no direct or indirect impact to jurisdictional wetlands at the proposed borrow areas.

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding the proposed activity. Please do not hesitate to contact Kyle Balkum (225-765-2819) of our Habitat Section should you need further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Venise Ortego".

Venise Ortego, Permits Coordinator

kb/cd

c: Kyle Balkum, Biologist Program Manager
Chris Davis, Biologist
EPA, Marine & Wetlands Section
USFWS Ecological Services



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.

Suite 400

Lafayette, Louisiana 70506

December 5, 2007

Colonel Alvin B. Lee
 District Engineer
 U.S. Army Corps of Engineers
 Post Office Box 60267
 New Orleans, Louisiana 70160-0267

Dear Colonel Lee:

The U.S. Fish and Wildlife Service (Service) has reviewed the, draft Individual Environmental Report 19 for the Pre-Approved Contractor Borrow Material, Jefferson, Orleans, St. Bernard, Iberville, and Plaquemines Parishes, Louisiana and Hancock County, Mississippi. Those documents, transmitted via a November 2, 2007, letter from Ms. Elizabeth Wiggins, Chief of your Environmental Planning and Compliance Branch, describe the proposed work (i.e., excavation of borrow sites) needed to provide earthen material to improve levees to 100-year flood protection design grade. That IER also describes impacts to fish and wildlife resources. The Service provided a draft Coordination Act Report dated November 1, 2007, which included the Services recommendations on that IER. The following comments are provided in accordance with provisions of the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321- 4347).

The Service is pleased to note the inclusion of our recommendations from our November report in the IER and reiterate our recommendations that the approximately 5.4 acres of non-wet bottomland hardwoods impacted by the Kimble 2 borrow site be mitigated and verification of this mitigation be provided to the Service. The Service would like to assist in the assessment of impacts and mitigation development. That mitigation will be addressed in a separate IER.

The Service also recommends that the IER indicate that information provided in the Service's August 7, 2006 Planning-aid Letter regarding siting of borrow sites and potential environmental features be incorporated into the document (i.e., Section 2.1, Alternatives Development and Preliminary Screening Criteria).

We appreciate the opportunity to review the IER for the borrow areas and are pleased with your

OPTIONAL FORM 90 (7-90)

FAX TRANSMITTAL

of pages ▶ 2

To Mike Brown	From David W
Dept./Agency	Phone #
Fax #	Fax #

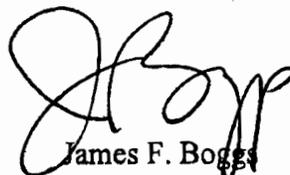
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GENERAL SERVICES ADMINISTRATION

proactive measures that your staff has taken to avoid impacting wetlands within the project area. If your staff has any questions or comments on this letter, please have them contact David Walther (318/291-3122) of this office.

Sincerely,



James F. Boggs
Acting Supervisor
Louisiana Field Office

cc: EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
U.S. Army Corps of Engineers, CEMVN-PM-RP, New Orleans, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources, CMD, Baton Rouge, LA

3. Written Comments and Responses

This section provides the written comments on draft IER #19 received by CEMVN during the public review period. CEMVN received five comment letters regarding the document. All comments received regarding the draft IER are included whether or not the comment merited individual discussion in the text of the draft IER. Responses are included for each comment received.

Letter # 1: Donald Serpas Sr., 27 November 2007

Page 1 of 1

November 27, 2007

Donald Serpas Sr.
2012 Bayou Rd.
St. Bernard, La 70085

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

Dear Mr. Owen:

Thank you for accepting my comments
regarding the U.S. Army Corps of Engineers Environmental Report #18.
I have been fighting for almost 20 yrs. to get the M.R.P.O. closed
and filled in to stop erosion.

I see borrow pits as the most acute and traumatic
cause of erosion to St Bernard Parish. If you are against gross
you have to be against borrow pits.

We are fighting for levees to protect us and then we
have to fight not to dig our good high land inside the levee system
Why dig out the land we are trying to protect?
If there is no other way please consider back-fill.

Sincerely,
Donald Serpas Sr.

DS 1
DS 2

DS 1: An extraordinary quantity of borrow material is needed to construct the hurricane protection system to the levels required to provide protection for the people of the Greater New Orleans area. CEMVN's priority in the New Orleans area is public safety and it is working hard to balance out the impacts of providing protection against the impacts on the people and land in the area. CEMVN is considering several alternatives to earthen levees that would change the quantity of borrow material needed. Alternatives such as T-wall floodwalls and hollow core levees are being evaluated on a project by project basis under IERs that are specific to the levee projects. The Corps is charged with being a good steward of the land and the tax payers' dollars, as such we are analyzing what alternatives will have the least impacts to the land and the people while still meeting the best and wisest use of tax payers dollars. For example, in areas where both T-walls and earthen levees are equally effective protection measures, the earthen levee is selected based on cost criteria.

DS 2: The feasibility of backfilling borrow areas is currently being investigated by CEMVN.

Letter # 2: Catherine Serpas, 27 November 2007

Page 1 of 1

November 27, 2007

Catherine Serpas
2012 Boisjoly Rd.
St. Bernard, La 70085

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

Dear Mr. Owen:

Thank you for accepting my comments regarding
the U.S. Corps of Engineers Environmental Report #18.

My comments are primarily on St. Bernard Parish.

I am fully against borrow pits being dug in
St. Bernard Parish. It seems to me that with the intelligence
of the Corps you could come up with other ways for waste to be
protected than by digging up to 5000 to 6000 acres of St. Bernard
for mud and the very thought that pits that were and would
be dug would not be back-filled is not acceptable.

Some of the sites are located very close to my home
one within 200 ft - others in walking distance.

I am against borrow pits in St. Bernard Parish.

Sincerely,
Catherine Serpas
Proud Resident of Eastern St. Bernard

P. 2

70-8622888

5042713565

NOV-28-2007 09:41:41A FROM:CHLJLJETTIE BIKE

CS 1: IERs 1 through 17 will evaluate alternative designs of levee and floodwall projects, some of which could require less borrow material to accomplish. Additionally, the feasibility of backfilling borrow areas is currently being investigated by CEMVN.

CS 2: It is recognized that some of the proposed borrow sites are located near homes. The language in IER 19 will be revised to reflect that some of the proposed St. Bernard borrow areas are adjacent to residential properties. The Corps is committed to working with the owners of Contractor Furnished pits to ensure that they implement required safety and Occupational Safety and Health Administration (OSHA) regulations as well as follow required Best Management Practices for pit design, location, storm water runoff.

CS 3: CEMVN is investigating borrow areas both inside and outside the levee system throughout the New Orleans Metropolitan area and in other areas of the state and Mississippi. Visit http://www.mvn.usace.army.mil/hps/borrow_pits_home.htm for more information.

CS 1

CS 2 CS 3

Letter # 3: Charles Leon, 4 December 2007

Page 1 of 1

From: charlesleon@cox.net [<mailto:charlesleon@cox.net>]
Sent: Tuesday, December 04, 2007 8:00 AM
To: MVN Environmental
Subject: NOLA Environmental Comment - General Comment

Good Morning:

The barrow pits are my concern. The massive amount of pits would further deteriorate the quality of life and future economic growth of the region. It would scar the region. Hopefully an alternative such as concret T-Walls would be an alternative.

Thank you and we appreciate the work which the Corps of Engineers is doing.

Sincerely,
Charles Leon

CL 1

CL 1: IERs #1 through #17 will evaluate alternative designs of levee and floodwall projects so that the best engineering solution can be achieved. CEMVN is considering the alternative of using T-walls in all levee and floodwall projects; however, the first priority is creating the most safe and effective hurricane protection system possible.

Letter # 3: Louisiana Audubon Council, 4 December 2007

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Louisiana Audubon Council

1522 Lowerline St., New Orleans, LA 70118

December 4, 2007

Mr. Gib Owen, CEMVN-PM-RS
USACE, Planning, Programs Mgt. Div.
Environ. Planning and Compliance Branch
P.O. Box 60267
New Orleans, LA 70160-0267

Re: IER #19, Pre-Approved Contractor Furnished Borrow Material

Dear Mr. Owen,

We have reviewed the Individual Environmental Report (IER #19) and request that these comments be included in the public record for this IER. The application of NEPA requires the Corps to explain its rationale which leads to the selection or rejection of borrow sites. This course of action is missing in IER #18 and 19. The post-Katrina borrow standards for soils are more restrictive and therefore this IER should address the logic of the decision making process leading to the selection or rejection of entire or portions of borrow sites under consideration.

The omission of the Corps' new sediment (soil) criteria for borrow used in post-Katrina levees is a major NEPA deficiency in both IER #18 and #19. We, therefore, consider both IERs grossly inadequate. We insist that these two IERs be expanded to discuss, thoroughly, the implications of using borrow under the old and new sediment criteria.

The Federal Register (U.S. DOD, 2007; item number 4) mandates that, "Prior to any decision to proceed with proposed actions, CEMVN will complete an IER that documents the decision-making process followed by the USACE,..." This decision making process has not been documented in either IER #18 or 19.

The failures of many levees protecting the greater New Orleans area can be attributed to the use of substandard soils which did not meet the engineering criteria needed for a hurricane worthy levee system. Hence, the Corps' change (improvement) in its sediment criteria.

Have either of these documents (IER #18 and 19) been reviewed by a Corps' Geologist? I did not see a geologist named as a preparer of either document (sect. 9.2). If not, include one in the preparation of the revised IERs and cite by name.

Criteria for selection of soils for borrow (pre and post-Katrina)?

A USACE (2007a) memo outlines the changes in the selection of embankment material (borrow) for use in post-Katrina levee building and the new criteria which were provided by the CEMVN Geotech Branch. We assume this is an admission that the pre-Katrina standards were inadequate. We want to be sure that these new standards are going to be used for the selection of soils for the rebuilding of the New Orleans levee system.

These new standards must be included in the borrow documents (IER #18, 19), since the new standards have a bearing on the success of the new levee structure and the environmental consequences. If there have been any additional changes to the standards since the 8/28/07 memo, we request that they be included in the revised IER #18 and 19. We also request that documentation of soil analyses for each borrow site be included in the revised IERs. These analyses should be matched to the new criteria to

LAC, 12/3/07

1

LAC 1: The intent of NEPA is to investigate the impacts of the Government's proposed action on the natural and human environment. There are a number of reasons that a potential borrow area would be removed from consideration, such as the presence of wetlands, potential unavoidable impacts to a known cultural resource or a threatened or endangered (T&E) species, or the presence of a hazardous, toxic, and/ or radioactive waste (HTRW) material that could not be avoided. Additionally, CEMVN has established specific soil standards that all borrow material must meet in order to be used for constructing the Federal Hurricane Protection System (HPS). CEMVN Engineering staff evaluates the geotechnical information from each site and makes a determination as to the acceptability of the material. Soils either meet the standard or do not meet the standard which is the basis for accepting or rejecting a site based on geotechnical evaluations.

LAC 2: Soil criteria are:

- Soils classified as clays (CH or CL) are allowed as per the Unified Soils Classification System;
• Soils with organic contents greater than 9% are not allowed;
• Soils with plasticity indices (PI) less than 10 are not allowed;
• Soils classified as Silts (ML) are not allowed;
• Clays will not have more than 35% sand content.

IER #19 has been updated to include the soil standards listed above. References to soil standards discussed in this report are referring to the standards described above. A discussion of past soil standards is not considered relevant to the decision being made on the proposed Federal action, and as such is not being discussed in IER #19. Visit http://www.mvn.usace.army.mil/hps/soil_boring_factsheet.htm for more information.

LAC 3: CEMVN has identified a need for an amount of borrow material in excess of 100 million cubic yards to construct the proposed HPS. The intent of IER 19 is to provide an analysis of the sites that have been proposed to CEMVN by private individuals or companies that wish to voluntarily provide borrow material to the HPS project. Proposed borrow areas either meet or don't meet the criteria that have been established, as discussed in LAC 2. IER 19 clearly lays out the investigative process that was followed and the decision rationale for selecting potential borrow sites. Because of the extraordinary quantity of material needed sites that meet all of the Government criteria would be approved for use.

LAC1 LAC2 LAC3 LAC4 LAC5 LAC6 LAC7

Letter # 3: Louisiana Audubon Council, 4 December 2007

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LAC 4: Soils of all existing levees that are part of the HPS have been evaluated or are under-going evaluation to determine if they conform to current CEMVN standards. Any levees found not to meet these standards are being rebuilt to meet the standards. Much of this rebuilding work has already occurred (i.e., under Task Force Guardian). The process is constantly being looked at and improved so that USACE provides the best and safest system possible.

LAC 5: The information submitted by any landowners or corporations for use on the HPS is reviewed and approved by a CEMVN Geotechnical Branch staff.

LAC 6: All CEMVN design standards are reevaluated on occasion and are updated when necessary in response to new data and technologies. Soil standards have been reevaluated and will be adhered to when selecting soils to be used for construction of the HPS projects.

LAC 7: CEMVN soil standards are listed in LAC 2 and have been included in IER #19. A discussion of the soil analysis performed for each site under investigation is not considered relevant to the decision being made for the proposed Federal action. The soils at the sites either meet CEMVN soil standards or they don't. If a potential borrow area does not meet all of the CEMVN standards as discussed in LAC 1 and LAC 2 then the site is declined for use as a Federal borrow source.

Letter # 3: Louisiana Audubon Council, 4 December 2007

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assure that the borrow passes the new soil tests. The documents used to detail the changes in soil standards be should be referenced in the revised IERs.

According to the USACE (2007a) memo, (see reference section) the following are the differences in embankment material prior and post Katrina used by the USACE.

"In all levee embankment specifications, allowable soil materials are more stringent than prior to Hurricane Katrina. In particular:

Bold is the present requirements; (Before is prior to Hurricane Katrina)

• **Soils after placement with organic contents greater than 9% are not allowed**
(Before -not tested -prior specs stated free from masses of peat and humus)

• **Soils with plasticity indices (PI) less than 10 are not allowed**
(Before- PI less than 5 was not allowed; ML material allowed)

• **Soils classified as Silts (ML) are not allowed**
(Before - ML material allowed)

• **Only soils classified as clays (CH or CL) are allowed"**

"Bottom line is we're more selective in materials utilized - there is an organic content limit that wasn't there before and we no longer accept silty materials ML; CH & CL's are still acceptable - more clayey materials are being utilized." (USACE, 2007a)

ML = silts and very fine sands

CL = lean clays (low to medium plasticity)

CH = fat clays (high plasticity) USACE (2007b)

I have been told that there is also a review of the maximum amount of sand that can be used in the borrow material for levee construction. The USDA classification allows clays to have as much as 45% sand content. What is the Corps' standard in regard to the inclusion of sand sized material in borrow?

Omission of data:

Based on the statements in IER #18, and #19, the documents exclude discussion of the additional 114 million cubic yards (mcyds) of borrow required for the levees. This is 76% of the 150 mcyds of borrow - a majority of that required (IER #18 only includes 18% of the required borrow while IER # 19 includes only 6% of the required borrow). When will the location of the additional borrow sites be discussed? Will there be another IER? (For additional Louisiana sites? For contractor sites outside Louisiana?) If so, when will the supplemental IERs be provided to the public and the "external engineering peer review"?

QA/QC process?

How will the Corps assure that the soils to be used in the levee system will meet the new Corps' standards? A quality assurance/quality control process must be in place - but this is not discussed or presented in either IER #18 or 19. How will the borrow pits be monitored to be sure that soils extracted meet the engineering requirements? Will inspectors check the quality of borrow delivered to the levee sites? The report discusses "suitable" soils but does not define what they are (see additional comments below).

External engineering peer review?

Federal Register 3/13/07, section 7, states that, "an external engineering peer review of the proposed levees and floodwalls work will be made as soon as practicable and no later than the publication of the draft CED" (Comprehensive Environmental Document).

LAC 8: CEMVN soil standards allow no more than 35% sand content in levees.

LAC 9: IERs #18 and #19 discuss specific potential borrow locations and quantities of borrow available at those sites that have been identified to date. CEMVN recognizes that these potential borrow areas will not provide all borrow currently estimated required for the proposed HPS. CEMVN is pursuing all avenues for locating borrow material and as such there are no limitation on location (in state or out of state) for potential borrow sites if they meet all criteria discussed in LAC 1, and are reasonably priced. Currently three avenues are being pursued by CEMVN to obtain borrow material: Government Furnished (GF) (Government acquires rights to property), Pre-Approved Contractor Furnished (CF) (landowner and construction contractor work in partnership to provide borrow), and Supply Contract (SC) (corporation delivers borrow material to a designated location for use by construction contractor). See LAC 28.

LAC 10: As additional potential borrow areas are located and investigated, CEMVN will complete additional borrow IERs. Future IERs addressing borrow needs include IER #22, entitled Government Furnished Borrow Material #2, and IER #23, entitled Pre-Approved Contractor Furnished Borrow Material #2. These IERs are expected to be ready for public review in March or April 2008. Other IERs will be prepared as additional potential borrow sites are identified. A borrow handout has been available at public meetings since July 2007 and is updated often to show all investigated sites, approved sites and declined sites. The handouts are available at www.nolaenvironmental.gov.

The USACE Hurricane and Storm Damage Reduction System Design Guidelines, of which the soil standards previously discussed are a part, are reviewed and updated as necessary to ensure that the Corps is constructing the safest levees possible. Changes to the guidelines are reviewed and approved by USACE experts at the local, regional and headquarters level; additional reviews are completed by academia and private individuals who are recognized experts in their fields. Additionally, the guidelines being utilized by CEMVN have been reviewed by members of the Interagency Performance Evaluation Team (IPET). The design guidelines may be updated from time to time to respond to new engineering analysis of improved technology, innovative processes, or new data. An implementation plan for an external review should be finalized in February 2008.

LAC 11: Approval of a potential borrow site requires a determination that the soil located at the site meets CEMVN suitability criteria. The contractor excavating the soil will have a geologist on site to ensure that objectionable (unsuitable) material is cast aside as per USACE design specifications. Additionally, quality control of the material to be placed on a levee is performed. The levee contractor is required to test soil classification, moisture content, organic content, sand content, plasticity, and density at a minimum of every 1,500 cubic yards of placed material, or each 500 linear feet of placed material per 12-inch lift. Quality assurance of the entire project is provided by USACE Quality Assurance Representatives who would oversee the operation at the borrow site as well as the levee construction site.

LAC 12: See LAC 2.

LAC 8

LAC 9
LAC 10
LAC 11

LAC 12

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Who will conduct the peer review? Will there be outside engineers, unaffiliated with the USACE, or will it be engineers from other Corps' Districts? A completely independent review of the projects is warranted to provide the Corps with credibility.

Agency coordination?

When will the public be able to see the agency comments and review them so that they can submit additional comments for the record. The NEPA process provides agency input on the draft EIS. There is also a final EIS with all the comments and an opportunity for public review and comment also. Will the IERs follow this process? It is also stated that

Figures:

There should be an index map showing all the borrow sites cited in this IER. A series of figures entitled "Borrow Team Acquisition Plan" were handed out at the Corps' 9/25/07 public meeting. These figures showed all the government and contractor borrow sites proposed in IER 18 and 19 on a parish by parish basis. Similar figures should be included for both borrow site IERs.

The following comments relate to each referenced section.

Sect. 1: Introduction:

"CEMVN engineers currently estimate that 150,000,000 cubic yards of suitable material is required to improve Federal and non-Federal levee and floodwall projects." There should be an engineering definition of the term "suitable". The term "suitable" is used 23 times in IER #19 but there is no definition. What is suitable borrow? Wasn't unsuitable material used in the 17th Street Canal levee and the London Canal levee? What engineering characteristics make the borrow "suitable" for use in the hurricane protection levees? (see previous discussion under Criteria for selection of . . .)

Sect. 1.3. Prior Reports:

Many of the reports outlined in this section were completed before the Corps changed its sediment borrow criteria, post- Katrina. The pre-Katrina reports should be updated to reflect the new borrow standards for sediment to be used in rebuilding the hurricane levee systems. We know the failure of the 17th Street Canal and the London Canal levees were due to poor soil foundations which would not pass the post-Katrina sediment criteria (e.g. thick peat layers below the tip of sheet pilings (17th St levee); massive sand layers (London Canal levee)). Neither of these levees would be acceptable with the new sediment criteria for levee embankments - given the high percent of peat and sand within critical depths of these levees. Borings taken by the Corps in each levee site showed questionable soil characteristics at the time (at the depths of the levee failures). Therefore, each of the cited EAs, prepared before Katrina, should be amended to reflect the new sediment criteria and whether the borrow documented in the older EAs are still acceptable for post-Katrina use.

The list of EAs and prior reports includes:

- (1) "On 27 October, 1988, CEMVN signed a FONSI on EA # 79 entitled "LPV Hurricane Protection - London Avenue Outfall Canal." The report investigated the impacts of strengthening existing hurricane protection at the London Avenue Outfall Canal."
(2) "On 21 July, 1988, CEMVN signed a FONSI on EA # 76 entitled "LPV Hurricane Protection - Orleans Avenue Outfall Canal." The report investigated the impacts of strengthening existing hurricane protection at the Orleans Avenue Outfall Canal."

As an example that there should be a review of existing EAs, the first (1) reports on the London Avenue Outfall Canal, which gave way to rising water because of poor foundation characteristics (sand

LAC13

LAC1415

LAC16

LAC17

LAC18

LAC 13: The USACE Hurricane and Storm Damage Reduction System Design Guidelines, of which the soil standards previously discussed are a part, are reviewed and updated as necessary to ensure that the Corps is constructing the safest levees possible. Changes to the guidelines are reviewed and approved by USACE experts at the local, regional and headquarters level; additional reviews are completed by academia and private individuals who are recognized experts in their fields. Additionally, the guidelines being utilized by CEMVN have been reviewed by members of the Interagency Performance Evaluation Team (IPET). The design guidelines may be updated from time to time to respond to new engineering analysis of improved technology, innovative processes, or new data. An implementation plan for an external review should be finalized in February 2008.

LAC 14: USFWS, Louisiana Department of Wildlife and Fisheries (LaWLF), and NOAA National Marine Fisheries Service (NMFS) provided comments to CEMVN regarding the proposed work discussed in IER #19 during the 30-day public comment period. Governmental agency correspondence has been added, with copies of letters from the various agencies provided in IER #19 and in this Addendum.

LAC 15: CEMVN implemented Alternative Arrangements under the provisions of the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA. The normal NEPA procedures focus on substantive comments (see the CEQ regulations provisions on commenting at 40 CFR §1503). It would be inconsistent with the purpose of the emergency Alternative Arrangements to require additional time and process to address favorable or supportive comments, or comments that do not raise substantive issues with regard to the environmental analysis. Consequently, the Alternative Arrangements provide discretion in determining whether comments on an IER are substantive and merit a response in an IER Addendum.

LAC 16: IER #19 has been updated to include an index map that shows the location of all proposed borrow areas investigated under this IER (Figure 1 in IER #19). A copy of the updated IER is available at www.nolaenvironmental.gov or by contacting CEMVN.

LAC 17: See LAC 2.

LAC 18: The updated soil standards caused no new impacts that were not addressed in pre-Katrina documents, so a re-evaluation of past Federal decisions is not warranted. All borrow areas, as well as potential future borrow areas, are evaluated and only soils that meet the soils standards will be utilized.

Letter # 3: Louisiana Audubon Council, 4 December 2007

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blowout). The second (2) Orleans Avenue Outfall Canal was never completed and the water went around the I-610 to pump station segment which was 5 ft below the top of the flood wall and remains incomplete.

Because of these engineering failures, the existence of prior reports does not mean that the problems have been solved or that they were properly studied. How can we be sure that the pre-Katrina borrow site IAs were rigorous enough to have considered the proper borrow criteria for the new levee system? Independent reports documented improper sediments being used in new levee construction after Katrina.

Sect. 1.4: Draft Comprehensive Environ. Doc. (DCED)

How will this document be structured when IER #18 and #19 together only cover the impacts of 24 % of the borrow needed for levee construction? Will the document be amended to cover other borrow sites which must make up the remaining 76% of the borrow required? How will the cumulative environment impacts of all the borrow extraction be accomplished? When will the impacts of transportation of all the borrow be studied to determine the affects on communities?

Sect. 1.6: Data Gaps and Uncertainties:

A significant data gap is the omission of the new soil criteria as well as the information on the types (USDA classification) of soils which are acceptable ("suitable") based on the new criteria for soils to be used for levee building. Seventy-six percent of the contractor and government furnished borrow, estimated to be needed in the rebuilding process, is not included in either IER. This is a total of 114 mcysd of borrow not covered in either document.

How are these data gaps going to be closed? Will there be new IERs on the remaining borrow sites to complete the total needed?

"Large quantities of material . . . could have localized short-term impacts to transportation corridors that can not be quantified at this time. CEMVN is completing a transportation study to determine any impacts associated with the transporting of material to construction sites. This analysis will be discussed in future IERs once it becomes available."

The Federal Register (4/13/07) does not mention an IER that is specific to transportation impacts. Which numbered IER will it be? When will it be available for public review?

As the borrow pits are used, many will fill with water. We have noticed that portable pumping stations are used to remove the ground and rain water from the excavation sites. Won't these pumps, which are a point sources of pollution, need an NPDES permit?

Sect. 2.4: Alternatives to proposed actions:

"The Bohemia area is located on the north side of Highway 15 in Plaquemines Parish. The 146 acre area was declined because of unsuitable soil conditions." Explain why these soils are unsuitable for borrow. Provide an engineering definition of suitable soils.

Why aren't other alternatives considered? Where are the criteria for accepting or rejecting alternative sites?

Sect. 3. Affected Environment and Environmental Consequences:

"Some concern was noted regarding the possible presence of contaminants in the soil within the floodway because water from the Mississippi River flows over the site during spillway openings." (See comments below at Sec. 3.4).

Sect. 3.1 Environmental Settings - Soils:

This should be a major portion of the IER since it is about the quality of borrow to be used in rebuilding the levee system. It should be expanded to include the consequences of not utilizing the correct type of soils for levees. The human environmental consequences of levee failure should be a significant concern. Why is the Corps prospecting for soils in different areas outside the state. Is it because of the new soil criteria? Explain.

The borrow quality also relates to wetlands use. Wetland soils generally are higher in organic matter which is to be avoided according to the new soils criteria. Therefore, a clear definition of "suitable" soils is needed to determine which wetland areas will be avoided as future borrow sites.

LAC19

LAC20 21

LAC22

LAC23 24

LAC25 26 27 28 28a

LAC 19: See LAC 11.

LAC 20: See LAC 9 and LAC 10. Cumulative impacts of borrow activities is an acknowledge data gap that will be addressed in future IERs as more information becomes available. Also, a Comprehensive Environmental Document (CED) will be written to discuss the cumulative impacts of all the HPS activities.

LAC 21: Transportation is an acknowledged data gap that will be addressed in future IERs as information becomes available. A task order was issued to David Miller & Associates on 5 December 2007 to complete a comprehensive transportation study for the proposed HPS projects. Information from this study will be incorporated into future IERs and the CED where appropriate.

LAC 22: See LAC 2 and LAC 10.

LAC 23: See LAC 21.

LAC 24: Borrow contractors will implement Best Management Practices (BMP), including standard USACE storm water prevention requirements at all borrow area locations. It is the intent of CEMVN to not discharge any waters off site from a borrow pit during mining operations. Should this become necessary a National Pollutant Discharge Elimination System (NPDES) permit would be obtained, if required.

("Sec. 2.4..."): The proposed Bohemia borrow area is a Government Furnished site and is addressed in IER 18 and the IER 18 Addendum. Soils analyzed from the proposed Bohemia site do not meet CEMVN standards, and the site has been eliminated from further consideration. See LAC 2 for definition of suitable soil standards.

("Sec. 3..."): The proposed Bonnet Carré borrow area is a Government Furnished site and is addressed in IER 18 and the IER 18 Addendum.

LAC 25: See LAC 2 and LAC 9.

LAC 26 – LAC 27: See LAC 2.

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LAC 28: CEMVN is pursuing three avenues of obtaining the estimated 100 million cubic yards of borrow material needed for HPS construction. The three avenues that are being pursued by CEMVN to obtain borrow material are Government Furnished (Government acquires rights to property), Pre-Approved Contractor Furnished (landowner and construction contractor work in partnership to provide borrow material), and Supply Contract (corporation delivers borrow material to a designated location for use by construction contractor). Two of the avenues being pursued (Pre-Approved Contractor Furnished and Supply Contract) allow a private individual or corporation to propose a site where borrow material could come from. It is possible that some of the Contractor Furnished and Supply Contract sources of borrow material may come from outside of the state of Louisiana. Currently, CEMVN is not investigating any potential borrow sources outside of the state under the Government Furnished alternative. However, if it should become in the Government's best interest to look at a potential borrow area outside the state the Government could do so.

LAC 28a: Material from a wetlands site would only utilized if CEMVN determines that all reasonable and practicable non-wetland areas have been investigated. If that occurs and wetland areas are investigated then soils will undergo the same rigorous geotechnical investigation required for borrow material. See LAC 2.

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Table 1. This table omits the shrink-swell potential of the soils provided in Table 1 of IER #18. Why were these data omitted in IER #19? The table should be expanded to provide more documentation on the types of soils and the consequences of using them in levee building - not less. At least be consistent.

"The resulting classification, plasticity, water content, and organic content determinations and borrow area boring logs with GPS readings at the boring locations were analyzed for potential borrow use by CEMVN to determine the suitability of the soil."

Again, the document should explain the criteria used to accept or reject the borrow material. Include the criteria used to quantify what soils are "suitable" for use. IER #18 and IER #19 documents are silent on this.

Other issues/info to be addressed in this section:

- a) What was the length of borings used? Greater than 20 ft?
b) Include a chart with the analyses for each soil type and a typical boring or composite from each borrow site.
c) Since this section is very important to the IER (it is about soils) expand to include a matrix of the results of geotech testing and soil analysis for each site accepted or rejected for borrow.
d) Include a section on how the results are used when applied to the new borrow criteria. (see previous discussion)
e) Methodology was discussed but no results (soils analyses) are presented
f) An explanation of what is "suitable soil" needs to be included here. (see earlier discussion)
g) How are the decisions made in selecting borrow inside and outside the levee systems?
h) Include QA/QC in this section (see comments above).

Soil types to be used:

1). River Birch Phase 1 and 2: both sites are classified as having Barbary Soils.

Barbary soils are described by USDA (1983) as poor for road fill because of the low strength, wetness and shrink-swell. They are also described as montmorillonitic and classified as MII -elastic silt; and OH - organic clay or silt. They have very high shrink-swell potential and are considered to have severe limitations for use as embankments, dikes and levees.

A section should be added to discuss how these soils can be used, based on the USDA descriptions that these soils contain buried logs, stumps and wood fragments. If this soil type is going to be utilized, discuss in the revised IER #19 how the soil will meet the new criteria for use in levees.

- Limitations for embankments, dikes and levees (USDA, 1983)
Barbary soils: "Severe; excess humus, hard to pack, ponding."

2). Eastover Site: This site is described as being composed of Harahan clay and Allemands muck.

Harahan clay and Allemands muck also have very high shrink-swell potential. They contain soils defined by USDA as OII, MII and CII. Are OII and MII soils permitted under the new soils criteria? If not, how does the Corps avoid using these soils if the Eastover site is accepted. How does Allemands muck pass the new sediment criteria?

- Limitations for embankments, dikes and levees (USDA, 1983)
Allemands muck: "Severe; piping, ponding and excess humus."
Harahan: "Severe; excess humus, hard to pack, wetness"

Sect. 3.2.1: Jurisdictional wetlands:

"At this time, the CEMVN Regulatory Functions Branch is not issuing Clean Water Act Section 404 permits to landowners for the purpose or need of providing borrow materials to the HPS from areas deemed to be jurisdictional wetlands." Does this statement mean that permits may be issued in the future? Seventy-six percent of the sediments needed for levee building have not been identified. While avoiding wetlands is a laudable goal, will wetlands, now avoided, be included in the future to make

LAC 29

LAC 30

LAC 31 33 35 37 32 34 36 38

LAC 39

LAC 40 41

LAC 42

LAC 29: The shrink-swell potential of the soils as presented in IER 18 and omitted in IER 19 is not considered to be a valuable assessment of the soils. These tables present data from the US Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Web Soil Surveys, and are a general description of the condition of the type of soil, not necessarily that of the soil present at a proposed borrow area. The USDA typically classifies only the surface layer (the first 80 inches) of the soil present at any given location and does not provide any information for the underlying soil. Additionally, information provided by the USDA, such as the shrink-swell potential, describes only the virgin condition of the soil, not the compacted condition of the soil. Expansion of the table to provide more documentation of the types of soil that may be used, as classified by the USDA, and the consequences of using these soils is not considered relevant to the IERs, and as such these tables have been removed from both IERs. The USDA classification of soils is not used to determine suitability of the material for use in levees. Soil suitability is determined as per the standards discussed in LAC 2.

LAC 30: See LAC 2.

LAC 31-37: Soil boring depths vary and are determined on a site-specific basis. The depth of the boring is typically 5 feet deeper than the planned excavation. The inclusion of the following information is not considered relevant to the environmental impact analysis process, and was not included in the IER: analysis of each soil type; typical boring from each borrow site; results matrix; and the application of borrow criteria.

LAC 38: CEMVN is investigating all reasonable and practicable sites via the three avenues discussed in LAC 28. Whether the area is inside or outside of a levee system has no bearing on a decision to utilize a potential borrow site.

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LAC 39-41: See LAC 29. USDA classifications of soils were not used to determine soil suitability for potential borrow material. Comprehensive soil suitability is determined by CEMVN by analyzing borings taken on 500 feet spacings over the entire proposed site. Samples from these borings are then taken to an approved geotechnical laboratory where detailed soils tests are performed to assess the material as to its ability to meet the soil standards discussed in LAC 2. All potential borrow areas have the potential for the presence of some material that will be considered objectionable (unsuitable), such as buried logs, stumps, and wood fragments. See LAC 2.

LAC 42: CEMVN is working diligently to avoid impacts to jurisdictional wetlands associated with providing borrow material for HPS projects. CEMVN selection prioritization of potential borrow areas (Section 2.1 in IER #19), as well as USFWS guidance (letter dated 7 August, 2006 in Appendix D of IER #19), relating to impacts to jurisdictional wetlands are and will continue to be followed. It is possible that once CEMVN has determined that due diligence of reasonable and practicable alternatives for avoiding wetland sites has been completed, wetland sites could be investigated for use as potential borrow sources. At that time the CEMVN Regulatory Branch could reexamine the purpose and need (related solely to the proposed HPS projects) of any permit applications involving wetland areas. CEMVN will coordinate with governmental agencies and the public if jurisdictional wetlands may be impacted during future proposed borrow activities. CEMVN will mitigate impacts to jurisdictional wetlands, as required by law.

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up the shortfall in borrow? Will wetlands outside the levee system be used for contractor borrow in the future?

We hope that this wetland avoidance will be consistent throughout the borrow excavation process. Other borrow pits, excavated for the WB&V Hurricane Protection Project, are located in wetland areas.

Sect. 3.2.12: Water Quality:

What will be the environmental consequences of borrow pits, which when filled with water, will be mosquito breeding areas. How will disease vectors at the new sites be controlled? This is an environmental health issue and must be discussed in the IER.

"In some cases the borrow areas may need to be drained with the use of a sump pump." Won't an NPDES permit be required for this potentially polluting point source?

Sect. 4: Cumulative Impacts:

"An estimated 150,000,000 cubic yards of borrow material will be needed to complete the 100-year level of protection. Borrow material will also be needed to perform levee lifts and maintenance for at least 50 years after construction is completed."

Does this mean that additional material in excess of 150 mcys estimated will be needed for levee maintenance? If so, what will be the impacts and how much additional borrow will be needed in the future based on subsidence and compaction?

Sect. 5: Selection Rationale

There is no discussion of the borrow criteria to be used in rejecting soils which would not meet the post-Katrina criteria.

Sect. 6.1: Public Involvement

There were no formal discussions of the borrow sites at any of the public meetings I attended. The handout which was provided at the Sept 25, '07 and Nov. 29, '07 meetings did not include discussion of the new sediment criteria.

Sect. 6.2: Agency Coordination:

"Preparation of this IER has been coordinated with appropriate Congressional, Federal, State, and Local interests, as well as environmental groups and other interested parties."

Which environmental groups were involved in preparation of this IER? Name them. We are unaware of the involvement of any environmental groups in preparation of this IER. Were there meetings with public interest groups to discuss the preparation of IER #19?

There are a series of recommendations listed as sourced from the USF&WS and Corps' responses. Include the draft coordination act document (dated Nov. 1, 2007) from the USF&WS as an addendum in the revised IERs. We would like to read the entire text.

Was there any other input from federal or state agencies in regard to the selection or rejection process of borrow sites? Was there input from the USGS?

Summary:

Based on the Corps' estimate, IER #18, and 19 address only 24% of borrow required to rebuild the levee system. Therefore, there is a net deficit of 114 mcys (or 76 %) of the total volume of borrow required by the Corps. The Federal Register (U.S. DOD, 2007) does not mention additional IERs for the remainder of the borrow needed for the levee system. Will there be additional revisions of IER #18 and 19 which add additional borrow sites not included in the draft IERs? If so, when will they be prepared and will the public be able to comment?

The Corps must lay out the criteria used in the selection or rejection of borrow sites. This information is basic to this IER. These new criteria are not addressed in IER #18 or 19, as required by NEPA. The Corps' rationale must be explained as part of the decision making process (U.S. DOD, 2007).

Section 7 of the Federal Register (3/13/07) requires "an external engineering peer review of the proposed levees and floodwalls" Will this also include an analysis of the borrow material used for the

LAC, 12/3/07

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LAC 43 LAC 44 45

LAC 46 LAC 47 LAC 48

LAC 49 50 51

LAC 52 LAC 53 LAC 54

LAC 43: See LAC 42.

LAC 44: A discussion on the impacts of mosquitoes has been included in IER 19. While the proposed the borrow areas, if constructed, have the potential for becoming mosquito breeding areas, the amount of surface acres of water is considered to be small compared to surrounding wetlands. Mosquito control would be implemented by the parish and would conform to its existing plan for controlling mosquitoes.

LAC 45: If it is determined that water can not be contained on-site then any required NPDES permits would be obtained.

LAC 46: Additional borrow material will be needed by the local non-Federal sponsor to perform operation and maintenance of the HPS over the life of the project. CEMVN expects that additional borrow material needed for this purpose would be identified as the need becomes evident, and any required environmental compliance, analysis, and testing would be completed at that time.

LAC 47: See LAC 2.

LAC 48: IERs 18 and 19 were discussed at four public meetings in July 2007 (in Belle Chasse, Avondale, New Orleans East, and St. Charles Parish). Borrow handouts detailing the HPS need and the potential borrow sources have been made available at all public meetings since July 2007, and are available at www.nolaenvironmental.gov. Discussions concerning borrow have occurred at some of the public meetings in response to questions asked by the public. Borrow issues in St. Bernard Parish were discussed at length at a public meeting in St. Bernard on 24 October, 2007.

LAC 49: Non-governmental organizations (NGOs) as well as all interested stakeholders have had the opportunity to participate in the planning process and to provide input about proposed HPS work since the process started in March 2007. NGOs have had the opportunity to provide written comments through the mail, and through www.nolaenvironmental.gov, as well as at public meetings. In addition, a public meeting held on 1 November 2007 at the request of several NGOs was targeted to provide detailed information to these groups concerning the entire HPS.

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LAC 50: The USFWS Coordination Act Report along with other agency correspondence and comment received in regards to the proposed Federal action discussed in IER 19 is included in Section 2 of this Addendum and as a part of Appendix D in IER #19. Copies of the updated IERs are available at www.nolaenvironmental.gov or by contacting CEMVN.

LAC 51: The USFWS, US Environmental Protection Agency (EPA), NMFS, US Geologic Survey (USGS), Louisiana Department of Natural Resources (LaDNR), and LaWLF were and will continue to be included in the planning process. Members of the interagency team are listed in Appendix C of IER 19. These agencies, as well as the public and NGOs, had the opportunity to comment during the public review period. Comments from governmental agencies are found in Section 2 of this Addendum. USGS did not submit a comment during the public comment period.

LAC 52: See LAC 10.

LAC 53: The soils at the proposed borrow areas discussed in IER #19, as well as all other proposed borrow areas, must meet current CEMVN soil standards as discussed in LAC 2 in order to be considered suitable for HPS construction. The selection rationale as discussed in IER 19 is that a site has to meet all of the CEMVN criteria discussed in LAC 1 and LAC 2 for it to be considered as a potential borrow site where material could be taken from for use on the HPS levees.

LAC 54: The USACE Hurricane and Storm Damage Reduction System Design Guidelines, of which the soil standards previously discussed are a part, are reviewed and updated as necessary to ensure that the Corps is constructing the safest levees possible. Changes to the guidelines are reviewed and approved by USACE experts at the local, regional and headquarters level; additional reviews are completed by academia and private individuals who are recognized experts in their fields. Additionally, the guidelines being utilized by CEMVN have been reviewed by members of the Interagency Performance Evaluation Team (IPET). The design guidelines may be updated from time to time to respond to new engineering analysis of improved technology, innovative processes, or new data. An implementation plan for an external review should be finalized in February 2008.

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levees? Will this peer review be accomplished with Corps personnel or outside engineers and geologists paid by the Corps?

We request a public meeting to discuss both IER #18 and 19 as required in section 6 of the Federal Register (3/13/07). Please inform us when the public meetings will be scheduled on the borrow IERs and whether revised IERs will be prepared.

Sincerely,

(sent by electronic mail)

Barry Kohl, Ph.D., Geologist
President, LAC

cc: Horst Greczmiel, CEQ
Gulf Restoration Network (GRN)
Lake Pontchartrain Basin Found (LPBF)
National Audubon Society (NAS)
Sierra Club, Delta Chapter
EPA
USF&WS

References:

USACE, 2007a. Memo outlining sediment criteria used pre-Katrina and post-Katrina for use in embankment material (hurricane protection levees). Gib Owen, USACE to Barry Kohl dated, August 28, 2007.

USACE 2007b, Hurricane and Storm Damage Reduction System Design Guidelines. New Orleans District Engineering Division, Oct. 23, 2007.

U.S. DOD, 2007. Department of the Army; Corps of Engineers: Adoption of Alternative Arrangements under the National Environmental Policy Act for New Orleans Hurricane and Storm Damage Reduction System. Federal Register, vol. 72, n. 48, p. 11337-11340.

USDA, 1983. Soil Survey of Jefferson Parish, Louisiana. Soil Conservation Service, 95 pp., 43 maps.

LAC 55

LAC 55: The requested public meeting was held on 10 December, 2007.

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Louis Barrett
2533 Bayou Rd.
St. Bernard, La. 70085

December 6, 2007

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

Re: Individual Environmental Report #19

Dear Mr. Owen:

Please accept my following comments and concerns regarding the U.S. Army Corps of Engineers Individual Environmental Report #19. As a St. Bernard Parish resident, my comments are primarily constrained to its effects on St. Bernard Parish.

While recognizing that hurricane protection for the region is vital and urgent; I am also seriously concerned of the impact on the community by several parts of IER#19 as currently stated.

General Comments

First and foremost, I believe the logic of cannibalizing the area within the levees by excavating large borrows pits within this protected area is seriously flawed. The three sites in St. Bernard listed in IER#19 are within the levee protection area. Excavating large borrow pits in the eastern St. Bernard Parish only accelerates the destruction of this coastal parish instead of preserving, restoring, and rebuilding it. The Corps of Engineers should be taking the position of being a premier guardian of the coastal parishes, instead of a participant in their destruction.

The public participation for this and other related projects is inadequate. Information about this IER and the Corps of Engineers related projects has not reached the majority of the people in the community. Notification of public meetings has also been inadequate. These notices should be much more than a small ad in newspapers. Information on these projects is difficult to find on the Corps of Engineers websites and especially so for anyone with less than proficient computer skills. Also, many concerned people in the community are preoccupied with rebuilding their lives and property after the devastation of Katrina and do not have the time to devote to searching for information on these projects. The Corps of Engineers and local government should reach out to the people in the community to inform them of the impact of these projects. The public comment period should be extended bearing these facts plus given the fact that the comment period is over the Thanksgiving holidays.

LB 1

LB 2

LB 3

LB 1: CEMVN's mission is to ensure the safety of the people of southern Louisiana and protect the infrastructure. In order to do this, large quantities of borrow material are needed. CEMVN is currently investigating borrow sources from all over the New Orleans Metropolitan area and from other states. Additionally, three avenues to obtain borrow material are being pursued: Government furnished (GF) (government acquires rights to property), Pre-Approved Contractor Furnished (CF) (landowner and construction contractor work in partnership to provide borrow material), and Supply Contract (SC) (corporation delivers borrow material to a designated location for use by construction contractor). See LAC 28. A companion effort is underway via the LaCPR (Louisiana Coastal Protection and Restoration) study to determine reasonable and effective ways to restore the wetlands of south Louisiana.

LB 2: The public has had the opportunity to give input about proposed HPS work throughout the planning process through the mail or www.nolaenvironmental.gov, as well as at public meetings. CEMVN has completed 37 public meetings to discuss the proposed HPS since starting the planning process in March 2007. CEMVN sends out public notices in local and national newspapers, news releases (routinely picked up by television and newspapers in stories and scrolls), and mail notifications to stakeholders for each public meeting. In addition, www.nolaenvironmental.gov was set up to provide information to the public regarding proposed HPS work. CEMVN has recently started sending out e-mail notifications of the meetings to approximately 300 stakeholders who requested to be notified by this method. Public meetings will continue throughout the planning process. Additionally, IER 19 was made available for a 30-day public comment period and a public meeting (on 10 December 2007) regarding borrow issues was held at the request of the public.

LB 3: This addendum provides the public with another 30-day period to provide comments on the proposed action.

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IER #19 does not consider the cumulative effects of the total "borrow pit" impact on the area. It does not address the previous or future sites being considered through future IER's or local permitting procedures. The impact of this IER cannot be judged without addressing the cumulative effect of all existing and planned borrow pits. An example of a severe impact not considered in IER#19 would be the sites left by IER #18, which do not consider the backfilling option.

The practice and procedures by the Corps of Engineers of using the Government Furnished Borrow Material vs. the Pre-Approved Contractor Furnished Borrow Material procurement methods tend to promote and encourage landowners to sell their property for high returns through contractors. This practice has opened the door for "mud brokers" who search out landowners willing to sell their property. These different procedures have the effect of people being frightened into selling their land because they believe the Corps of Engineers will take it for little or nothing.

Also, many of these landowners are either former residents who did not return to live in St. Bernard or do not live in the area and thus do not have a vested interest in the community.

Specific Comments by Section

1.5 Public Concerns: The few public concerns listed in this section are not addressed in the rest of the report. The public concerns of not excavating in the coastal parishes and backfilling borrow pits is not strongly addressed elsewhere in this report. This leaves one with the impression that these concerns are not considered relevant.

1.6 Data Gaps and Uncertainties: This is a huge gap that has not been determined. Transportation routes will affect traffic congestion, the cost of the borrow material, damage to roadways, and the aesthetics in the community. Many of these borrow areas are on Bayou Rd., which is a state sub-standard highway and has been blocked by the La. Dept. of Transportation in two locations to confine the traffic to local traffic only and to remove the truck traffic. This highway is also listed as part of the San Bernardo Scenic Byway by the tourism commission.

2.1 Alternatives Development and Preliminary Screening Criteria: In IER#19 mention is made that borrow pits would be backfilled in parishes that have ordinances requiring backfilling. Why isn't this considered in IER#18?

It is stated that Part of the Environmental Design Considerations for Main Stem Levee Borrow Areas Along the Lower Mississippi River Report 4: Part V, will be referred to when designing the borrow areas. This report states that the maximum depths of 7 to 10 feet are recommended. However, the drawings of the sites indicate design depths of 20 feet. Why would these design considerations not be adhered to?

2.4 Alternatives to the Proposed Action: It is stated in the No-Action alternative, that the borrow areas listed could still be excavated by the landowner, but not used for federal levee projects. Considering the scarcity of borrow material for future projects and the fact that permits were issued by the Corps of Engineers for the purpose of

LB 4

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LB 4: See LAC 20. Cumulative impacts analysis is an on-going effort. Future IERs and the CED will provide additional information on the cumulative impacts as information is obtained.

LB 5: Because of the large quantity of borrow material needed, CEMVN is investigating obtaining borrow from all reasonable and practicable methods. See LAC 9. Any properties acquired by the USACE or its non-Federal sponsor for use as a government furnished borrow site would be done at fair market value based upon highest and best use of the property.

LB 6: Comment noted.

LB 7: CEMVN does not intend to use existing wetlands for borrow at this time, but will re-evaluate this practice if non-wetland sites become more difficult to obtain. CEMVN is currently considering the feasibility of backfilling borrow sites.

LB 8: A task order was issued to David Miller & Associates on 5 December 2007 to complete a comprehensive transportation study of the HPS study area. This is an acknowledged data gap in the current documents that will be addressed in future documents.

LB 9: The feasibility of backfilling borrow areas for Government Furnished sites is currently being investigated by CEMVN.

LB 10: CEMVN is using Report 4 for designing borrow pits and will incorporate environmental considerations where feasible. For example, 10 feet is the recommended depth for borrow pits, but this depth requires a trade-off that there will be more acres of land excavated for borrow if pits do not maximize available clay materials below the 10-foot depth. See <http://www.mvn.usace.army.mil/ED/edsp/index.htm> for more information.

LB 11: CEMVN is currently avoiding using wetland sites as borrow sources and is applying this standard to Government Furnished, Per-Approved Contactor Furnished, and Supply Contact sites consistently. However, a private landowner is able to apply for a permit at any time to use a wetland for a purpose not related to the proposed Federal project.

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levee material, why wouldn't the permit be canceled, and thus reduce the borrow pit impact on the area?

Barge or rail transport of material is mentioned briefly. This option could greatly impact this IER.

3.1 Environmental Setting: The soil data, especially the information in Table 1, is not meaningful unless one is technically familiar with this area of expertise. What significance does the shrink-swell potential have? What is the significance between the different types of clay?

3.2 Significant Resources: Information referenced in this section is very inaccessible to most people. The information should be explained instead of referenced to a website digital library. Also, some of these areas are within historical sites and communities, how can the recreational resources and aesthetics not be impacted? Also, without on site investigation by trained wildlife professionals, how can assurances be made that threatened and endangered species are not impacted?

3.2.13 Transportation: It is stated that St. Bernard Parish is still undergoing clean-up from the devastation due to Hurricanes Katrina and Rita, and that debris hauling trucks are still working in the area. This is not true. This area of St. Bernard Parish essentially been cleaned with little or no debris hauling activity remaining. Also, a large majority of the residents in this area of St. Bernard Parish have returned and rebuilt. Numerous dump trucks in this area will be a large impact on the local sub-standard roadways.

3.2.14 Aesthetics: I feel that the proposed borrow pits in St. Bernard Parish will have significant visual impact, as they are all located adjacent to local highways or roadways and two are in close proximity to residential housing. An example of an abandoned borrow pit is the TFG site at Creedmoor on Hwy 46 where one can see the unsightly overgrown fenced borrow site.

Part V of the Environmental Design Considerations for Main Stem Levee Borrow Areas Along the Lower Mississippi River is again referenced in the Proposed Action paragraph. How can anyone feel confident that this will be adhered to when existing sites do not conform to this standard and the site designs in this IER are in conflict with these recommendations?

3.3.1 Land, Water, Minerals, Fisheries, and Agriculture: Under the Proposed Action section, it is stated that a relatively small amount of land is used for agricultural purposes. Farming operations are not instantaneous startup endeavors and many of these operations were destroyed by Katrina. Many of these people have not resumed the agricultural operations for various reasons at this time, but it is reasonable to assume that these operations will resume as people return and rebuild. The land use statements in this IER, as stated soon after the devastation of Katrina, probably do not accurately reflect the normal land use.

LB 12

LB 13

LB 14

LB 15

LB 16

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LB 18

LB 19

LB 12: See LAC 21. It is probable that borrow material from two proposed borrow areas (Pearlington and St. Gabriel) could be transported by barge using the Gulf Intracoastal Waterway (GIWW). The proposed action is not expected to have any impacts on the environment if the sites are approved. All of the other sites discussed in IER #19 would be transported by truck to the construction site.

LB 13: See LAC 29. The information presented in this table was determined to be not relevant to the IER and was removed from the document.

LB 14: Documents are referenced in an effort to keep each IER as concise as possible. Many of the referenced documents will be pertinent to several IERs being written, so it is reasonable to have these references kept in a common location. Hard copies of individual documents can be provided upon request.

LB 15: Excavation of any of the proposed borrow areas would not alter the characteristics of historic properties nor change their inclusion in the National Register of Historic Places, if applicable. While the addition of borrow areas would alter the existing viewscape at particular points along the byway, several borrows pits already exist along this byway and in the vicinity of the proposed borrow areas. In addition, some borrow pits lie in close proximity to pre-Katrina mobile home parks, and residential sub-divisions. For example, the proposed borrow areas in IER #18 (Government Furnished Borrow Material) located at 1418/1420 and 1572 Bayou Road are set at least 100 yards from the road and lie behind houses or vegetation. These existing features provide some screening from the road. Planting vegetation to screen the borrow pits could help reduce the visibility of them from the road.

LB 16: Onsite investigations were made by professionals (biologist, recreation planner, and archeologist) for each site. USFWS was consulted for each proposed borrow site, and concurred with CEMVN staff determination that no significant impacts would occur to any T&E species or areas designated as critical habitat for a T&E species.

LB 17: Concur. The language in IER #19 has been reflected to show this.

LB 18: Comment noted. See LB 15.

LB 19: The statement that "a relatively small amount of land is used for agricultural purposes" applies to both pre and post-Katrina conditions. As it stands, agricultural endeavors are a small part of the economy of the New Orleans MSA, relative to other industries.

Letter # 4: Louis Barrett, 6 December 2007

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3.3.3 Business, Industry, Employment, and Income: I question the statement that none of the sites have been identified as impacting businesses. These sites should be considered for future development and businesses in the parish, especially at this time so soon after Katrina. Many businesses haven't reopened. Also, agricultural activities should be considered as businesses.

3.3.4 Population and Housing: Under proposed action, it is stated that the Sylvia Guilliot site is vacant. It is true that the site itself is vacant, but there are numerous occupied houses in the vicinity and directly across the highway. It is also stated that the proposed action would not cause residential displacement. However, one certainly could speculate that the existing borrow sites of Sylvia Guilliot and Marquize (within close proximity) prompted the permit application of two additional sites adjacent to the Guilliot property. (CUP#s P20071567 and P20071568)

3.3.5 Property Values, Tax Revenues, Public Facilities, and Services: I question the housing values quoted for St. Bernard Parish. Sylvia Guilliot has had her storm damaged house up for sale for over \$400,000. Also, this area is across the highway from Sylvia Estates where an empty lot is over \$65,000. There are numerous houses in this vicinity that would be valued over \$200,000. Just check the real estate transfers for this area. The low figures quoted give a false impression to anyone not familiar with the area.

3.3.6 Community and Regional Growth: It is stated in the Proposed Action paragraph that local government and business owners have expressed concerns with so much potentially developable land being converted to borrow sites. As the government's highest authority of land use for levee construction, why isn't the backfilling and reconstruction of these areas being led by the Corps of Engineers instead of only paying homage that efforts are underway at the local level to backfill many of the sites? The Corps of Engineers should be a premier guardian and restorer of all the land instead of leaving destructed areas in the aftermath of a project.

3.3.7 Health and Safety: There is a health impact, and especially so for the sites in St. Bernard Parish that are close to residential areas. The pits would increase the area for mosquito breeding and thus a health concern. There is a major concern of the possibility of tropical diseases and St. Bernard already has concerns and problems with mosquito control which would be exacerbated with more ponds close to residential areas.

The pits in these areas would also be an attractive nuisance to a neighborhood and dangerous to children.

3.3.8 Community Cohesion: The statement that the proposed sites are located in unpopulated areas is false. The Sylvia Guilliot and Gaiien-Navy Camp Hope sites are located near residential housing.

It is also stated that public involvement with the community is part of this process. Have the residents of these neighborhoods been notified that a borrow pit is planned

LB 20

LB 21

LB 22

LB 23

LB 24

LB 25

LB 26

LB 20: The language in IER #19 has been adjusted to reflect that several of the proposed St. Bernard borrow areas were previously pasture. Only current land uses are considered relevant to the NEPA process and are compensable if acquired by the government.

LB 21: CEMVN has estimated a need for approximately 30 million cubic yards of material in St. Bernard Parish to build the HPS projects and is pursuing three methods of obtaining the material: Government Furnished, Pre-Approved Contractor Furnished and Supply Contract. Additional borrow materials will be needed by the non-Federal sponsor to operate and maintain the levees over the life of the project (perpetuity). CEMVN does not have the authority to stop any private land owners from offering their properties as potential borrow sources through the Pre-Approved Contractor Furnished or Supply Contract processes. If a site is found to meet the CEMVN standards as described in LAC 1 and 2, it is probable that the site could be utilized for borrow material for the HPS levees. See LAC 9.

LB 22: Real estate data comes from the 2000 US Census. The data in question was provided for the census tracts on which the potential borrow sites are located. The values quoted are median values that take outliers into account - on both the extremely high and on the extremely low end.

LB 23: CEMVN is investigating the feasibility of backfilling Government Furnished sites used by the Federal government for HPS projects.

LB 24: A discussion about mosquitoes has been added to IER #19. While the proposed borrow areas have the potential to become mosquito breeding areas, the amount of surface acres of water is considered to be small compared to surrounding wetlands. Mosquito control would be taken care of by the parish as part of the parish-wide mosquito control program.

LB 25: The landowner would be responsible for complying with any local fencing ordinances for Pre-Approved Contractor Furnished or Supply Contract sites. CEMVN is investigating the feasibility of fencing Government Furnished borrow sites used by the Federal government for HPS projects.

LB 26: The language in IER #19 has been adjusted to reflect that several of the proposed St. Bernard borrow areas are located near residential housing.

Letter # 4: Louis Barrett, 6 December 2007

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• Page 5

next to their houses? Each resident in close proximity of these sites should be personally notified of what is planned for their neighborhood.

How can digging and leaving large borrow pits (destroying part of the community) be considered a positive element of community cohesion?

4. Cumulative Impacts: It is stated that "It is anticipated that through the efforts taken to avoid and minimize affects on the project area and the mandatory implementation of a mitigation plan that functionally compensates unavoidable remaining impacts the proposed borrow areas would not result in substantial direct, secondary or cumulative adverse impact on the environment."

I question this assumption and request an explanation of how the impact of this IER and future IER's will not have an adverse impact on the environment.

6.6.1 Public Involvement: See general comments.

Thank you for the opportunity to comment on this IER#19. I look forward to your reply.

Respectfully,

Louis Barrett
2533 Bayou Rd.
St. Bernard, La. 70085

LB 27
LB 28

LB 29

LB 27: CEMVN is currently looking at borrow options around the New Orleans Metropolitan area, as well as outside of the state of Louisiana. It is not feasible to contact each resident individually. Notification is available through CEMVN websites and notices published in local and national newspapers. Additionally, notifications about meetings and the availability of project documents such as this one are mailed and e-mailed to interested stakeholders.

LB 28: The proposed project is designed to benefit areas beyond those of the immediate proposed project sites, i.e. the entire parish. It is also intended to benefit the larger community of the New Orleans Metropolitan area and the nation at large. This is accomplished by lowering the risk of catastrophic flooding that typically results in much more adverse consequences with respect to community cohesion and other social effects.

LB 29: IER 19 discusses that with the unavoidable impacts described in the document when mitigated would result in no substantial impacts to the environment. CEMVN is not able to say at this time that the completion of the proposed 100-year HPS work will not have adverse or significant impacts on the environment in the New Orleans Metropolitan area.

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UNITED FOR A HEALTHY GULF

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December 6, 2007

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

RE: INDIVIDUAL ENVIRONMENTAL REPORT #19

Dear Mr. Owen:

We are writing on behalf of the Gulf Restoration Network (GRN)¹, Lake Pontchartrain Basin Foundation (LPBF), Sierra Club—Delta Chapter (Sierra Club) Benroe Housing Initiatives, Advocates for Environmental Human Rights, Louisiana Environmental Action Network, William A. Fontenot, Unitarian Universalist Service Committee, M-W & Associates, Coalition to Restore Coastal Louisiana, Louisiana Bayoukeeper, Association of Family Fishermen, and Holy Cross Neighborhood Association. Please accept the following comments regarding the Army Corps of Engineers' *Individual Environmental Report, Pre-Approved Contractor Furnished Borrow Material, Jefferson, Orleans, St. Bernard, Iberville, and Plaquemines Parishes, Louisiana (IER #19)*.

While we recognize that the protection of our coastal resources is urgent, we are concerned about several aspects of IER #19 as it is currently written. These concerns are outlined below:

A. General Comments

Public Participation: So far, the public participation for the expedited NEPA process and specifically IER #18 and #19 has not been adequate for the following reasons:

¹ The Gulf Restoration Network is 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.

GRN 1a

GRN 1a: Adequate public notification has been completed by CEMVN. CEMVN has no control over the level of public response or participation.

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1. It is very difficult to find these projects online. They are not on the Corps' New Orleans District's website nor is there any indication on the website or a link from the homepage to direct viewers to find the reports at www.nolaenvironmental.gov. Further, these projects, along with the www.nolaenvironmental.gov website should be much more prominent. The Corps must rectify this immediately to stop making it exceedingly difficult for the public to access and review and comment on these important projects.
2. The public comment period for all IER's should be longer than 30 days. Specifically IER 18 and 19 comment periods occur over the Thanksgiving holiday. Given the fact that the public cannot be expected to devote adequate time to these proposals during a very busy time of year, the comment period is inadequate and should be extended to accommodate the disruption.
3. The Corps must outreach to impacted communities. Specifically, the Corps should actively visit all of the adjacent and neighboring communities, and distribute fliers and talk to them about the potential impacts to their neighborhoods. We request the Corps pursue this course of action immediately.
4. The public comment periods for both IER #18 and #19 end before the "Environmental Justice" meetings even take place. At the very least, people attending these meetings should have an opportunity to comment on IER #18 and #19, and as such we request the comment periods for both be extended to accommodate this.
5. We are concerned that the borrow pits are being proposed in a piece-mealed manner and it is difficult to adequately assess their cumulative impact on the region without a single map that combines all of the borrow areas from each IER. We ask that the Corps furnish us with such a map.

GRN 1

GRN 2

GRN 3

GRN 4

GRN 5

GRN 6

GRN 7

Therefore, we request a public hearing on IER #18 and #19. The Federal Register announcement published on Tuesday, March 13, 2007 states that "Public meetings to discuss a specific IER will be held if requested by the stakeholders involved" (emphasis added). The public has not had adequate opportunities to express their concerns about these projects, and we feel that the public would be able to supply additional information that is not included in written comments.

Total Fill Necessary Not Addressed: According to IER #18 and #19, 150,000,000 cubic yards of appropriate fill are necessary to make the Metro New Orleans levees meet a "100-year" protection. However, IER #18 and #19 only address approximately 35,000,000 cubic yards of fill. This amounts to only 23% of the necessary fill. It is extremely short-sighted and disingenuous to the public to state that a level of protection will be offered, without the resources to fulfill that promise. For this reason, we recommend that the Corps look at alternative options, like raising houses, to give the public adequate protection. Given this issue, we question the wisdom of taking some of the few areas of "high ground" in the coastal parishes and digging massive pits, thus causing even more loss of land in the coastal area and, in many cases, destroying critical storm surge protection.

GRN 1: The CEMVN homepage has been updated. A link at the top of the page directs viewers to www.nolaenvironmental.gov. The www.nolaenvironmental.gov website includes links to borrow handouts, public meeting calendar, and a variety of reports. Each public notice, e-mail distribution, mailing, and news release includes reference to the www.nolaenvironmental.gov website. During the comment period for IER 19 a link directly to the document was posted prominently on the www.nolaenvironmental.gov home page.

GRN 2: The NEPA Alternative Arrangements state that the public review period will be 30 days for each IER. Alternative Arrangements are an expedited process adopted to allow the Federal government to make the best decision possible in a time frame that meets the emergency conditions that it is operating in. A completion goal of June 2011 for HPS work has been set, and CEMVN is working diligently to meet that goal.

GRN 3: CEMVN is currently looking at borrow options around the New Orleans Metropolitan area, as well as outside of the state of Louisiana. It is not feasible to contact each resident individually. Notification is available through the CEMVN websites and notices in local and national newspapers. Notices are also sent out by mail and e-mail to interested stakeholders.

GRN 4: Environmental justice outreach efforts are being pursued by CEMVN for the entire New Orleans Metropolitan area. Environmental justice is an important part of the overall outreach effort being pursued by CEMVN, with more than 30 community group meetings planned over the next 12 months. This Addendum provides interested stakeholders another 30 day opportunity to voice their concerns on the proposed Federal action discussed in IER 19.

GRN 5: An index map has been added to IERs 18 and 19. Copies of the updated IERs are available at www.nolaenvironmental.gov or by contacting CEMVN. Cumulative impacts are an acknowledged data gap that will be addressed in future IERs as more information becomes available on the potential impacts of the HPS projects. In addition, the CED will discuss the cumulative impacts of the proposed Federal actions.

GRN 6: The requested public meeting was held on 10 December, 2007.

GRN 7: Public safety is CEMVN's highest priority and, as a part of that effort, IERs 1 through 17 are evaluating alternative designs so that the best engineering and safest solution can be achieved. These IERs will provide an analysis of alternatives such as: no action, non-structural, floodwall, and levee. CEMVN is working to identify additional sources for borrow, and additional potential borrow areas will be addressed in subsequent IERs. CEMVN is investigating sources throughout the New Orleans Metropolitan area as well as other parts of Louisiana and Mississippi. CEMVN must balance the feasibility of providing borrow material economically in an environmentally acceptable manner that meets the engineering standards established to provide the lowest risk of future disasters to the citizens of the area.

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Important Information Not Included: There are several necessary items in IER #18 and #19 that are not addressed. For example, IER #18 states that "IER #19 will also discuss barging or utilizing railroad to transport clay material from a remote site(s) as an alternative," and yet IER #19 states that "barge or rail transport of material from areas outside of the New Orleans Metropolitan Area...have not been selected, and are not discussed." If this alternative is not discussed, how are the public and the Corps supposed to make an informed decision?

GRN 8

Alternatives Analysis Not Adequate: In both IER #18 and #19, the Corps has failed to adequately perform an alternatives analysis to demonstrate how sites were and were not selected, or why material barged or shipped in from outside sources is or is not adequate or appropriate. Additionally different levee material (ex. hollow-core levees) alternatives must be addressed, especially given the obvious lack of clay material.

GRN 9

New Standards for Borrow Not Addressed: Both IER #18 and #19 fail to include the new standards for borrow. These standards should be included to ensure proper selection of soils for the state's levee rebuilding efforts.

GRN 10

B. Specific Comments

1.5 Public Concerns: It is concerning that this section is so short and is never re-addressed throughout the rest of the report. It is stated that "the public...feels that the remaining land left in coastal parishes should not be excavated," and that "the public feel(s) that the borrow areas should be backfilled." These aspects are not directly addressed anywhere in the document and require further explanation by the Corps. We would like to echo the public concern regarding digging massive "borrow" pits, which would remove some of the scarce high-ground in coastal parishes, especially with no plans of backfilling these areas and re-establishing the original habitat type (i.e. replanting) as well as invasive species management.

GRN 11

1.6 Data Gaps and Uncertainties: It is extremely difficult to look at these projects cumulatively or holistically without outlining the transportation routes for the delivery of the proposed borrow. This is a major concern that impacts traffic congestion, cost of borrow used, air quality, and aesthetics. There is not enough information from which to adequately assess those selected borrow areas and make an informed decision. As such, we request the Corps provide this information.

GRN 12

2.3 Proposed Action: It is stated that River Birch Phase 1 & 2 are future landfills. We require more information regarding these landfills, including Corps of Engineers, Louisiana Department of Environmental Quality, and Coastal Use permits. Further, many landfills require clay in order to cover and cap daily additions of waste; has this use of clay been accounted for in the amount of clay that will be available for levee construction?

GRN 13

GRN 8: Only two sites discussed in IER 19 will utilize barging if approved (Pearlington and St. Gabriel) and the route from the sites would be via the GIWW. No impacts are expected to occur as a result of the use of this site. All other sites discussed in the IER would be transported via truck.

GRN 9: IERs 1 through 17 will evaluate alternative designs of levee and floodwall projects, including hollow-core levees. Selection of sites was determined based on criteria discussed in LAC 1. Proposed borrow areas discussed in the IER meet all these criteria. Proposed borrow areas shown as declined failed to meet one or more of the criteria. Barging would be necessary for two Contractor Furnished sites considered under IER #19. This transportation method may become more important as the CEMVN expands its study area through the use of a Supply Contract. A task order was issued to David Miller & Associates on 5 December 2007 to complete a comprehensive transportation study of the HPS study area. This is an acknowledged data gap in the current documents that will be addressed in future documents as information is obtained.

GRN 10: CEMVN soil standards have been included in IER 19 and are discussed in LAC 2. Only soils meeting current standards will be used for construction of the HPS projects.

GRN 11: CEMVN is currently considering the feasibility of backfilling Government Furnished borrow areas.

GRN 12: This is an acknowledged data gap in the current documents that will be addressed in future documents as information becomes available. We concur that there will be unavoidable impacts associated with the transport of borrow material to the HPS project sites, but these impacts will occur regardless of the sites selected. In an effort to address this issue, a task order was issued to David Miller & Associates on 5 December 2007 to complete a comprehensive transportation study of the HPS study area.

GRN 13: The proposed River Birch sites are part of an approved landfill and is not subject to USACE authority beyond the Clean Water Act permitting process that is administered through the CEMVN Regulatory Branch. Additional information can be obtained about the landfill operation by contacting Louisiana Department of Environmental Quality (LaDEQ) or the landfill owner directly.

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2.4 Alternatives to the Proposed Action: Once again barge or rail transport of material outside of the New Orleans Metropolitan Area is all but ignored. This section states that this is "not discussed" in this document. If it is not discussed in the two IER's dealing with borrow, where will it be discussed?

GRN 14

3.1 Environmental Setting: The information in this section is not very accessible to the public because it contains technical terminology. Specifically, the headings in Table 1 must be explained and/or defined in layman's terms: For example, what does the "drained" heading refer to, and what is the difference between soil types?

GRN 15

3.2.1 Jurisdictional Wetlands: The IER states that "At this time, the CEMVN Regulatory Functions Branch is not issuing Clean Water Act 404 permits to landowners for the purpose of need of providing borrow materials to the HPS from areas deemed to be jurisdictional wetlands" (emphasis added). While we agree that wetlands should not be destroyed for this purpose, we are concerned that the Corps uses the phrase "at this time." Does this mean that wetlands might be destroyed in the future? If the Corps is committed to preserving our wetland resources, a stronger statement must be made.

GRN 16

There are also at least two concerns in the discussion of impacts in this section. 1) There is no discussion regarding indirect and secondary impacts. Many of these sites are proposed adjacent to wetlands, so indirect and secondary impacts must also be addressed and avoided. 2) This IER states that "the Eastover proposed borrow area contains ponds that are classified as jurisdictional other waters, and can be excavated without a permit." We question this assertion. Our understanding is that damage to jurisdictional waters must be avoided, and if not avoided, at least minimized and mitigated for. Please explain how jurisdictional waters can be destroyed without a Section 404 permit.

GRN 17 GRN 18

3.2.10 Noise Quality: First, we question how effects on noise quality can be deemed "minimal" when it is stated that "there is not data available regarding the existing conditions." If there is no base-line, how can a judgment be made? Also, this determination contradicts itself, stating both that the effects would be "minimal" but also have short term "high" sound levels. Many of these areas have residents nearby. Have these residents been directly contacted to inform them of the noise pollution that is expected to occur?

GRN 19

3.2.11 Air Quality: Again it is stated that the impacts would be "minimal," but there is no evidence of how air emissions will not "significantly impact air quality in the region." Often, these projects are referred to as "short duration," but there is no statement of how long these projects would be polluting the air in the local regions. Again we also ask if the local residents have been directly contacted to inform them of the air pollution from heavy machinery that in some cases will be operating in close proximity to their homes and families. Some of these families might have health problems that could be exacerbated by the pollution and particulates that will be emitted from these projects. The Corps must address this public information issue.

GRN 20

GRN 14: Two of the proposed sites would utilize barging via the GIWW to get borrow material to construction sites. It is not expected that there will be any impacts due to material being barged to the HPS project sites. The transportation study will complete an analysis on the use of barges to move borrow material to the HPS project sites. The information learned from that study will be provided in future documents as it becomes available.

GRN 15: The information presented in this table was determined to be not relevant to the IER and was removed from the document.

GRN 16: At this time, CEMVN is avoiding impacts to wetlands. It is possible that once reasonable and practicable alternatives to avoiding wetland impacts are exhausted that some wetlands may be utilized as HPS borrow sites. Those sites and any impacts associated with them will be discussed in future borrow IERs if it becomes necessary to investigate wetland areas as potential borrow sources. Governmental agencies and the public would be involved in this process.

GRN 17: BMPs would be followed by CEMVN contractors during the excavation of the proposed borrow areas to avoid any direct impacts to wetlands. Excavation site plans would factor in appropriate setbacks, retention dike construction, etc. to avoid causing secondary impacts such as altered hydrology on any wetlands located in the vicinity of a proposed borrow area.

GRN 18: The proposed Eastover borrow area was determined to not contain waters subject to CEMVN jurisdiction under the Clean Water Act.

GRN 19: Excavation of material from the sites will be completed relatively quickly. As a result, noise impacts are determined to be minimal and temporary in nature. Public notification has occurred as part of the public involvement phase of this project.

GRN 20: Excavation of material from the sites will be completed relatively quickly. As a result, air quality impacts are determined to be minimal and temporary in nature. Public notification has occurred as part of the public involvement phase of this project.

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Additionally, this IER states that "the construction equipment and haul trucks should have the same emissions as local traffic in the areas." We request evidence of this assumption and argue that this heavy machinery will increase the air pollution in the area.

3.2.12 Water Quality: First, we question how effects on water quality can be deemed acceptable when it is stated that "there is not data available regarding the existing conditions." If there is no base-line, how can a judgment be made? We also question the effectiveness of implementing best management practices (BMPs). In fact, we have visited potential borrow sites that do not have adequate BMPs in place (see Figures 1-4). Given the fact that existing BMPs are not being implemented correctly on these projects, how can the Corps assure that they will be properly implemented and managed in new projects?

In addition, the IER indicates that some borrow areas may be drained by sump pump, however no further information or references are made in the document. The groups request information on this, especially as to where the water is to be pumped and if water quality problems such as turbidity are of concern. Also, if these areas are being pumped out, we request that they secure Louisiana Pollutant Discharge Elimination System (LPDES) permits prior to excavation.

3.3.1 Land, Water, Minerals, Fisheries, and Agriculture: Under "Proposed Action," it is stated that "a relatively small amount of land is used for agricultural purposes." We question this and request evidence. Many areas in the coastal parishes are used for crops, forage, and cattle grazing, including some of the proposed areas in IER #18 and #19.

3.3.3 Business, Industry, Employment, and Income: Similar to the above comment, farming and cattle grazing are not adequately addressed in this section, even though agriculture obviously fits into this category as well. In fact, IER #19 goes so far as to say that "none of the proposed project sites have been identified as impacting business, industries or related employment." We question this assertion and request evidence supporting it.

3.3.4 Population and Housing: We feel that the proposed borrow pits will have significant impacts on the population and housing. The IER states that "while adjacent areas include urban and suburban developments, the engineering design and environmental analysis indicate no adverse impacts to housing units." We question how the excavation of 20 foot deep pits with heavy machinery will not at least indirectly impact adjacent housing and neighborhoods.

3.3.5 Property Values, Tax Revenues, Public Facilities, and Services: What census information was used? Was it pre- or post-Katrina data?

GRN 21

GRN 22

GRN 23

GRN 24

GRN 25

GRN 26

GRN 27

GRN 21: Equipment used to remove and transport borrow material would have temporary impacts on air quality in the borrow pit area. There is no expectation that air quality outside of the borrow area would be impacted.

GRN 22: CEMVN has determined that Figures 1 and 2 are not related to any planned USACE project in the area. Figures 3 and 4 appear to have been taken of the DK Aggregates site discussed in IER 19 as a possible Pre-Approved Contractor Furnished site. CEMVN does not have any projects currently taking place at this location. If you believe there is an activity going on that is not being properly implemented we suggest that you talk to the local government officials who may have jurisdiction over the activities in question. All borrow sites utilized by USACE would employ appropriate BMPs and would have in place a QC/QA program in place to ensure that the BMPs are followed.

GRN 23: CEMVN's intent is to manage waters found on any authorized borrow areas. If it is determined that water can not be contained on-site, then any NPDES permits required would be obtained. Storm water permits would be obtained as per standard operating procedures.

GRN 24: The statement that "a relatively small amount of land is used for agricultural purposes" applies because agricultural endeavors are a small part of the economy of the New Orleans MSA, relative to other industries.

GRN 25: The borrow sites discussed in IER #19 have been nominated by the landowner for use as a borrow site. As such, the landowner has made the decision as to the best use of his or her property.

GRN 26: There would be potential temporary impacts during construction. These include noise and air quality impacts and traffic congestion in or near the borrow areas. There would be no lasting adverse impacts to housing units in the area.

GRN 27: The data used is from the 2000 US Census. Relevant data is not yet available to reflect post-Katrina conditions.

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3.3.7 Health and Safety: It is evident that there is no intention to back-fill all of the borrow pits, thus large deep ponds will be left behind. Mosquitoes are already problematic in the coastal parishes, and large expanses of open fresh water will only exacerbate this problem. Especially with the possibility of increased tropical diseases in the region, this is a major concern and must be included in the Corp's analysis of all borrow projects.

GRN 28

3.3.8 Community Cohesion: Many of these proposed projects are located adjacent to homeowner's property and neighborhoods. This section also states that "public involvement with the community is part of this process." The public participation process for this entire expedited NEPA process has not been adequate. Each residence adjacent or within half a mile of these projects should be personally notified in writing of the massive dirt removal that will occur nearby and public meetings should be held as well.

GRN 29

4. Cumulative Impacts: We question the assertion that "efforts taken to avoid and minimize affects on the project area and the mandatory implantation of a mitigation plan that functionally compensates unavoidable remaining impacts the proposed borrow areas would not result in substantial direct, secondary or cumulative adverse impact on the environment." We request further evidence that these projects, cumulatively with IER #18, will result in no adverse impact to the environment.

GRN 30

6.6.1 Public Involvement: See general comments.

7. Mitigation: In order to ensure that mitigation will take place, we request that all mitigation will take place prior to, or at least in tandem with any excavation projects. Also, there is no mention of mitigation for "non-wet" bottomland hardwood, even though USFWS has requested this mitigation.

GRN 31

Thank you for the opportunity to comment on IER #19. We expect that you 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 agency to discuss our concerns.

Sincerely,

Matt Rota
Gulf Restoration Network

Jill Mastrototaro
Lake Pontchartrain Basin Foundation

Leslie March
Sierra Club, Delta Chapter

GRN 28: See LB 24.

GRN 29: CEMVN disagrees with this statement and believes that actions taken to notify the citizens of the New Orleans Metropolitan area have been more than adequate. CEMVN will continue to explore reasonable methods to engage stakeholders in the NEPA process for the proposed HPS projects. CEMVN is open to forming partnerships with any community groups or NGOs that would increase the level of public awareness of the proposed HPS projects.

GRN 30: The cumulative impacts assessment for the HPS projects is an on-going dynamic process. As additional information is gathered, the cumulative impacts assessments will become more defined. This information will be discussed in future IERs and the CED. CEMVN is not able to say at this time that the completion of the proposed 100-year HPS work will not have adverse impacts on the environment.

GRN 31: For the proposed Pre-Approved Contractor Furnished borrow areas described in IER 19, the landowners are responsible for jurisdictional wetland mitigation, if required by CEMVN's Section 404 program. Any impacted non-wet bottomland hardwood forests will be mitigated for by the landowner under CEMVN guidance. USFWS recommendation #1 (Section 6.2 in IER #19) as stated in the IER discusses the need for approximately 5.4 acres of non-wet bottomland hardwoods to be mitigated for if the site is utilized as a borrow source. CEMVN clearly states that it will work with USFWS to address the mitigation recommendation. CEMVN has been in contact with the landowner, who has been made aware that if the site is utilized mitigation will be required for the impacts the bottomland hardwoods located on the site.

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Eugene Ben A.I.A
Benroe Housing Initiatives P.C

Monique Harden and Nathalie Walker
Advocates for Environmental Human Rights

Marylee M. Orr
Louisiana Environmental Action Network/Lower Mississippi Riverkeeper

William A. Fontenot

Bev Hoffman
Unitarian Universalist Service Committee

Darryl Malek-Wiley
M-W & Associates

Mark Ford
Coalition to Restore Coastal Louisiana

Tracy Kuhns
Louisiana Bayoukeeper

Michael Roberts
Association of Family Fishermen

Pam Dashiell
Holy Cross Neighborhood Association

Sandy Rosenthal
Levees.org

Attachments included

CC:

Horst Greczmiel, CEQ
Dinah Bear, CEQ
Michael Brown, US Army Corps of Engineers, New Orleans District
Barry Kohl, LA Audubon Council
Tulane Environmental Law Clinic
Mark Davis, Tulane University
Jeff Dautat, Louisiana Department of Environmental Quality

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Figure 1. Cleared area for borrow extraction on Bayou Rd. and Jerose Dr. Note lack of BMPs and clearing all the way up to the water body.



Figure 2. Cleared area for borrow extraction on Bayou Rd. and Jerose Dr. Note lack of BMPs and clearing all the way up to the water body.

GRN Figures 1 and 2: The site identified in the pictures is not a part of the proposed Federal action described in IER #19.

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Figure 3. DK Aggregates Proposed Borrow Area. Appears to potentially be wetland. Also note lack of BMPs and clearing all the way up to the water body.



Figure 4. DK Aggregates Proposed Borrow Area. Appears to potentially be wetland. Also note lack of BMPs and clearing all the way up to the water body.

GRN Figures 3 and 4: The site identified in the pictures appears to be the same site identified in IER #19 as the proposed DK Aggregates Pre-Approved Contractor Furnished borrow area. Any activities that have occurred on this site are the results of the landowner and/or his or her agents, and are not associated with CEMVN's proposed action. The DK Aggregates site identified in IER 19 for possible use has been determined to not contain any waters subject to Corps Clean Water Act Section 404 jurisdiction.

4. Borrow Public Meeting

A public meeting focused on borrow issues requested by two NGOs was held on 10 December 2007 at the New Orleans District, New Orleans, Louisiana. The meeting format included an overview of draft IER #18 (Government Furnished Borrow Material) and draft IER #19. Borrow material selection criteria was also presented. The public was then given the opportunity to comment on the proposed actions.

In addition to CEMVMN staff, approximately 60 people attended the meeting. The following are minutes from the meeting.

Public Meeting Recap

IER 18 Public Meeting
Monday, December 10, 2007

Location	New Orleans District Assembly Room 7400 Leake Avenue New Orleans, LA 70119
Time	4:00 p.m.
Attendees	Approximately 100 and staff
Format	Presentation then Q & A
Handouts	<ul style="list-style-type: none">• Presentation• IER 18• IER 19• Borrow-related correspondence
Facilitator	Col. Murray Starkel Welcome by Col A. Lee, District Commander Presentation by Michael Brown, Environmental Manager Presentation by Richard Varusso, Geotech Manager

Introduction

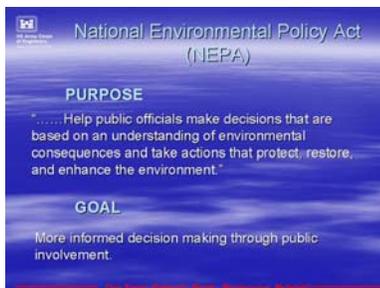
Col. Murray Starkel introduced Col. Alvin Lee

Welcome/Why are we here

Welcome by **Col. A. Lee:**

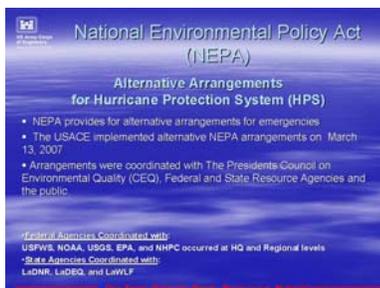
Good afternoon, thanks for coming to the meeting today. I'd like to introduce who we have here including Col. Jeffrey Bedey and Karen Durham-Aguilera.

The Corps needs borrow to complete the hurricane risk reduction system. We need over 100 million cubic yards of borrow, that's enough to fill the Superdome 20 times, to give you a comparison.



NEPA helps us make decisions. We need a better understanding of the impacts to the environment our projects may have and we need to understand all the impacts. We have to take into account all of these impacts and our goal is to make an informed decision [about the hurricane protection system] through public involvement.

We have the IER process that Col. Starkel mentioned. This meeting is about IER 18 and 19 and it is critical that we include public engagement opportunities. We have a public comment period. Comments we received asked for additional public meeting so you could provide additional comments.

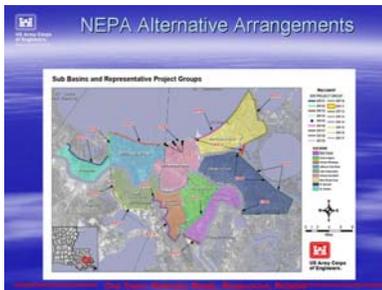


Under NEPA we get alternative arrangements so we're implementing these arrangements in coordination with the President's Council on Environmental Quality, which we refer to as CEQ. Public involvement is a critical component. As you can see, there are federal agencies involved in this process including NOAA, USGS, EPA, NHPC and all

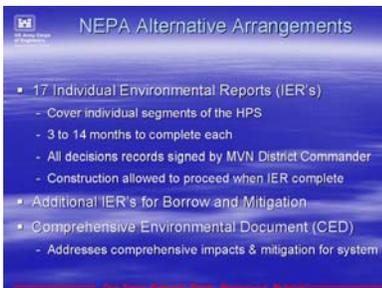
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interactions have occurred at the office headquarters and regional offices.

Also coordinated with state agencies you see at bottom of slide. We'll review natural resources and work with DEQ. So you get an idea of what we've done under NEPA.



This map shows how we've divided the IERs. They're broken up by sub-basin and IERs 18 and 19, they encompass the entire area. That's what we're looking at during IER 18 and 19.



This slide talks about the alternative arrangements. It shows what segment they consist of and the time needed to complete them. To make a decision about the system these documents will be brought to me for approval. We will have an additional IER for borrow and also for mitigation. These IERs are about borrow, that's why you're here.

As you comment, I'd like you to keep in mind a couple things: It's important to understand that public safety is our number one

concern. New Orleans is critical in building the new system.

We have done an electronic request for sources sought. What that means is we've asked the public and contractors from all over the country to provide sources of borrow. We have three methods for obtaining borrow.

1. Government Furnished
2. Contractor furnished
3. Supply contract

We've gone out to seek additional sources to build the hurricane protection system. We've done a detailed analysis of polders or sub-basins. It showed different areas where we could get the borrow and we have a borrow team who is heading up this effort. They have done a detailed analysis and they're looking for locations where material can come from. In some cases, there is not enough borrow available. We went on Friday to seek additional resources. I wanted to give you that overview today.

Now the team will provide additional information about IER 18 and 19 for you. Public input this evening is critical.

Presentation

Col. Starkel introduced Michael Brown. Brown is the project manger and the functional lead of regularity and environmental on the borrow team



Presentation by: Michael Brown, Environmental Manager:

Thank you for participating in the meeting tonight. I'm here to discuss IERs 18 and 19. They are titled Government Furnished Borrow and

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Pre-Approved Contractor Borrow. We'll also discuss future IERs that will be covered in IERs 22 and 23.

Program Borrow Needs
150 Million Cubic Yards

	Number	Estimated Quantity (Cubic yards)
Program Borrow Needs		Over 100,000,000
IER 18 GF Sites Investigated	23	
IER 18 GF Sites Proposed for Borrow	12	26,494,000 (16%)
IER 18 GF Sites Investigated and Denied	11	

LEGEND
 GF - Government Furnished
 Denied - Due to site size, wetlands, and soil analysis

The Corps currently needs over 100 million cubic yards of borrow. **IER 18 is about Government Furnished Borrow.** For this IER we investigated 23 sites. Of those, 11 sites were deemed unsuitable; they were declined because they were too small, had poor geotech or were wetlands. IER 18 includes 26 million cubic yards of borrow, that's also 16 percent of the total needed.

- Environmental Process
- Signed right of entry
 - Received wetland determination letter
 - Revised borrow maps to avoid wetlands
 - Coordinated with U.S. Fish and Wildlife Service

The NEPA process for Government Furnished Borrow required a signed right of entry, then maps to certify the wetlands determination. If we found that a site was a wetland then we'd avoid wetlands by revising the map. We also coordinated efforts with the US Fish and Wildlife Services.

- Environmental Process
- Coordinated with Louisiana Department of Natural Resources
 - Participated in a site visit to clear for geotech borings/mitigation data
 - Completed Cultural Resources Report for State Historic Preservation Office & Tribes review
 - Received Phase 1 Environmental Site Assessment

Then we needed a concurrence, and coordinated with the State Natural Resources Department. That was followed by a site visit to clear for geotech concerns or come up with mitigation sites. We're still avoiding wetlands.

- Non-wet Bottomland Hardwoods Mitigation
- Required under the Section 906(b) of the Water Resources Development Act of 1986

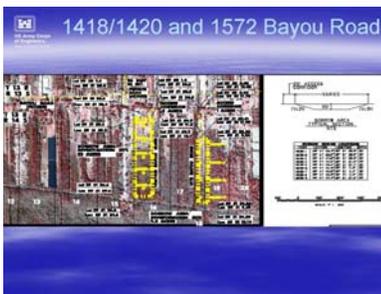
Then we do a site assessment. Sometimes we'd collect mitigation data and we're required to mitigate through 906b of the Water Development Act.

IER 18 Government Furnished Sites Proposed for Borrow (12)

Name	Parish	GF Use	Initial Site Investigated (acres)	Site After Avoidance (acres)	Approx. Cubic Yards
1418/1420 Bayou Road	St. Bernard	GF	43.3	22	10,000,000
1572 Bayou Road	St. Bernard	GF	9.5	9.5	10,000,000
1572 Bayou Road	St. Bernard	GF	21.7	21.7	11,000,000
1411 Bayou Road	St. Bernard	GF	11.4	11.4	10,000,000
1572 Bayou Road	St. Bernard	GF	94	107	10,000,000
1572 Bayou Road	St. Bernard	GF	2.8	2.8	10,000,000
1572 Bayou Road	St. Bernard	GF	34	34	10,000,000
1572 Bayou Road	St. Bernard	GF	102	96	450,000
1572 Bayou Road	St. Bernard	GF	2,000	100	4,000,000
1572 Bayou Road	St. Bernard	GF	127	112	11,000,000
1572 Bayou Road	St. Bernard	GF	1,118	600	11,100,000
1572 Bayou Road	St. Bernard	GF	200	100	10,000,000
1572 Bayou Road	St. Bernard	GF	200	100	10,000,000
Total			26,494	15,614	26,494,000

LEGEND
 GF - Government Furnished
 GF - Government Furnished
 Denied - Due to site size, wetlands, and soil analysis

These are the sites included in IER 18.

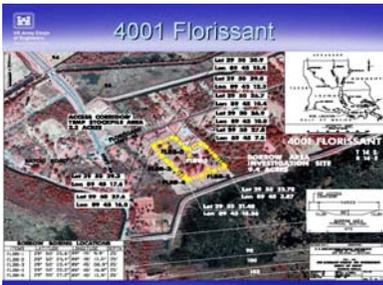


1418, 1420 and 1572 Bayou Road in St. Bernard. This map shows 1572 Bayou Road. It was investigated for 43.3 acres. Only 22 acres are suitable because of wetlands avoidance. 1572 Bayou Road is a 9.5 acre site.

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910 Bayou Road is an 11 acre site.



Florissant is an 11.6 acre site.



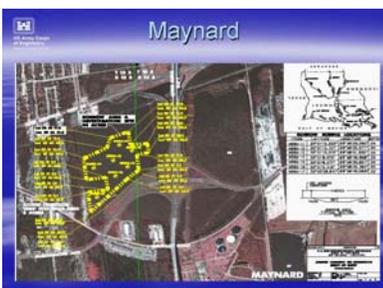
Dockville is 144 acres. Currently, 107 acres are proposed for borrow.



Triumph is in Plaquemines Parish. It would be an expansion of an existing pit.

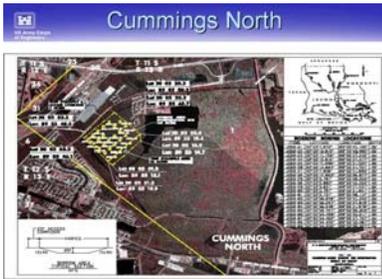


Belle Chasse is in Plaquemines Parish. This is on the naval base. They want a pond for recreation so now it's [inaudible].

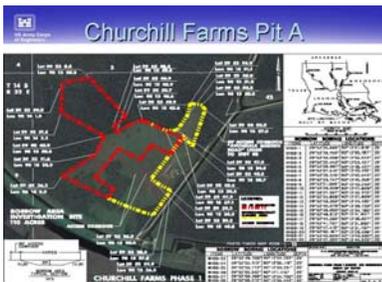


Maynard is in Orleans parish. The original investigation was of 102 acres but it was reduced to 44 acres because of wetlands.

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Cummings North is also in Orleans Parish. 2,000 acres were investigated but only 182 acres are suitable for borrow because of wetlands and poor geotech.



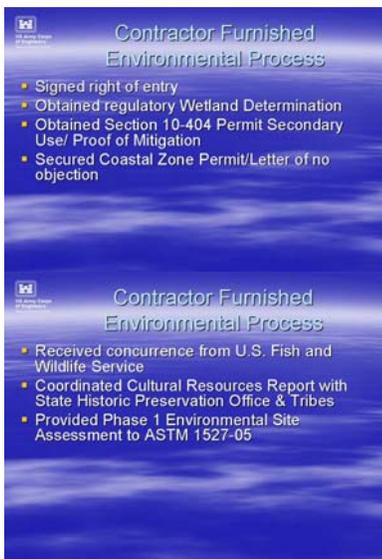
Churchill Farms Pit A included an original 123 acres, but only 110 acres are suitable.



Bonnet Carre North was investigated for 1115 acres but only 680 acres are acceptable. The surrounding site has topography and wetlands we needed to avoid.



Westbank G site is in Jefferson Parish. We investigated 82 acres, but just recently got geotech's review back. This site will be declined. It won't go further.



IER 19: Contractor Furnished Borrow

The contractor furnished borrow process is a little different. The contractor must provide a completed environmental packet with clearance [papers to the Corps]. We require a signed right of entry and jurisdictional wetland determination letter. The regularity branch of the Corps is not signing [inaudible] now, but for example a sub-division, such as retention pond would provide suitable [borrow]. That would be acceptable [to the Corps] if other sources [agree]. We would still need a coastal zone permit.

We need clearance from the US Fish and Wildlife Service also. The contractor would provide cultural resources and there would be

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coordination with the State Tribes Department. A Phase 1 site assessment is required.

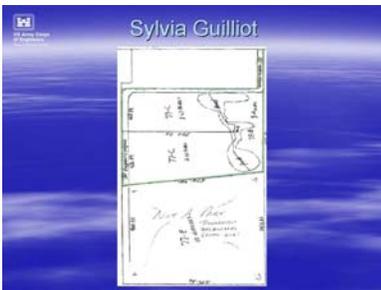
Contractor Furnished Borrow

	Sites	Estimated Quantity (Cubic yards)
Program Borrow Needs		over 100,000,000 million yards
IER 19 Contractor Furnished Sites Proposed for Borrow	9	8,390,000 (8%)

The hurricane protection system currently needs over 100 million cubic yards of borrow. IER 19 could cover 8 million cubic yards, or 6 percent of that total.

IER 19 Contractor Furnished Sites Proposed for Borrow (9)

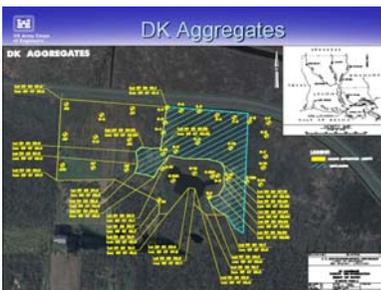
Name	Parish	Initial Site Investigated (acres)	Approx. Cubic Yards
Sylvia Guilliot	St. Bernard	10.7	270,000
Gatien Navy Hope	St. Bernard	7.5	200,000
DK Aggregates	St. Bernard	58.5	1,420,000
Kimble #2	Plaquemines	10.4	920,000
River Birch Phase 1	Jefferson	9.7	200,000
River Birch Phase 2	Jefferson	78.4	3,500,000
Prattington Dist Phase 1	Mississippi	98	1,000,000
Eastover	Orleans	36.9	900,000
St Gabriel Redevelopment	Iberville	122.6	800,000



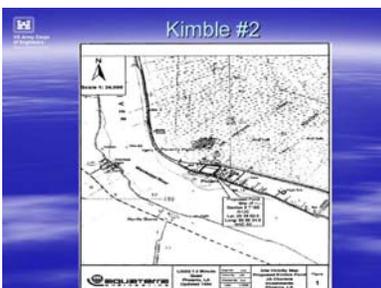
Sylvia Guilliot is 10.7 acres.



Gatien has 7.5 suitable acres.



DK aggregates has 58.5 suitable acres.

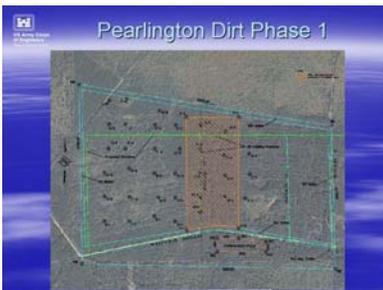


Kimble has 10.4 suitable acres.

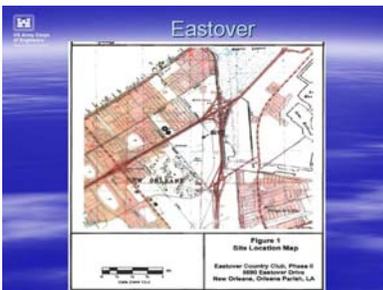
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River Birch 1 and 2 regularity was permitted for a landfill. This site has suitable soil and we're using this in the system.



Pearlington Dirt Phase 1 is 98 acres. We'll need to revise it in IER 19 because transportation can occur only by barge or rail.



Eastover is in Orleans Parish. It's a 36.6 acres site.



St. Gabriel redevelopment could be transported by barge.

IER 18 and 19 Proposed Borrow Sites by Parish

Parish	Size (acres)	Approx. Cubic Yards
St. Bernard	239	3,804,000
Praquemines	21	360,000
Orleans	263	5,338,000
Jefferson	200	4,850,000
St. Charles	660	16,932,000
Iberville	122	800,000
Hancock County, MS	98	1,000,000
Total	1623	33,084,000

The borrow site by parish slide gives you an idea of how many acres and cubic yards are taken from each parish.

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IER 22 Government Furnished #2 Sites Proposed for Borrow (6)

Name	Parish	HPS Use	Initial Site Investigated (acres)	Site After Avoidance	Approx. Cubic Yards
Brad Buras	Plaquemines	NOV	9	9	224,000
Chauvin	Plaquemines	NOV	28	28	872,000
Tabony	Plaquemines	NOV	171	171	3,735,000
Westbank F	Jefferson	WBV	155	152	3,962,000
Westbank I	Jefferson	WBV	79	33	806,000
Westbank N	Jefferson	WBV	145	69	1,949,000
Total			587	482	11,048,000

Future borrow sites will be identified in IER 22. There are six sites proposed, three in Plaquemines; Brad Buras, Chauvin and Tabony. The acreages are shown in the table.

There are three sites in Jefferson Parish: Westbank F, I, and N. These sites could provide 11 million cubic yards of borrow.

IER 23 Contractor Furnished #2 Sites Proposed for Borrow (5)

Name	Parish	HPS Use	Initial Site Investigated (acres)	Approx. Cubic Yards
Acosta	St. Bernard	LPV	29	1,000,000
1025 Florissant	St. Bernard	LPV	3	100,000
3C Riverside	St. Charles	WBV	258	6,000,000
Myrtle Grove	Plaquemines	NOV	271	6,750,000
Pearlington Dist Phase 2	Hancock County, MS	LPV	110	2,500,000
Total			671	16,350,000

IER 23 covers the next contractor furnished borrow sites. It will cover 5 sites; two in St. Bernard; Acosta and Florissant. In St. Charles we're calling that site Riverside. Another site in Plaquemines is Myrtle Grove. There is another site in Mississippi called Pearlington 2, we may use barge or rail to get that borrow out.



Thanks for the opportunity to present this information to you and thank you for coming to the meeting. You can view the IERs in full at www.nolaenvironmental.gov.

If we received a written comment in the mail from people in the audience, you'll get a written response shortly.

Following presentation by: Richard Varuso, Geotech Manager



We know you may have technical questions about borrow so we will take a few minutes to determine borrow criteria.

Proximity of borrow to levee location is important because the close sites allow us to be more cost effective. Every site is investigated with the same criteria. The technical requirements are reviewed so we use site specific borrow borings.

There's general information when it comes to technical people for approval. We site specific borings. The borings are about 1 1/4 in diameter and go about 20 feet deep. Then we take information from the borings to the lab and a technician tests the sample. The test will give us a classification and tell us the moisture content.



We look at Atterberg limits, which show elasticity. The amount of acceptable borrow is something we look at. Every borrow site is not the same. One may have 20 feet of material, others may have the top 10 feet unsuitable but it could still be used for levee construction. Environmental concerns are involved in approving or disapproving sites.

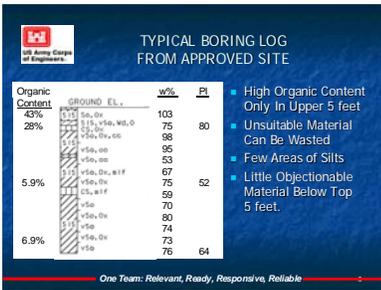
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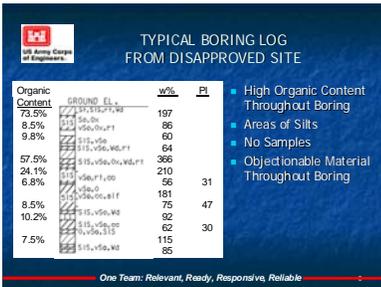
This is a typical layout; you see borings are spaced every 500 feet to get an idea of what's there. You can use different zones. We don't want to approve or disapprove a site just on one boring.



This is geoprobe, it shows that the site instrument we use is non-invasive, it's small and takes a 1 1/4 sample. This is all tested in the lab.



This borrow is from an approved site, it's indicative of sites that are approved or disapproved.



Basically, we look for organic content so in this example this material wouldn't be approved. We could remove the upper part of the pit to get to deeper area where soil is okay. This is typical of red borrow boring. It may be disapproved. The organic content is much higher, and there is too much silt. Some areas of no samples of [inaudible] that have wood if we see this in a large area the site could be disapproved.

Investigating borrow site is the first step. Investigation of soils used continues throughout construction. Just because borrow was approved as mud we still check to see that it meets our strict criteria on either the flood site or protected side of the levee. We still check on the soil once the borrow is placed. We check every 12 inches; we take post construction borings to make sure levee construction is appropriate.

Questions and Answers Facilitated by Col. Starkel:

As you can see, this is a complicated issue. [inaudible] We still need to locate and acquire [borrow]. As we continue to investigate borrow pits, we're going to continue to come back and get comments on environmental impacts as they relate to borrow.

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Questions

1. **Jerome Klier, 3440 Mayor St. in Walker, La.:** My question is not about what you're doing here, it's about the Comite River diversion project in Baton Rouge. Over 7 million cubic yards of excavation is required. If we flatten slopes, we could acquire additional borrow. Federal dollars are involved in this process, so this is free dirt. The channel has access to the Mississippi River. Riffraff will come from Arkansas to supply dirt because it's bisected by railroad. I recommend the Corps looks at using channel excavated dirt as it is suitable for levees.

Col. Starkel: We looked at it, but the transportation cost eats your lunch. We're looking at it.

Jerome: This is good material that may be able to be used. Will numbers be included?

Starkel: We're looking at numbers.

2. **Villare Cross, Manson Gulf Construction:** When you list property as government furnished borrow is it actually already turned over to the government?

Col. Starkel: No, not yet.

Cross: Recently started [inaudible] is Lake Cataouche we have a considerable amount of borrow for levees that we aren't using in phase 1, is there any expectation of using that leftover borrow for other projects?

Tom Podany: At this point, that material could be used for other projects. We haven't specifically dedicated to the west bank; it's optionally usable in other projects.

A section of Lake Catouche from Hwy. 90 to our project is currently out for bid

Cross: Is there an expectation to use that borrow for that project?

Sohelia Holley: We are not sure if there is enough quantity of the material.

Tom: We're not locking in borrow to the project. We've identified where it might be used.

We have a spreadsheet of data that shows what borrow goes where, but an individual contractor might have a need. For that borrow we haven't entitled a material for that use. That material isn't set aside now.

3. **Barry Kohl, Louisiana Audubon Council:** I hope my comments will be included in the amendment I see that the federal regulation requires. Will written comments go to me?

Mike Brown: Yes, written comments will be sent back to you.

Kohl: The basis of my letter was regarding pre and post- Katrina borrow standards.

Throughout the borrow procedure I got a memo which outlined pre and post-Katrina soil standards. They've changed significantly, most likely because it [soil] was considered unsuitable. IER 18 and 19 omitted criteria for selection of borrow. We've asked that the criteria be included. Without it, we don't know how selection is being pursued. You said some borrow isn't included because of geotech issues. There should be rationale as to why it [the borrow] was rejected along with reference to borrow standards that are post Katrina.

Acceptance or rejection of each site is important for the wetlands. Integrity of soil is significant and should have been addressed in detail in the first IERs. It was a great omission. I'm a geologist, I pay attention to details and those should be in those documents. I will make additional comments later.

4. **Richard Robichala:** My family owns property in Jefferson Parish which is being looked at for government furnished borrow. Is there any discussion of fair price rather than commandeering?

Linda Lebeur: As part of the process, even if land is commandeered, it doesn't negate appraisal for the owner. That will be part of the process.

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Robichala: There is a difference between actual dirt and price. The new price could be 10 times greater.

Lebeur: As a real estate action, the department of justice standards require that we take an interest in real property. We start at fair market then work with the owner who may make a counter offer. There's a give and take in these situations, to find out what constitutes just compensation in their minds.

Robichala: So if I show you the price I got the dirt for before I can get that price?

Lebeur: We can talk about that. Anything you want to present to use as a negotiation tool to get amicable settlement we'll look at.

Robichala: If you'd come out and give a price you'd have more [borrow] than you could use.

Col. Starkel: We invite you and others who have sites to bring information to us so we can put it into the market analysis. It may turn out that supply exceeds demand and the Corps would get a lower price.

Robichala: If you gave a fair price, you'd get your borrow.

5. **Unknown speaker: Is the article on borrow I read in the Times Picayune in which Rick Kendrick is quoted accurate?**

Col. Bedey: If you boil down everything, we're still at 41 percent of the total borrow we need [inaudible]. So we're pursuing multiple courses of action. We have to look at government furnished [borrow], then we have to look at contractor furnished. Next, we look at supply contract; this is about fulfilling the obligation of the USACE to provide 100-year protection. I'm restating what Rick Kendrick referred to in the article, which is that we're trying to listen to stakeholders. We're looking at the potential of doing "out of the box" things. Will we be able to do it? That is yet to be seen. We have a solicitation that says in simple terms, "give me a price for dirt that can be delivered that meets specifications." If you win the contract then we'll issue a task order that says "on this date deliver this much dirt to this site." We'll let the market drive cost but we're talking about doing a reverse bid auction. If you have dirt we'll give a pin number and you can bid up. Using that example, we will take input whether from St. Bernard or Mississippi to help us meet this obligation. Our mission is to reduce risk. Rick Kendrick said that we're going in that direction [of using a bid system]. That may not happen, but we'll give it a shot. We'll do that concurrent with what we're doing with the IER meetings. Within the next 60 days we could do an auction.

Unknown speaker: That's the best thing I've heard from the Corps in months.

Col. Bedey: Thanks, that's the team. We know we can't take all the dirt from St. Bernard because of lift requirements. It might be prudent to save the dirt. We may have to get to that dirt at some time. We have to realize that we're in an area where there is subsidence and we'll need future lifts.

6. **Blake Jones, Crescent Area Management:** I like ducks and people but I fear that if you pull dirt closest to the levee, it might be an area people want to go back to. You might be protecting dirt and not people. What I'm looking at is the focus on environment as opposed to looking at the practical side of things. [The Corps should] pay more for dirt from far away so people can build subdivisions and houses. The 'sliver by the river' is there. You're looking for clay but that's the high ground. You don't want to just build levees for ducks on a pond. Will you consider paying more for dirt from far away and not from here where people build houses?

Col. Starkel: We look at more than bugs and bunnies; we look at human impacts too. We'll take this into consideration for all sites.

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7. **Pete Babinth:** I'm a limited partner with 3,000 acres better known as Cumming's Tract. Cumming is out of town and he asked us to ask questions. Cumming wrote a letter to Col. Lee explaining the possibility of assembling a considerable amount of clay in hopes that the Corps would look into that to offer an RFP [request for proposal] to someone who had the ability to assemble clay and have it delivered. Am I correct that the Corps is doing this?
- Col. Bedey:** Yes. The Corps had commandeered acreage of Chef Menteur during an emergency. The way I interpret the map, some land that we have parallel to Chef Menteur is continuous to property that was expropriated. [My understanding is that] maybe that property has been declined.
- Babinth:** My understanding is that maybe that property has been declined.
- Brown:** I would have to look at the map to tell you for sure.
- Babinth:** How could the same piece of property be used then declined?
8. **Matt Rota, Gulf Restoration Network:** I submitted written comments and I also have a few things to say. Number one is that IERs 18 and 19 are testing ground for what's going to be 25 or 30 IERs from now. Right now the public participation aspect is inadequate. Meetings have been a "come and ask questions" format. I work for an environmental organization and I didn't know about nolaenvironmental.gov. That's lacking. Number two, a lot of borrow pits are next to homes. IERs 18 and 19 make it look like no one lives there. I'm talking about St. Bernard because I drove by and took a look. Has someone gone out to the neighborhoods to let people in the neighborhoods know about a 20 ft hole that will be dug in their back yard? That's important to let them know about air quality and erosion. People there need to know about this. Another thing I have concerns about is water quality. I've seen no best management practices except for ditches in the waterway. I submitted pictures with my comments. I don't see how future IERs can be done correctly if we're avoiding wetland impact. I have questions about making sure there are buffer zones and also on secondary impact on wetlands. I want to make sure there are not secondary impacts. What about mitigation with contractor provided borrow? You say that if they have a 404 permit then that can be used for secondary action, has anyone gone out to check on mitigation? They shouldn't be using borrow without certifying mitigation. It feels like the public is being left in the dark. Even though there have been 20 some meetings, and some people have come, it's because you have not communicated properly to public that more don't come. There should be notice more than the Times Picayune and the web site.
- Col. Starkel:** We'll improve that to make sure the public knows. We try to have IERs with specific meeting topics, but they need to be more specific. At meetings we know borrow is going to be an issue, we'll have people available to answer all questions. In terms of door to door, we'll go through and make sure neighborhoods know about impacts and we will look at buffer zones. We don't have Chris Accaro here, but we'll follow up.
- Rota:** Are the people giving public comments today, is that going to be recorded? Is there an additional opportunity for people to comment?
- Gib Owen:** If we get certain comments, we may do an addendum, then decision makers will decide if the addendum will be approved. That would go out for 30 days.
- Rota:** Will the environmental justice concerns go on the record?
- Owen:** Yes, but not for this IER.
9. **Jill Nach, Lake Pontchartrain Basin Foundation (LPBF):** I want to reiterate public involvement. I'm familiar with public processes but this information is difficult to find. Having to go to separate Web sites is unnecessary. You'd think you'd go to the Corps Web site and this information should be on that Web site.

Public Meeting Recap

Please rectify this. One issue is [inaudible] there is public concern there could be more flooding. There is also reference to vague alternative analyses, such as that borrow could be shipped in by rail. What kind of basis was this decision made on? Where did the criteria come from that we're looking at on maps? Another issue is that supposedly there would be a mitigation IER, when will that be?

Owen: We are moving forward with two IERs on mitigation. The first one should be done in 3 months, sort of like borrow process. We'll keep adding tools.

Nach: There was a lack of follow up with Task Force Guardian mitigation. Who is involved in the follow up? If this impacts habitat, we want to see how. We're farther from the process but it seems that this stuff is coming from different angles.

Col. Starkel: We need to make the nolaenvironmental.gov link bigger and brighter.

We're breaking backs to get the Hurricane Protection System done by 2011. [inaudible]

Nach: This process allows for change. How soon can or will the IERs be approved?

Col. Starkel: That depends on comments we get. It depends on how we turn them around. We have contracts waiting for signing. We want to resolve [issued raised by] comments as quickly as possible.

Nach: When can we expect IERs 22 and 23?

Brown: The IER 22 meeting is in April, so public notice will go out in March, IER 23 should go out for public notice around March too.

10. **Kelly Hager, wetland consultant and lawyer:** There's a bunch of procedural issues if you go to the borrow page [on the Corps website] it talks about contractor furnished borrow but there are two choices. It tells you to apply for a wetland permit but doesn't say anything about categorical denial. Five of my clients have wetland permits but have been told in writing that they can't give mud. If you're going to have that criteria, have a hyperlink to that information. We're not making distinctions between inside and outside levee. We're not talking about permitted levee. Try to figure out how people with land are approved, and others disapproved. You have substance issues. In a news release in Aug 2006, you say you might use wetlands for borrow [inaudible]. You're about 90 million short, there's a procedural issue. We're filing a Freedom of Information Act (FOIA) because of you not returning phone calls. [inaudible] If you get to the 404 permit process and you haven't tainted it, which would be exhibit 1, at least in 404 you would go to balancing act. You're in a posture now that says 'we're not going to issue a permit.'. Then you're billing *Lucas vs. South Carolina*, you're ready for a takings problem. You're creating some issues. You're trying to economize but takings isn't the way.
11. **Barry Kohl, Louisiana Audubon Council:** To follow-up, the federal register says an IER addendum will be completed. It should be noticed. Can Gib [Owen] comment on a follow-up addendum? This guideline shows there should be an addendum.

Owen: We [inaudible] but there is some discretionary authority [inaudible], otherwise we'd always have to accept comments. If all the comments aren't telling what we'd re-address, we will put together an addendum.

Kohl: Starkel mentioned 26 percent [inaudible] which hasn't been addressed in either IER. Please explain the other 76 percent. How will the public be involved in next steps? This is a moving target.

Col. Starkel: This is an ongoing process and we will continue to hold IER public meetings. We'll have people at those meetings to discuss all issues.

Col Lee: I'll take on the quantity question. The bottom line is there are 60 million cubic yards of placed material, that's what we're working off of. As we go project by project to design

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levees and floodwalls, there are also waste factors and those types of things. Until we have design and quantity requirements, we're talking about estimated quantity. Right now it's over 100 million cubic yards, which could go up or down. That'll change. We're doing rough estimates. As we get closer to award contracts, we can tell you how much borrow is actually needed.

- 12. Jeanne Lagarde, 1200 Bayou Rd, St. Bernard Parish:** I'm nervous because about 15 years ago they [dug] a borrow pit next to my house and they said there weren't any concerns. But ever since then, we've had safety concerns. I've had kids come in and out of the borrow pits. There [are] alligators since the borrow pit was dug. The pit has eroded. Now you're going to have one on 910 and 1025 Bayou Road? I'm going to be an island! We live in a historic district. We want to protect the levee instead of spending money to bring other dirt. I wish I was told before because there's going to be a big borrow pit around me. [inaudible] I can't tell you how many times kids go swimming and fishing or go into the pit riding 4-wheelers. I know we need higher levees. People aren't coming back; they sell and get out but what about others? I'm concerned. I want safety, but it looks like I'll have borrow pits all around, what about my property value?

Col. Bedey: As Col Lee mentioned, final decisions haven't been made. We have a partnership with the community as it relates to bus tours in St. Bernard. That addressed your concerns, relative to looking for out of the box solutions. We can't commit [to whether or not these sites will be used for borrow] because we don't know yet. We're talking about an unrestricted contract that says 'I don't care where it comes from' and gets delivered; we're looking to do what some are asking us to do. We know we only have 41 percent [of the borrow material needed]. We know we don't need to go to every location. We're going to let free market decide where to go. It matters what it costs, the dirt can come from India as long as it meets specifications and allows us to provide 100-yr protection. We can't decide all of this tonight, but we're heading there. We'll let free market tell us what's feasible.

Lagarde: But these addresses don't have contracts already?

Bedey: No, those are just approved sites.

- 13. Alberta Lewis:** I'm coming in at the back end of the meeting because I was busy dealing with the casino that may be built near my house. I'm at 721 Bayou Road. We own a plantation and want to know the policy when there's a national registered site. What's the good to build a 100-yr levee when we won't be there? The house we're in has been there since 1830 and there's a drainage issue. We couldn't raise the building to address historic [inaudible]. We were told just before Katrina that we have wetlands on the plantation. As a national registered site we wanted to create a preserve, but we're putting a lot of money into the plantation. We need to know about erosion.

Owen: We have professional archaeologists and if it's a historic site we work with state historic [officials] and tribes. If it's a verified site, we have a no work zone.

Lewis: It's not on the national register but it is part of the original property. We're what's left of the original plantation.

Owen: Our archaeologists are aware, they know about the area.

- 14. Catherine Serpas, 2012 Bayou Road, St. Bernard Parish.** It takes courage for people to speak. I tell you in every meeting that you, the Corps of Engineers, will not keep us safe in St. Bernard, the lower ninth ward or New Orleans east unless the Mississippi River Gulf Outlet (MRGO) is closed and filled in. We have a 76-mile borrow pit with MRGO as far as I'm concerned. We're being fooled to think we're being protected with levees. We need another means other than mud. You can come up with better ideas other than clay mud. I feel that St.

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Bernard has been damaged enough and we don't need another slap in the face with digging up high ground. What will we protect with levees, borrow pits? People are going to leave. Digging pits in St. Bernard is unacceptable, if it has to be dug, it must be filled. St. Bernard is unique with a rich history that need to preserve. Bayou Road is a scenic highway. What'll happen if they drive it and see a bunch of borrow pits?

I plead with you to have compassion for St. Bernard and lower St. Bernard parish and to consider a lot of other options than just clay mud.

Col. Starkel: Thank you.

Lee: Thank you. I'm aware of the MRGO, were doing a de-authorization study of MRGO and it's out for state review. Our recommend plan is to close MRGO. Those state and agency review comments will be done by Dec 14. Col Bedey talked about alternatives, we appreciate feedback to help us understand your community history and leadership from the parish. We had a levee summit with levee boards and have discussed backfilling requirements. We've heard those requirements and from levee leadership we're expanding this to get borrow material.

Serpas: The rock [dyke] by Bayou Loutre? That won't protect St. Bernard from the storm water. Katrina wasn't the perfect storm. That needs to be considered. When they said to close it [and put the rock dyke in], that's not going to help St. Bernard, lower 9th or New Orleans East.

Col. Bedey: Wetland restoration is a key to 100-year protection. We want to protect wetlands, we're working with the state to divert Mississippi River water and protect wetlands.

15. **Mark Davis, Director of the Institute on Water Resources Law and Policy at Tulane University:** A lot of this [information] would have been useful to hear earlier in the process. I was involved with getting alternatives for NEPA. This meeting wasn't scheduled. A meeting like this should be the way you open a comment period. It also lets people have 30 days so comments are more thought through and you aren't losing time. It's vital to explain that "borrow" is talking about mining. Generally speaking we're talking about something we won't get back. This is mining and should be understood that way. You're taking someone's land, this is a mining operation. These procedures can instigate legal issues. The best way is to ventilate the system up front. You don't want people coming in at the back end to get to substantive and cultural problems. Use this as test case. Let something constructive come out of it. This effort emigrated through redevelopment under the Road Home Program and the Louisiana Coastal Protection and Restoration Program (LACPR). People are coming back to the community and money is coming back in. That needs to be cross-referenced and those people don't know these maps. It may not make sense to use local sources. Right now cost will be higher than many will wish but we'll live with it. I urge you to go back and take note of what we've learned. Make each program like this at the beginning of the 30-day comment period.
- Starkel:** You have to consider future lifts too. We're considering balance of long term needs.
- Davis:** You've got Morganza and Donaldsonville too. You have to think about the future. [inaudible] about whether alternative levee design is being considered.
- Col. Starkel:** We are looking at alternative levee designs.
16. **Paul Lagarde, 1200 Bayou Road, St. Bernard Parish:** I make my living off my land and have had a citrus farm for 23 years. [inaudible] I know about the Army. I have an idea, because there is a levee behind my house I have a lot of clay because they dug a big pit next to me. I can tell you that that levee has sunk. They built a high levee from Verret to [inaudible] Except River Levee. You can find [inaudible] without reseeding. We're going to dig inside the system [inaudible]. As little kids we learned about the Dutch levee system. We're taking land and doing [inaudible] With the levee behind my house they dug a canal next to the levee and

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needed to drain the water? I went crawfishing last year on the northside and there must have been 7 feet of water. That whole levee has pushed across the canal. It amazed me, it's being pushed away. You can't keep soil from piling up. I was reading on the internet about floodwalls from [inaudible] to Florida, it slipped out if you put mud made of peat in the levees. I want to give you a copy of my plan. My idea is to build an I-wall to the Avenue Bridge, do a sheet piling [using cutter torch] and add a foot of concrete and veneer on it. I asked a guy from the Corps if they're going to burn it. You have a wall 12 ft by 3 ft. I watched them drive a sheet pile. When you put water on the inside of a canal and bump with a boat, you're going to [inaudible] iron can't hold a barge. This will flood again. I've been thinking about this, it is a levee with sheet pilings 32 feet high and that could be changed. You drive sheet pilings down preferably on an angle and get both sides in there then run with strong backs. If you put fill in a levee system it can't go anywhere, you have another 60 feet and you have to get down to clay [inaudible] or the same will happen as did with the Industrial Canal. The levee slipped and pilings went to the bottom of levee, about 12 feet it went down. It went another 4 feet and it stuck out. You can see where the whole levee slipped, this can't slip. I'll give you a copy of this [my plan]. We can solve this problem. Water can be diverted into the ground, it won't be pushed over. It's not going to collapse. It'll put pressure back into the earth. This will stand anything, a barge or anything else. [Lagarde showed big drawing]. There's only one way to keep water out of St. Bernard. This is the area we're trying to protect. We have levee going to Verret. Two to three days before a storm you have wind and it takes hours to get water. [inaudible] Water pushed against the shore lines. The Northern border is a ship channel and it runs along Lake Borgne to Breton Sound [inaudible]. It's about a half mile wide and you have a channel, I have that listed too. If you put two dredge boats in Lake Borgne we don't need to use river mud. Fill the channel and spiral the area with a channel. What is created is half mile of spiral area. You'll make a mile-wide barrier island. If you take it down past Hopedale or Breton Sound then the water will [inaudible] when that water hits and comes down it will pass through the New Orleans [inaudible] barrier and will take it out to Breton Sound. It won't let water from New Orleans get out. We're set up now to flood every time. [inaudible] (clapping)

Col. Starkel: Thank you.

Kohl: One handout shows that on the borrow site in Plaquemines 1, there's a stock pile and it's on a 404 cubic area which is being protected through perpetuity. Why is there borrow stockpile on there?

Owen: That was an error, we'll take it off.

17. **Louis Barrett, 2533 Bayou Road, St. Bernard:** In [other] IERs there are references to backfilling required. That's not mentioned in IER 19. Why would an IER make these references if local government requires backfilling?

Lebuer: The reason is that federal government rights here are supreme to any local organization. As long as we pay just compensation then they've been compensated accordingly. We're looking at backfilling pits.

Barrett: There seems to be a disconnect.

Starkel: If there's an engineering reason to fill a pit then we can.

Barrett: The concern would be to preserve the community, not a project.

Karen Durham-Aguilera: We need to look at litigation, this isn't all decided, including how we possibly backfill.

18. **Barbara Makoff (lives in St. Charles Parish but family owns property in Jefferson Parish):** In the 1930's they used borrow to build Hwy 90. My concern is borrowing mud from

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Lake Borgne, if they protect us in Lake Borgne it would protect every one. My family has lost a lot, I would hate to see more loss. I'd prefer doing something here and there instead of using money from the 100-year plan and protect everyone.

Col. Starkel: We're looking at this stuff. We have to do close end defense first then work out to a further perimeter line of defense but that has to happen in a perimeter path.

Makoff: The rock jetty would allow more water to come in. It'll never be high enough.

Durham-Aguilera: Thanks for comments. The rock dyke is just for MRGO. Congress already de-authorized MRGO and it's our job to figure out how. We're recommending a rock dyke. This spring we're doing contracts for surge barriers, it could be 3 or 4 gates but it protects St. Bernard, New Orleans East and Orleans parish. Under LACPR we'll blend the solutions. The question is what is the quickest way to reduce risk? This is all a balancing act. No decisions have been made. We may end up going for sources elsewhere and in the future may use St. Bernard. Looking at historic sites and plantations, this all has to be rolled up in to what to do. [inaudible] We'll take all this into account.

Unknown speaker: I've seen land being cleared on the contractor side but you're telling us decisions aren't being made?

Col. Lee: Karen [Durham-Aguilera] is responding to [gathering] borrow material. This process is in multiple stages. We've been taking borrow for many years. There's a process we go through, it's systematic and takes public comments into account. This meeting has been valuable. We've engaged leadership and levee board officials, state and federal agencies. We have received lots of comments in this meeting tonight and they will generate results. We are considering your views and comments as we go forward. That's why we're here tonight, thanks for spending your time here.

Col. Starkel: We have another meeting tomorrow from 7 to 9 at St. Maria Goretti in New Orleans East. The purpose is environmental justice, but we'll talk about any and all projects. We have a lot of people doing a lot of things but we'll make sure that you get a response. Thank you.

5. Summary

This addendum has been prepared to respond to comments received during the 30-day public comment period for draft IER #19. An updated version of draft IER #19 is available at the www.nolaenvironmental.gov website.

Upon completion of the 30-day public comment period for this addendum, the CEMVN District Commander will consider the information presented in draft IER #19; the IER #19 Addendum; and comments received during the 10 December 2007 public meeting and from the two 30-day comment periods and will make a decision on the proposed actions discussed in draft IER #19.