



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

JUL 06 2010

Operations Division
Western Evaluation Section

SUBJECT: (Emergency Permit) NOD-20
BASE FILE: MVN 2010-01136-WJJ

Ms. Kristi Cantu
State of Louisiana
Coastal Protection and Restoration Authority
Post Office Box 44027
Baton Rouge, Louisiana 70804-4027

Dear Ms. Cantu:

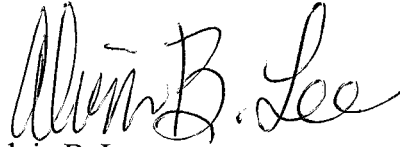
This responds to your letter dated May 18, 2010, requesting emergency authorization to dredge and fill to construct sand berms along the Isles Dernieres barrier island chain in Terrebonne Parish, Louisiana, to reduce oil inland penetration from the Deepwater Horizon Oil Spill.

During evaluation of your emergency permit request for the Chandeleur/Barataria sand berms (MVN 2010-1066-ETT), scientists and engineers of the New Orleans District, Mississippi Valley Division and Engineer Research and Development Center conducted a technical assessment of the performance of these structures in preventing oil penetration into the coastal estuaries of southeast Louisiana, including Terrebonne Basin. Based on findings from that assessment, and with input from state and federal resource agencies, I granted emergency authorization for six specific berm reaches (E-3, E-4, W-8, W-9, W-10 and W-11) predicated on a determination that the benefits from constructing those reaches outweighed potential adverse impacts.

My analysis of the subject permit request revealed that the lower Terrebonne Basin exhibits a relatively larger tidal prism, more energetic tidal action and increased tidal velocities, all of which limit effectiveness of the berms at reducing oil transport into the interior portions of the estuary. These findings were communicated to the resource agencies for consideration specific to the Isles Dernieres project on June 1, 2010, and you responded to their comments on June 11, 2010. After having carefully reviewed the information you provided in light of the findings from my technical project assessment, I did not conclude that anticipated benefits outweigh foreseeable detriments; therefore, I am required to deny your request for emergency authorization to construct the berms at Isles Dernieres. Should the State wish to pursue a standard permit, please submit an application form and applicable drawings to the Regulatory Branch for evaluation. You are encouraged to provide relevant support documentation, including monitoring data obtained from the currently authorized berms, that may assist us in the evaluation of your application.

If you have any questions, please contact Mr. Pete Serio, Chief, Regulatory Branch, at (504) 862-2255 or by e-mail: pete.j.serio@usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "Alvin B. Lee". The signature is written in a cursive style with a large, prominent "A" and "L".

Alvin B. Lee
Colonel, US Army
District Commander

CEMVN-OD-SW

Department of the Army Permit Evaluation
And Decision Document

Applicant: State of Louisiana, Coastal Protection and Restoration Authority

Application No: MVN-2010-1136-WJJ

Emergency Authorization Request under NOD-20 (Deepwater Horizon Oil Discharge)

This document constitutes the Environmental Assessment, Statement of Findings, review and compliance determination according to Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344), Section 10 of the Rivers and Harbors Act of 1899 (30 Stat. 1151; 33 U.S.C. 403), and their implementing regulations.

Application Chronology: The State of Louisiana, Coastal Protection and Restoration Authority, submitted an application requesting Department of the Army (DA) emergency authorization on May 18, 2010 to construct three berms which the applicant contended would provide protection to barrier islands and landward wetlands from contamination caused by the Deepwater Horizon oil spill. The US Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch coordinated and solicited comments for the applicant's request with state and federal agencies on May 18, 2010; CEMVN requested that all comments be submitted by close of business (COB) May 19, 2010. All comments received by agencies were subsequently forwarded to the applicant. On May 20, 2010, the applicant's rebuttal to agency comments was received and upon review, faxed to all the agencies for final comment on May 20, 2010; final comments were received by COB May 21, 2010. Project evaluation was held in pending status until the internal "Emergency Permit Draft Input to White Paper" was completed, received on June 1, 2010- which upon review, was forwarded to agencies for review and comment by COB June 3, 2010- which upon receipt, was immediately forwarded to applicant to review and comment. Applicant response was received after hours on June 11, 2010. After review of all pertinent information as developed in-house and from numerous state and federal resource and regulatory agencies, it was determined that based on the likelihood of less than effective results in the proposed project area and the lack of monitoring information from similar previously authorized projects that would benefit design criteria, that emergency authorization was not warranted at this time.

Purpose and Need for the Project: The purpose of the proposed berm is to act as a barrier to reduce oil penetration and impact to the coastal barrier islands and mainland coastal wetlands resulting from the Deepwater Horizon oil spill. The need for the project is to protect sensitive barrier islands and coastal wetlands from oil pollution.

Existing Conditions: Existing conditions in the project area are open waters adjacent to barrier islands and coastal wetlands. Some of the project area contains oil from the Deepwater Horizon Oil spill.

Proposed Project (Applicant's Preferred Alternative): The applicant proposes to perform restoration work on the Isles Dernieres barrier island chain for the purpose of enhancing the capability of the islands to reduce the inland movement of oil from the Deepwater Horizon Oil Spill. The work entails removal of sediment from Ship Shoal Blocks 88 & 89 and South Pelto Blocks 12 & 13 and depositing the dredged material (approximately 15 million cubic yards) in protective berms along the **Isles Dernieres Barrier Islands (for approximately 20 miles), as such:**

Berm Reach 1 – Raccoon Island (western segment of the Isles Denieres Barrier Islands);
 Berm Reach 2 – Whiskey Island (central segment of the Isles Denieres Barrier Islands);
 Berm Reach 3 – Trinity Island (eastern segment of the Isles Denieres Barrier Islands).

Alternatives considered:

No Action: Selection of the “No Action” alternative would result in the proposed sand barrier not being constructed and the avoidance of short- and long-term beneficial and adverse impacts associated with the project. It is reasonable that protective measures taken thus far, such as strategic boom placement, skimming and burning would continue. Although such operations have been affected by weather events, they continue to provide a measure of success with reducing oil penetration into the estuary. If these activities are increased, the level of success in containment would be expected to increase as well. Selection of the “No Action” alternative negates potential benefits provided by the berms in reducing oil contamination. However, considering the high energy marine environment and extensive area of the passes in the barrier island complex, the net effect that selection of this alternative would have on the comprehensive response strategy is expected to be minor.

Applicant's Preferred Alternative: Selection of this alternative would result in the establishment of approximately 20 miles of sand barrier berm at the three reach locations shown in the drawings. If the project functions as proposed, the berm would physically impede the movement of a limited amount of oil into the coastal marshes and onto the barrier islands themselves. Such benefit would be local in scope, considering the volume that has been discharged into the Gulf of Mexico and the area over which the oil has spread. Moreover, open areas and open passes between the constructed barriers would remain pathways for oil penetration to the mainland marshes. Traditional booming and skimming methods would have to be applied in these areas.

Selection of this alternative is not without potential adverse impact. Beyond the issues raised by the agencies and entities listed below, project assessment by the Corps identified that project implementation has the potential to alter coastal circulation patterns in such manner that oil introduction is accelerated, and beneficial flushing is reduced. The time required to build the

berms and actual longevity of the structures also raised concern. Therefore, a third alternative was evaluated by the Corps as described below.

Preceding Partial Project Authorization: Prior authorization has been granted dated May 27, 2010 entailing issuance of a permit authorizing reaches E3 and E4 to the east (Chandeleur/Breton Island areas), and W8, W9, W10, and W11 to the west (East Grand Terre Island to Sandy Point areas). These areas have been identified by Corps staff assessment as critical locations where greater immediate benefit is likely to be achieved with minimal adverse disruption of coastal circulation patterns. By observing performance of the constructed reaches, information can be obtained from site monitoring and used to formulate more effective strategies for application to the reaches not authorized, should the State maintain interest in addressing those specific areas.

Consultation with Concerned Federal and State Agencies/Entities: On May 18, 19, 20, 21, 2010, and June 1, 3, 7, 8, 10, 14, 2010, the Corps coordinated the proposed project with concerned agencies including: the Environmental Protection Agency (EPA), US Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), the LA Department of Environmental Quality, LA Department of Wildlife and Fisheries, LA Department of Natural Resources, and the Office of Coastal Protection and Restoration (applicant).

In addition the Corps has separately coordinated with the Chitimacha Tribe of Louisiana, State of Louisiana, Office Cultural Development and Division of Archaeology (SHPO).

Endangered Species Act (ESA): On May 18, 2010, May 19, 2010, and June 1, 2010, the Corps coordinated the proposed project with the FWS and the NMFS for consultation on federally listed threatened and endangered species. The FWS and the NMFS, by emails dated May 19, 2010, May 21, 2010, and June 2, 2010 provided the Corps with comments & recommendations for ESA issues anticipated to be encountered during construction of the berm. Federally listed species that may be encountered during dredging and construction activities include the West Indian Manatee (*Trichechus manatus*), Piping Plover (*Charadrius melodus*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Leatherback Sea Turtle (*Dermochelys coriacea*), and the Gulf Sturgeon (*Acipenser oxyrinchus desotoi*).

Magnuson-Stevens Act [Essential Fish Habitat (EFH)]: On May 18, 2010, May 19, 2010 and June 1, 2010, the Corps coordinated the proposed project with NMFS for consultation on EFH relative to this proposal. The NMFS, by emails dated May 19, 2010, May 21, 2010 and June 2, 2010, provided the Corps with comments and recommendations for EFH issues anticipated to be encountered during construction of the berm.

Marine Mammal Protection Act (MMPA): On May 18, 2010, May 19, 2010, and June 1, 2010 the Corps coordinated the proposed project with the FWS and the NMFS regarding potential impacts to marine mammals within the project area waters. The FWS and the NMFS by emails dated May 19, 2010, May 21, 2010, and June 1, 2010 provided the Corps with comments and recommendations relative to anticipated issues to be encountered during construction of the berm. FWS and NMFS recommendations have been incorporated into the permit instrument as Special Conditions, and are to be adhered to by the applicant during all phases of the proposed

project. Further coordination for MMPA issues are pending the review of an ATF permit application to be submitted by the applicant within 30 days from the date of this authorization.

Section 106 National Historic Preservation Act: By fax dated May 18, 2010, the Corps coordinated the proposed project with State of Louisiana, Office Cultural Development, Division of Archaeology. No comments of concern were received from SHPO.

Tribal Consultation: By email dated May 20, 2010 the Corps coordinated the proposed project with the Chitimacha Tribe of Louisiana, Cultural Director, Kim Walden. No comments of concern were received from Chitimacha Tribe of Louisiana.

Section 401 Water Quality Certification (WQC): The State of Louisiana, Department of Environmental Quality (DEQ) has issued a WQC for the NOD-20 emergency permit during previous consultations. Further consultation for WQC issues with the DEQ will commence during review of the ATF application, required to be submitted by the applicant within 30 days from the date of this authorization. Also, by email dated May 19, 2010, LA DEQ “has no objection to this project”.

Coastal Zone Management Act (CZM): The State of Louisiana, Office of Coastal Management (OCM), is processing an emergency authorization (#EUA10-040) for the proposed project. Further consultation for CZM issues with the OCM will commence during review of the ATF application, required to be submitted by the applicant to OCM, within 30 days from the date of this authorization.

Environmental Impacts of the Proposed Project: A detailed assessment of environmental impacts that would result from the proposed project has not been conducted at this time due to expedited procedures enacted under emergency provisions outlined in 33 CFR 325.2 (e) (4). Below is an abbreviated list of agency comments and objections to the proposed emergency authorization:

Agency Comments/Objections:

1. EPA Comments: Dated June 2, 2010:

EPA is concerned that the New Orleans District continues to consider this proposal for emergency authorization, in light of the fact that a permit was issued on May 27, 2010, to the State of Louisiana for construction of six berms in the Chandeleur Islands and Barataria Bay (two berms in the Chandeleur Islands and four berms in area just west of the Mississippi River in the Barataria Bay basin). The premise of that permit was that the berms were to serve as a pilot to determine the effectiveness of this approach in reducing the movement of oil. Upon evaluation of the pilot berms’ oil containment effectiveness it would then be decided if future projects would be warranted. This information is necessary for an evaluation of the effectiveness of this berm technology and design. Until this information is obtained, EPA’s recommendation that any future berm permit decision (including this proposal) should either be held in abeyance or the Corps could, pursuant to

40 CFR 230.12 of the CWA Section 404(b)(1) Guidelines, deny the permit proposals without prejudice because of insufficient information to conduct the Guidelines evaluation.

- **Effectiveness at stopping oil:** In the proposal, the primary focus is on placing material adjacent to existing barrier islands and not to fill in deep water passes or in open water reaches. Currently proposing to leave these openings is a promising approach to minimize potential estuarine sediment transport, salinity, and hydrologic impacts. However, placing sand berms only in front of existing islands, while leaving numerous and significant tidal passes open, raises questions of the proposal's ability to arrest movement of oil into estuarine waters and marshes. It is expected that the majority of oil will migrate through the "big passes." Although the more limited sand berm may arrest some oil migration, it is unlikely to stop the majority of the oil from migrating inland. This concern appears to be supported by a recent Corps' document, "White Paper Emergency Permit Evaluation, Technical Analysis, U.S. Army Corps of Engineers" dated May 24, 2010. This Corps' document presented information from a high-resolution detailed hydrodynamic model. This model, a regional ADCIRC model for the entire Louisiana/Mississippi coast indicated that a relatively larger tidal prism, more energetic tidal action, and increased tidal velocities occur within Terrebonne Bay. The White Paper also indicated that this area had evidence of relatively higher flood-tide water particle excursions which would tend to transport the oil spill deeper into the bay. In light of this larger tidal action and lack of freshwater delivery to this system, this wetland basin will be most susceptible to contamination by the oil spill. The larger and more energetic passes will dictate movement of the oil spill into this basin. To be effective, the fight to keep the oil out of wetlands will probably have to be waged at the position of the wetlands themselves, not at the barriers and entry passes into the bay, a difficult proposition because of the many more miles of complex wetland shoreline inside the bay versus the length of coastline and limited number of passes at the outer perimeter. The Corps' White Paper also stated that analysis results concluded that the proposed protective sand berms alone would not be an effective means for keeping oil out of the wetland areas.

Furthermore, EPA has concerns that once berm construction is underway, the constructed berms themselves, dredging activity, barge and other boat equipment traffic, and floating pipe for sediment transport could exacerbate the emergency situation in the Gulf. This could stem from either trapping oil that has already made its way into interior waters behind the berms, exacerbating movement of oil in the Gulf water column, re-suspending bottom sediments that have adsorbed oil and dispersants, impeding movement of other emergency boat traffic/equipment, or impeding deployment of other emergency actions.

- **Construction timing:** We are concerned about the element of time. Can the proposed project realistically be constructed in time to have a measurable effect on controlling

movement of oil into interior estuarine waters and wetlands? However, the threat to Louisiana's coastal marshes is already present. Given the urgency of the situation, we must focus first on actions that have the greatest possibility of preventing further ecological and economic harm. We recommend placing increased focus on deployment of state-of-the-science boom technology in tidal passes, in front of existing barrier shorelines and coastal wetlands. Such technology is highly mobile, rapidly deployable, can be implemented in multiple layers, and would intercept oil without long-term environmental consequences risked by construction of the proposed sand berm structures. We strongly encourage utilization of such approaches given our concerns about continued migration of oil inland through the passes.

- **Protect valued sediments for future coastal restoration:** EPA is concerned about the potential use of sediments that are already authorized for restoration projects. The use of the proposed Ship Shoal borrow site should be minimized, as that shoal has been identified as a borrow site for future coastal restoration projects (LCA and CWPPRA). EPA does not object to the use of the non-restoration project identified borrow areas of Ship Shoal. The applicant should contact the Minerals Management Service for permission to use Ship Shoal as a borrow area.
- **Ensure safe dredged sediments:** The information provided in this proposal does not include information to analyze or test the borrow area. There is no information that would indicate that the applicant would be required to identify and avoid all submerged structures, objects and pipelines in the pilot project, nor is there specific provision for testing borrow areas for potentially contaminated sediments prior to dredging. Identification of appropriate constituents to testing for in sediments, detection levels, the potential need for organism toxicity testing, and design/layout of sampling scheme are all important components of testing these sediments for potential contamination. However, none of this needed information has been discussed or shared with EPA or the other Federal agencies. EPA, as well as our other Federal partners, need to be engaged in the planning, design, implementation and review of results from this crucial additional testing. We also recognize the challenge of collecting, analyzing, and informing project dredging decisions with this yet-to-be collected data, in a manner that can address the immediate need of arresting shoreward-moving oil.
- **Planning to address contaminated berm sediments:** EPA is concerned that the proposal gives no consideration to either short or longer-term planning, responsibility or costs for removal/remediation of berm sediments that become contaminated from intercepting waterborne oil. Designing and constructing a structure to arrest contaminants without discussing and deciding how contaminated materials will be

properly managed and removed from the environment is of great concern in this highly dynamic and vulnerable coastal environment. Safe and rapid removal of contaminated sediments would be critical for ensuring a hurricane or tropical storm does not subsequently disperse these materials into bays and wetlands. It is also critical to ensure that potential upland disposal of sediments that have been contaminated with oil does not create Environmental Justice or other environmental problems by potentially harming the coastal communities we seek to protect.

In addition, there is significant potential that sediments used for berm construction may become contaminated even during project construction due to the extended period of time over which these berms will be built. These sediments would have to be removed or remediated concurrent with construction. If not, these contaminated sediments will be re-introduced to the aquatic environment as the berm erodes naturally. EPA and our other Federal emergency response framework partners would need to participate in developing and implementing appropriate contaminated sediment identification, remediation, removal, and/or containment plans.

2. NMFS Comments: Dated June 2, 2010:

- Depletion of finite Louisiana sand resources could affect future high priority restoration projects, largely negating the planning efforts of the past two decades.
- Understanding the critical nature of the current situation, phased authorization and implementation of the proposed action may be appropriate. This approach would allow immediate action in areas under imminent threat of oiling. Also, phased implementation could provide time to conduct analyses to assess and thereby avoid and minimize potential geomorphologic impacts and evaluate berm stability issues in a time frame to guide implementation of subsequent segments of the proposed project.
- Direct and indirect impacts to shoreline habitats, consequences of sediment transport and effects of changes in wave climate have not been determined and could be substantial. Modeling of at least a preliminary scope should be conducted prior to initiating removal of material from approved borrow sites.
- The proposed project could result in adverse impacts to essential fish habitat, commercially and recreationally important fisheries, and endangered and threatened species. The proposal lacks sufficient detail to assess or quantify potential impacts. As the permitting process proceeds and if the action is approved, NOAA reserves the right to provide additional recommendations and terms and conditions based on its statutory and regulatory authorities.

3. FWS Comments: Dated May 19, 2010:

- The berm should be constructed strategically to intercept oil where it is coming ashore first.
- Tidal inlets should not be blocked by the berm. Temporary booms should span tidal inlets to intercept oil.
- To minimize disturbance to colonies containing nesting gulls, terns, and/or black skimmers, the Service typically recommends that all activity occurring within 650 feet of a colonial nest site be restricted to the non-nesting period (i.e., September 16 through April 1). For colonies containing nesting brown pelicans, the Service typically recommends that all activity occurring within 2,000 feet of the nesting colony be restricted to the non-nesting period (i.e., September 15 through March 31). The Service should be notified when colonial bird nest sites are identified, and no activity should occur on the islands within the recommended buffer zones during the nesting season. An observer should monitor each colonial nest site to determine the minimum distance at which construction can occur without disturbing nesting birds. If the recommended buffer restrictions are not feasible for seaward berm construction purposes, the Service should be contacted to assist in the determinations of the maximum distance practicable. If feasible, the alternative of gapping and boom deployment should be investigated in these areas. That distance could be utilized as the construction zone buffer for that nesting area and a boom(s) could be placed in lieu of the berm within that buffer distance until nesting season is complete at which time the berm can be completed. The Louisiana Department of Wildlife and Fisheries' Fur and Refuge Division (Tom Hess: [REDACTED]) may be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies.

The proposed project has been analyzed for conformity applicability pursuant to regulations implementing Section 176 (c) of the Clean Air Act. It has been determined that the activities proposed under this project will not exceed *de minimis* levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required.

Evaluation:

Having reviewed the information in the permit file; I have determined that it would be contrary to the overall public interest to grant a permit under the emergency guidelines of the NOD-20 and 33 CFR 325.2 (e) (4). After reviewing the stated views of the interested agencies and organizations and considered the possible direct and secondary consequences of the proposed work, I cannot conclude that anticipated benefits outweigh foreseeable detriments as required in my public interest determination; therefore, I am required to deny the request for emergency authorization to construct the proposed berms on the Isles Dernieres barrier island chain (with work entailing removal of sediment from Ship Shoal Blocks 88 & 89 and South Pelto Blocks 12 & 13 and deposition of approximately 15 million cubic yards of dredged material for approximately 20 miles of created protective berms along the Isles Dernieres Barrier Islands of Raccoon Island, Whiskey Island and Trinity Island).

As shown in the file, there is nearly a consensus that the proposed work would be of very limited effectiveness in preventing inland oil migration. Placing sand berms in front of existing islands, while leaving numerous and significant tidal passes open, does not give credence to the proposal's ability to arrest movement of oil into estuarine waters and marshes. The project is not without detrimental effects, including local changes in water movement patterns that may cause erosion, effects on essential fish habitat and reduced availabilities of quality sand sources for coastal restoration projects.

I find that issuance of a Department of the Army permit, as prescribed by regulations published in 33 CFR 320 to 330 and 40 CFR 230, is contrary to the overall public interest.

July 6, 2010

Date

Bobby Quebedeaux

Preparer

6 July 2010

Date

Pete Scio

Reviewer

6 July 2010

Date

Allen B. Lee

Approving Officer

White Paper Emergency Permit Evaluation, Technical Analysis
U.S. Army Corps of Engineers
May 24, 2010

**Protection berms on west side of Mississippi River, W8, W9, W10 and W11:
Hydrodynamic Assessment**

A rapid regional assessment was made of the potential for the oil spill to move into the Louisiana Wetlands west of the Mississippi River using two high-resolution detailed hydrodynamic models, a regional ADCIRC model for the entire Louisiana/Mississippi coast and an AdH model for the Mississippi River delta region. The models were applied to simulate regional-scale water movement under the action of wind, tides and river discharges in the various passes leading to wetlands.

ADCIRC model results suggest that freshwater delivery via the Atchafalaya River will help retard movement of a spill into the wetlands around Atchafalaya Bay and some areas to the west of the bay, for the present high discharge rates. These beneficial effects will be a function of the quantity of fresh water being delivered to the region by the Atchafalaya River and the momentum associated with the freshwater which can help retard spill movement into the bay and adjacent wetlands.

ADCIRC results indicate a relatively larger tidal prism, more energetic tidal action, and increased tidal velocities within Terrebonne Bay, with evidence of relatively higher flood-tide water particle excursions which would tend to transport the spill deeper into the bay. In light of this larger tidal action and lack of freshwater delivery to this system, this wetland basin will be most susceptible to contamination by the spill. The larger and more energetic passes will dictate movement of the spill into this basin. To be effective, the fight to keep the spill out of wetlands will probably have to be waged at the position of the wetlands themselves, not at the barriers and entry passes into the bay, a difficult proposition because of the many more miles of complex wetland shoreline inside the bay versus the length of coastline and limited number of passes at the outer perimeter. Analysis results concluded that the proposed protective sand berms alone would not be an effective means for keeping oil out of the wetland areas. Additionally, although the smaller diversions, such as Davis Pond, have not been demonstrated to have the ability to change the overall movement of water in the outer estuaries, there is some indication that the freshwater movement may affect the movement of water at the wetland boundary in areas such as Barataria Bay and Breton Sound. There is no such option in the Terrebonne Basin.

In contrast, Barataria Bay is shallower than Terrebonne Bay, with less tidal prism, less energetic tidal action, and much smaller passes leading into the wetlands. The tidal inlets in the Barataria Bay area located in the western portion govern the overall tidal regime of the bay area. In the area immediately to the north of the proposed protection berms at W8-W11, the degradation of the existing barrier islands has altered the tidal regime. Overall, tidal action in Barataria Bay is small.

A source of fresh water inflow into the Barataria Bay area is Davis Pond freshwater diversion structure. The Davis Pond structure is operated to improve the environment within the lower Barataria Basin through the diversion of river water into oyster producing areas in the Barataria Estuary. The flow through this structure is determined based on the Mississippi River stage, the stage in Lake Cataouatche, and salinities in the Barataria Basin. Monthly target salinities have been developed to aid in meeting project salinity goals. Operational limitations for this structure also include a differential head limit of 5.4 ft and a downstream stage of 2.5 ft NGVD in Lake Cataouatche.

The AdH model results indicate that, because the tidal action is small, freshwater release at Davis Pond, at the design capacity, can reduce penetration of flood tide water excursions into the Bay through some of the passes. Current freshwater release at Davis Pond is in the 7,500 cfs range, and salinities are within the monthly operational targets. At this time, the ongoing HSDRRS construction work is limiting the release of additional flow through Davis Pond. As summer progresses, the monthly target salinities increase, which may trigger a conflict of the need to maintain salinities in the project area and the need for water volume in the basin to reduce penetration of oil spill.

In light of regional net westward movement of water that is expected during the coming months along the inner continental shelf and coastal region, and being in the lee of the Mississippi River delta, the barrier island fronting Barataria Bay is expected to be heavily impacted by accumulating oil.

Of these bay systems, Barataria it is closest to the source of the spill, and is where action is needed to prevent the spill from entering the basin, and the only one where conditions are favorable for taking action at the shoreline and in the passes to prevent spill movement into the wetlands, as opposed to action at the site of many more miles of interior wetlands. The barrier islands along the western side of Barataria Bay are reasonably intact, separated by a finite number of small well formed passes with limited flood tide water excursions into the bay. The condition of these barrier islands is relatively good. However, the barrier islands on the eastern side of the bay are severely degraded, very low in elevation, and non existent in many places. This region is highly vulnerable to spill penetration into the wetlands, especially under spring tide/wave conditions as well as wind events that produce elevated water levels and wave conditions. Population is located not too far inland from these degraded barriers. Under the present situation, it's relatively easy to envision spill encroachment adjacent to the population. As summer progresses, winds from the SW become more prevalent, as will wave energy from these directions, increasing the vulnerability of this area to spill penetration. Berm construction would significantly reduce the number of pathways by which oil can enter the wetlands on the east side, and reduce the number and size of water pathways that lead to the wetlands. Construction of protective sand berms could provide a benefit if combined with an effective means for minimizing oil traverse through the passes. Effectiveness would be highly dependent on the success of those efforts. If oil were to penetrate north of the islands the north side of the islands would become susceptible to contamination.

Once the immediate concerns about the oil spill have been addressed, there are a couple of longer term reasons why the placement of material in the eastern side of the Barataria may be considered beneficial. Materials in the Barataria Basin barrier islands tend to move from east to west. The placement of sand in the eastern side of the Barataria Basin is likely to have only short term impacts on the overall circulation of the system, as the sand placed in this project is likely to be redistributed to the west to the other parts of the Barataria barrier island system, thus providing useful nourishment to the system. Additionally, wetlands to the north east of the Barataria barrier islands have been considered critical to overall coastal restoration and for the protection of Plaquemines Parish and have been targeted for restoration by numerous projects such as the Myrtle Grove Diversion. It would be useful to protect these wetlands, to the extent possible, from the oil spill and to facilitate the clean up of the oil in the area.

Protection berms on east side of Mississippi River, E3 and E4: Hydrodynamic Assessment

A rapid regional assessment was made of the potential for the oil spill to move into the Louisiana wetlands east of the Mississippi River, using two high-resolution detailed hydrodynamic models, a regional ADCIRC model for the entire Louisiana/Mississippi coast and an AdH model for the Mississippi River delta region. The models were applied to simulate regional-scale water movement under the action of wind, tides and river discharges in the various passes leading to wetlands.

Month-long circulation pattern for the one tide and wind and discharge scenario that was examined (characterized by frequent strong and persistent SE, SSE, and S wind events) indicates a pattern that is conducive to flushing of oil from the Breton and Chandeleur Sounds, back out beyond the barrier islands and into deeper water along the shallower shelf region adjacent to Chandeleur Island. As long as the spill is positioned to the southeast of the Breton and Chandeleur Sounds, these are the wind conditions most likely to rapidly move the spill toward those sounds. Circulation patterns will be sensitive to the wind conditions and less sensitive to Mississippi River discharge

If the presence of oil persists at the entrance to lower Breton Sound, water particle trajectory results suggest potential for complete recirculation of the spill from its entry point just seaward of lower Breton Sound, northward movement within the Breton and Chandeleur Sounds, exit between Ship Island and Chandeleur Island out beyond the barriers islands then back to near the original point of entry.

This circulation pattern appears to provide a beneficial effect for Lake Borgne and western Mississippi Sound, by retarding potential spill movement into these areas. This pattern appears to provide a beneficial effect for Caernarvon wetlands, and to a lesser degree the Biloxi Marsh wetlands.

A strong and persistent wind event from the east while the spill is in Breton and/or Chandeleur Sound could threaten the Caernarvon and Biloxi marshes, although wind statistics indicate a decreasing potential for easterly winds, and increasing frequency of southerly winds as the summer season progresses.

The protection berms in front of the islands, specifically E4 and E3, can provide a means to reduce the amount of oil reaching the east side of the Chandeleur Island, providing protection to the island and some of the smaller passes. These berms, if sustained, are likely to create a more sheltered regime on the western side of the Chandeleur Island to better allow for the skimming of oil, should that be part of the response plan.

Tidal circulation in Breton and Chandeleur Sounds is primarily controlled by the sediment platform or land mass upon which various islands and island remnants are located that make up the Chandeleur barrier island chain, and by the larger tidal passes that lead into the sounds. The

largest passes that control tidal circulation into the sounds are the pass between the northern end of Chandeleur Island and Ship Island to the north, and the three larger tidal passes located north of the Birdsfoot delta, including the deepest pass immediately adjacent to the Birdsfoot, and Grand Gosier and Breton Island Passes. Construction of the proposed berm in reaches E3 and E4 will result in a very small volume of sand being added on top of the barrier island platform that already exists, a negligible change to the more voluminous barrier island platform. Construction of a berm in reaches E3 and E4 will not involved closure of any of the largest tidal passes, including those mentioned above. Therefore, we expect any changes to tidal circulation in the region, if there are any, to be quite small.

A short spur at the southern end of E1 connected to the Birdsfoot delta might help to alter the tidal flow entering the area possibly enhancing existing circulation patterns in a way that limits movement of oil along the fringing wetlands to the west and northwest of the east side of the delta. This feature is not included in the permit application.

If clean up activities included a strategy for concentrated attack in the passes and just inside the passes rather than all across the islands, the protective sand berms could provide benefit. By constructing E4, and especially E3 that extends the subaerial part of the island to the south, and in light of the arc shape of the Chandeleur Island, a larger region of the Chandeleur Sound will be sheltered from gulf wave energy from multiple directions which means it will only really be subjected to locally generated waves which will become smaller as summer comes. This should make for calmer conditions near Biloxi Marsh and immediately to the west of segments E3 and E4, for cleanup. If they can skim oil in the sound, that would be desirable to cleaning at the wetland fringe. Our model results suggest oil entering lower Breton Sound will move to the north and north-northeast into this sheltered zone right behind the restored Chandeleur Island segments, under southerly wind conditions, making much calmer regime in which to skim oil.

Placing sand from outside the system is a positive effect but recognize it may move elsewhere through the system over time. Typical tidal movements and wave action will move placed material and tropical events could devastate placed material and significantly move the oil spill should they occur. The USGS has suggested that it would be best to begin the placement of dredged material in the vicinity of Monkey Bayou, allowing the new material to follow the current transport pattern to the north where it can still provide benefit, rather than starting at the northern end of the Chandeleur Island and allowing material to leave the system to the north.

Use of Pass a Loutre as a sand source. Dredging Pass a Loutre could possibly result in penetration of oil further into the bird's foot area, by altering flow distributions for West Bay, South Pass and Southwest Pass. Those alterations may diminish the effect of Mississippi River flows in retarding oil penetration into the marshes located along the periphery of the Mississippi River passes and west of the Mississippi River. It would be better to bring sand in rather than dredge Pass a Loutre. An alternative source located in the vicinity of the Pilottown Anchorage area could be considered as a borrow source with minimal impacts to flow distribution based upon our engineering experience and judgment.

A sketch depicting permissible dredging locations is attached as Appendix A.

Construction and sustainability issues for protection berms

- Barrier island improvements seem beneficial, provided oil has not reached the beach prior to construction and provided oil free borrow is placed within the protective berm.
- Dredging quantities and stability of the 25 to 1 unconfined section are very questionable. Given the characteristics of the borrow material, there is clear consensus the 25 to 1 structure will not be stable, resulting in a significant quantity increase. Cost and duration to complete will also be directly impacted. Additionally, a critical cost factor is the unknown borrow quantity to obtain the in-place yardage (i.e., the borrow to fill ratio) in such an unconfined location.
- Weather is also a major cost factor as smaller dredges must have supportive tugs to maneuver to safe harbor during rough seas.
- The footprint of the protection berm is likely to be larger.
- It will be difficult to sustain the protection berms at elevation +6, given the characteristics of the material. Erosion, loss of elevation, and multiple breaches will likely be occurring for the placement volumes that have been proposed, even during the construction process.
- Sustainability will be an issue once the protection berm is oiled Prompt removal of the oil is vital if maintenance activities are planned to maintain the berm shape during its intended life span, given the erodibility of the material. Therefore, constant monitoring is needed.
- Construction activities will encounter oil, and methods are needed to successfully deal with the situation. Obvious considerations are monitoring for presence of oil in the borrow area, maintaining safe and efficient vessel operations, means to obtain clean borrow or utilize alternate sources, and depositing borrow in areas that have not been contaminated or have been cleaned up.
- As a Benchmark for construction/cost comparison, the April 2009 Grand Isle Hurricane Protection Project – Beach and Sand Dune Construction- is noted. Using the beach as a northern boundary, the costs to construct the sand dune (berm) using one dredge operation ranged among 4 bidders from \$ 26 to \$42/cy with an approximate borrow to fill ratio of 2 to 1, low since this work utilized the beach as a boundary for construction whereas the current barrier island work is open water.

Pre-construction data collection is recommended

- Strongly recommend that a magnetometer survey be conducted prior to any dredging activities throughout the proposed borrow and placement sites to locate any unknown pipelines.
- Investigation and grain size analysis of material at the borrow site as it is used. Sampling of borrow today might not be indicative of conditions when dredging begins.
- Oil conditions may be realized during the construction phase. Ensure borrow material is clean and free of oil.
- Recommend baseline continuous data collection for tides and salinity in the wetlands behind berm segments W8-W11, and in Chandeleur Sound behind berm segments E3-E4, Lake Borgne and Saint Louis Bay. Recommend baseline current/water exchange transects

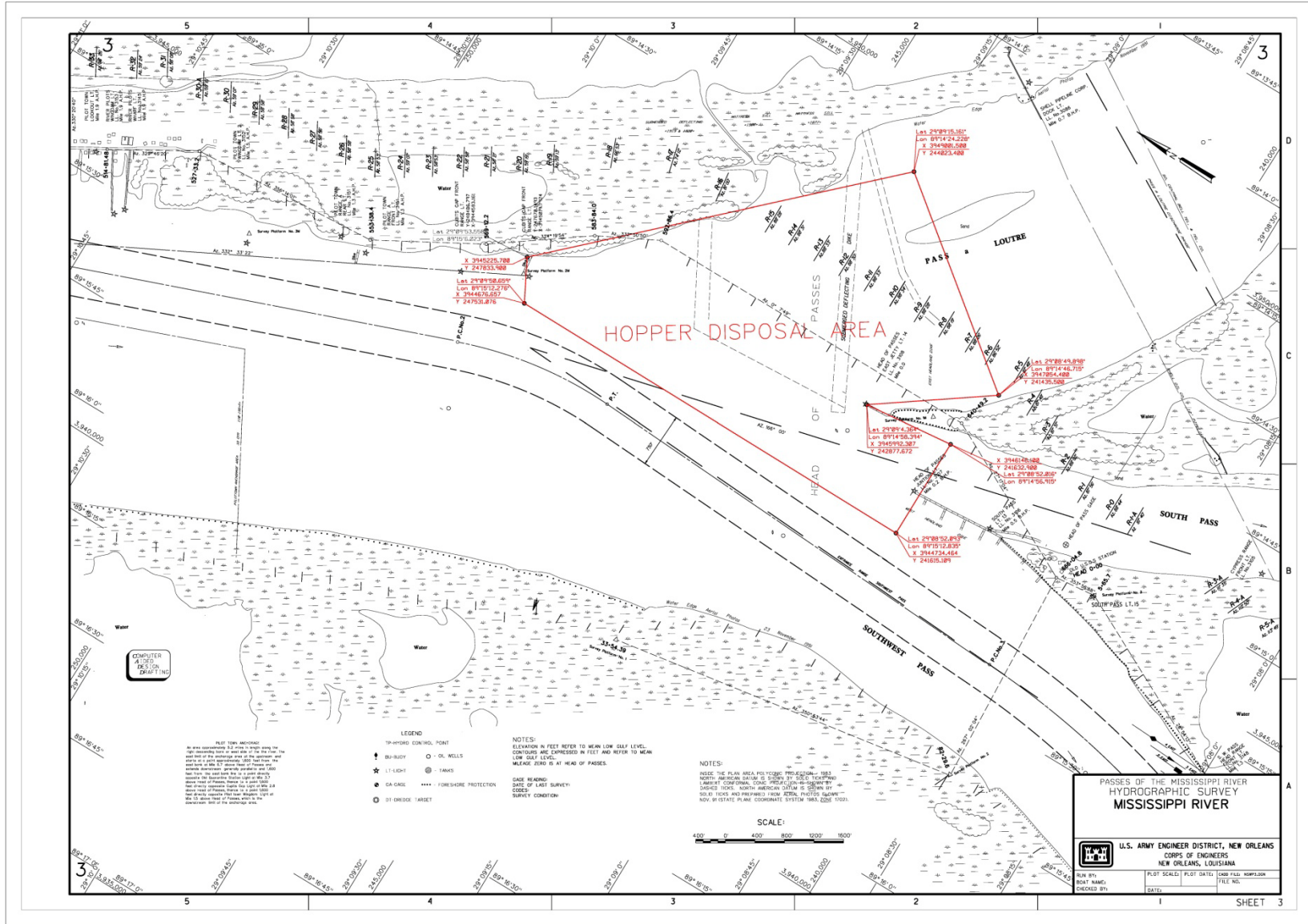
acquired at spring tide conditions in the passes between Ship island and Chandeleur Island, passes leading to western Mississippi Sound, and passes leading to Lake Borgne and into Biloxi Marsh region, and transects between the existing Chandeleur barrier island platform and Biloxi and Caernarvon Marsh, to assess any regional changes in tide propagation, circulation and water exchange, and salinity associated with construction of the berms.

- Recommend baseline bathymetric survey measurements to define morphology of the passes adjacent to proposed berm segments and spring tide cross-sectional discharge/water exchange measurements in the adjacent passes.

Monitoring will be a critical feature to be implemented

- Monitoring will reduce the uncertainty of the actions and allow for changes as the project is constructed.
- Monitoring will provide baseline and with project information to better assess environmental effects.
- Long term effects for the constructed berms are largely unknown but are of concern. Monitoring will help to address the unknown long term effects of the berm construction.
- Monitor the protection berms and borrow sites for the presence of oil. Frequency of monitoring should be such that prompt action to remove the oil is taken.
- Monitor circulation patterns on the western side of the Chandeleur Island and protection berm. This monitoring will provide information on where to deploy booms as well as document changed circulation patterns.
- Conduct same monitoring, as defined in pre-construction data collection to establish the baseline condition, at same spring tide conditions, 1, 3, 6 and 12 months following berm construction to assess changes in the regional circulation, tides, salinity, and bathymetric change in adjacent passes. Then decide whether or not to extend the monitoring further into the future.
- If significant circulation changes are noted, there may be a need to initiate monitoring for dissolved oxygen changes in the estuaries behind the barrier islands. Stagnation, due to changes in circulation, could result in the creation of hypoxic zones.

Appendix A



Quebedeaux, Bobby D MVN

From: Miles Croom [Miles.Croom@noaa.gov]
Sent: Wednesday, June 02, 2010 4:15 PM
To: Lee, Alvin B SAM; Quebedeaux, Bobby D MVN
Cc: 'sally.yozell@noaa.gov'; Jainey Bavishi; Buck Sutter; Rusty Swafford; Richard Hartman; Rachel Sweeney; David Bernhart; Robert Hoffman; Eric Hawk; Heather Blough; Pat Montanio; Brian T Pawlak; Chris Doley; Margaret Davidson; Todd Davison; Doug Helton; Robert Haddad; Ralph Lopez; John Rapp; Mark Thompson
Subject: NOAA comments on Isles Dernieres
Attachments: NOAA comments on Isles Dernieres 6-2-10.docx; miles_croom.vcf



NOAA comments on miles_croom.vcf
Isles Dernier... (368 B)

Colonel Lee:

NOAA provides general comments on the re-submittal of the original proposal by the state of Louisiana dated May 18, 2010, to construct sand berms on the Isles Dernieres segment of Louisiana's barrier islands from Raccoon Island to Trinity Island.

While recognizing the urgency of the potential threat posed by the oil spill, NOAA is concerned that the project as proposed faces significant environmental, economic, and engineering challenges. Of particular concern is the necessity to resolve the Natural Resource Damage Assessment issue of whether this action will qualify as an emergency restoration action, and the resulting position of the responsible party. If the proposal is not approved for funding by either the responsible party or from the Oil Spill Liability Trust Fund, the applicant should be required to demonstrate a financial commitment to complete the work, if approved by the Army Corps of Engineers, New Orleans District (District). Such commitment should incorporate not only costs for constructing the berms but also provide for monitoring of effects, planning of mitigation measures, and completion of post-construction activities required by the permit.

Because NOAA has not yet seen the permit terms and conditions, our remaining comments are made in anticipation of its issuance and focus on anticipated and potential adverse impacts to NOAA trust resources. When specific permit language is made available, NOAA will if necessary clarify and elaborate on the comments attached here. The attached comments are provided pursuant to authorities of the Fish and Wildlife Coordination Act, the essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act. At such time as NOAA is able to review the emergency permit and its provisions and special conditions, NOAA reserves the option to provide additional recommendations. NOAA also looks forward to working with the District when it issues the Individual Permit for this action and conducts the analyses required by the National Environmental Policy Act (NEPA). In addition, if the District issues a permit for this barrier islands berm project and the proffered permit is executed, NOAA recommends the NEPA analysis for the two projects be combined, for the purpose of facilitating the analysis of cumulative impacts.

If the project is permitted by the District, NOAA requests to be included in efforts to design and implement monitoring and adaptive management measures to evaluate the effectiveness of the project in minimizing the impacts of the oil spill and to establish a baseline for use in developing future projects to provide long-term

ecosystem benefits. Thank you for the opportunity to review and provide these comments.

Miles Croom

National Oceanic and Atmospheric Administration

Comments on
Emergency Authorization Request
Isles Dernieres Barrier Island Defense

June 2, 2010

By e-mail dated June 1, 2010, the U.S. Army Corps of Engineers, New Orleans District (NOD) requested agency review of the application by the state of Louisiana for emergency authorization to construct sand berms on the Isles Dernieres segment of the state's coastal barrier islands. This application for emergency authorization is identical to the application submitted by the state on May 18, 2010. Subsequent to the May 18 application, a sequence of comments and responses was generated. Because the National Oceanic and Atmospheric Administration (NOAA) has not yet seen a draft of the emergency authorization for this project, NOAA substantially reiterates the comments provided on May 21 and May 25, 2010.

Procedural, environmental and efficacy concerns:

- Under normal permitting procedures, a project of this scope would likely require full NEPA compliance. NOAA has previously recommended that NEPA analysis for this project and the other segments of the barrier island berm construction project should be combined to facilitate cumulative impacts analysis for the entire barrier island chain. NOAA requests the Army Corps of Engineers express its intention to conduct a full NEPA analysis and draft an Environmental Impact Statement.
- It is unclear whether this is a one-time emergency action or whether the applicant intends to continue to use limited sediment resources to replenish and maintain the berm. Post-emergency expectations regarding possible removal, degradation and gapping are not addressed. It is unclear if maintenance of the berm for the duration of the existing emergency is proposed.
- The proposed action could result in adverse impacts to essential fish habitat, commercially and recreationally important fisheries, and endangered and threatened species. The proposal lacks sufficient detail to assess or quantify potential impacts. As the permitting process proceeds and if the action is approved, NOAA reserves the right to provide additional recommendations and terms and conditions based on its statutory and regulatory authorities.
- Direct and indirect impacts to shoreline habitats, consequences of sediment transport, and effects of changes in wave climate have not been determined and could be substantial. Modeling of at least a preliminary scope should be conducted prior to initiating removal of material from approved borrow sites.
- Concerns regarding the overall timing of implementation and the efficacy of the project include uncertainty in constructing the project in a meaningful time frame and technical concerns regarding constructability and stability of the berm even over short times frames.

- Depletion of finite Louisiana sand resources could affect future high priority restoration projects, largely negating the planning efforts of the past two decades.

NRDA/Responsible Party

- The potential involvement of the applicant may raise uncertainty regarding the party responsible for clean-up, remediation and restoration associated with sediment that may become oiled both in the constructed berm as well as sediment that may become dispersed from the berm (e.g., in storm events). The state of Louisiana, in its response to agency comments dated May 20, 2010, states its understanding that the U.S. Coast Guard is the responsible party for coordinating the removal of all oil captured by the proposed berm. This assumption must be verified and should be included as a permit provision.
 - It remains unclear whether the state of Louisiana has provided assurances that it will fund not only the construction of the berm as a mechanism to intercept oil, but will also support follow up work required to monitor construction, collect data to evaluate impacts to habitat and living marine resources, and fund a mitigation and adaptive management plan to ensure resources are restored to pre-spill conditions. Adaptive management should also anticipate future work on other programs ongoing in Louisiana, including CWPPRA, Louisiana Coastal Act, Louisiana Coastal Protection and Restoration, Southwest Louisiana Feasibility Study, Hurricane Damage and Storm Surge Risk Reduction, and other efforts to provide long-term protections and benefits to property, lives, and ecosystem values.
 - The state of Louisiana is encouraged to work with the other state and federal natural resource trustees to develop an emergency restoration strategy that is consistent with the intent of the Oil Pollution Act to minimize injury to natural resources and services. An emergency restoration plan may best address the state of Louisiana's goal of reducing impacts to its natural resources and be more responsive to such an unpredictable and dynamic situation.

Phased Implementation

Understanding the critical nature of the current situation, phased authorization and implementation of the proposed action may be appropriate. This approach would allow immediate action in areas under imminent threat of oiling. Also, phased implementation could provide time to conduct analyses to assess and thereby avoid and minimize potential geomorphologic impacts and evaluate berm stability issues in a time frame to guide implementation of subsequent segments of the proposed project.

NOAA recommends adding a Special Condition relating to mitigation and adaptive management as noted in our NRDA/Responsible Party comment above. The mitigation and adaptive management plan should be developed in coordination with the state and federal resource agencies, and it should be designed to ensure that any residual berm features will not interfere with present and future coastal conservation efforts or restoration projects. The plan should also address unavoidable impacts caused by berm

construction and propose suitable mitigation measures and adaptive management approaches to make the public whole for any loss of ecosystem services and benefits caused by berm construction.

NOAA recommends adding Special Conditions to address the following Endangered Species Act concerns:

- Any take of species listed under NMFS' purview shall be immediately reported to NMFS at the following e-mail address within 24 hours at takereport.nmfsser@noaa.gov. All animals shall be scanned internally and externally for tags and identifying information included in the take report.
- Any observed carcass shall be secured until appropriate authorities arrive to document stranding. All carcasses shall be scanned internally and externally for tags and identifying information included in the take report.

Quebedeaux, Bobby D MVN

From: Ettinger.John@epamail.epa.gov
Sent: Wednesday, June 02, 2010 4:51 PM
To: Quebedeaux, Bobby D MVN
Cc: jim_boggs@fws.gov; Patti Holland (E-mail); Patrick Williams; Richard Hartman; rachel.sweeney@noaa.gov; Keeler.Barbara@epamail.epa.gov; Duke, Ronnie W MVN; Mayer, Martin S MVN; Serio, Pete J MVN; Honker.William@epamail.epa.gov; McCormick.Karen@epamail.epa.gov; Miller.Clay@epamail.epa.gov; Parrish.Sharon@epamail.epa.gov; Woodka.Janet@epamail.epa.gov; Keehner.Denise@epamail.epa.gov; Landers.Timothy@epamail.epa.gov; Evans.David@epamail.epa.gov; Frazer.Brian@epamail.epa.gov; EOC_Water; Croll.Brittany@epamail.epa.gov
Subject: Re: Emergency Authorization Request (Isle Dernieres)
Attachments: Isles Dernieres berm.doc



Isles Dernieres
berm.doc (39 K...

Bobby,

Per your request, attached are EPA's comments on the white paper and the Isle Dernieres berm proposal. Thanks for your coordination on this matter.

John Ettinger
U.S. EPA Region 6

-----"Quebedeaux, Bobby D MVN" <Bobby.D.Quebedeaux@usace.army.mil> wrote: -----

To: <jim_boggs@fws.gov>, "Patti Holland (E-mail)" <Patti_Holland@fws.gov>, "Patrick Williams" <Patrick.Williams@noaa.gov>, "Richard Hartman" <Richard.Hartman@noaa.gov>, <rachel.sweeney@noaa.gov>, John Ettinger/R6/USEPA/US@EPA, <kbalkum@wlf.louisiana.gov>, "Karl Morgan" <Karl.Morgan@LA.GOV>, <christine.charrier@la.gov>, "Jamie Phillippe" <Jamie.Phillippe@LA.GOV>, <dbutler@wlf.la.gov>, Barbara Keeler/R6/USEPA/US@EPA
From: "Quebedeaux, Bobby D MVN" <Bobby.D.Quebedeaux@usace.army.mil>
Date: 06/01/2010 03:14PM
cc: "Duke, Ronnie W MVN" <Ronnie.W.Duke@usace.army.mil>, "Mayer, Martin S MVN" <Martin.S.Mayer@usace.army.mil>, "Serio, Pete J MVN" <Pete.J.Serio@usace.army.mil>
Subject: Emergency Authorization Request (Isle Dernieres)

All,

Per management request, I am sending the attached "Emergency Permit Draft Input to White Paper" which includes areas of Isle Dernieres for your review- if you have any further comments (from those you have already provided for ISLE DERNIERES), please forward by COB- June 2, 2010. Note: The current Corps "draft" emergency authorization has your previous comments listed as

special conditions.

Thanks again for your time and effort in association with this emergency authorization request.

Bobby

-----Original Message-----

From: Quebedeaux, Bobby D MVN

Sent: Tuesday, May 18, 2010 1:20 PM

To: 'jim_boggs@fws.gov'; 'Patti Holland (E-mail)'; 'Patrick Williams';

'Richard Hartman'; 'rachel.sweeney@noaa.gov';

'Ettinger.John@epamail.epa.gov'; 'kbalkum@wlf.louisiana.gov'; 'Karl Morgan';

'christine.charrier@la.gov'; 'Jamie Phillippe'

Cc: Duke, Ronnie W MVN

Subject: Emergency Authorization Request (Isle Dernieres)

All,

Emergency authorization is requested by State, see below. Please respond by COB, May 19, 2010. Thanks.

Bobby

Bobby Quebedeaux

Senior Environmental Resources Specialist

U.S. Army Corps of Engineers

New Orleans District

Regulatory Branch, Western Section

(504) 862-2224 office

(504) 862- 2574 fax

<http://www.mvn.usace.army.mil/ops/regulatory/index.asp>

In order to assist us in improving our service to you, please complete the survey found at <http://per2.nwp.usace.army.mil/survey.html>

-----Original Message-----

From: Duke, Ronnie W MVN

Sent: Tuesday, May 18, 2010 12:28 PM

To: Quebedeaux, Bobby D MVN

Subject: FW: Emergency Authorization Request (Isle Dernieres)

For your information and action!!!!

-----Original Message-----

From: Serio, Pete J MVN

Sent: Tuesday, May 18, 2010 12:05 PM

To: Duke, Ronnie W MVN

Subject: FW: Emergency Authorization Request (Isle Dernieres)

**EPA Review of
Isles Dernieres Barrier Island Chain
Berm Proposal
June 2, 2010**

The Corps of Engineers New Orleans District (Corps) has requested comments on a draft emergency permit NOD-20, MVN-2010-01136-WJ, transmitted by New Orleans District via email on May 18, 2010. The State of Louisiana has requested to place dredged material along three islands of the Isles Dernieres barrier island chain, Terrebone Parish, Louisiana.

Isles Denieres Barrier Islands (approximately 20 miles):

Berm Reach 1 – Raccoon Island (western segment of the Isles Denieres Barrier Islands)

Berm Reach 2 – Whiskey Island (central segment of the Isles Denieres Barrier Islands)

Berm Reach 3 – Trinity Island (eastern segment of the Isles Denieres Barrier Islands)

In a letter dated May 18, 2010, the State requested emergency authorization to perform restoration work on these barrier islands for purposes of enhancing the capability of the islands to reduce the inland movement of oil from the BP Deepwater Horizon Oil Spill. The proposed work would entail removal of sediment from Ship Shoal and South Pelto areas depositing the dredged materials in berms along these islands.

EPA Comments

EPA is concerned that the New Orleans District continues to consider this proposal for emergency authorization, in light of the fact that a permit was issued on May 27, 2010, to the State of Louisiana for construction of six berms in the Chandeleur Islands and Barataria Bay (two berms in the Chandeleur Islands and four berms in area just west of the Mississippi River in the Barataria Bay basin). The premise of that permit was that the berms were to serve as a pilot to determine the effectiveness of this approach in reducing the movement of oil. Upon evaluation of the pilot berms' oil containment effectiveness it would then be decided if future projects would be warranted. This information is necessary for an evaluation of the effectiveness of this berm technology and design. Until this information is obtained, it is EPA's recommendation that any future berm permit decisions (including this proposal) should either be held in abeyance or the Corps could, pursuant to 40 CFR 230.12 of the CWA Section 404(b)(1) Guidelines, deny the permit proposals without prejudice because of insufficient information to conduct the Guidelines evaluation.

Effectiveness at stopping oil: In the proposal, the primary focus is on placing material adjacent to existing barrier islands and not to fill in deep water passes or in open water reaches. Currently proposing to leave these openings is a promising approach to minimize potential estuarine sediment transport, salinity, and hydrologic impacts. However, placing sand berms only in front of existing islands, while leaving numerous

and significant tidal passes open, raises questions of the proposal's ability to arrest movement of oil into estuarine waters and marshes. It is expected that the majority of oil will migrate through the "big passes." Although the more limited sand berm may arrest some oil migration, it is unlikely to stop the majority of the oil from migrating inland. This concern appears to be supported by a recent Corps' document, "White Paper Emergency Permit Evaluation, Technical Analysis, U.S. Army Corps of Engineers" dated May 24, 2010. This Corps' document presented information from a high-resolution detailed hydrodynamic model. This model, a regional ADCIRC model for the entire Louisiana/Mississippi coast indicated that a relatively larger tidal prism, more energetic tidal action, and increased tidal velocities occur within Terrebonne Bay. The White Paper also indicated that this area had evidence of relatively higher flood-tide water particle excursions which would tend to transport the oil spill deeper into the bay. In light of this larger tidal action and lack of freshwater delivery to this system, this wetland basin will be most susceptible to contamination by the oil spill. The larger and more energetic passes will dictate movement of the oil spill into this basin. To be effective, the fight to keep the oil out of wetlands will probably have to be waged at the position of the wetlands themselves, not at the barriers and entry passes into the bay, a difficult proposition because of the many more miles of complex wetland shoreline inside the bay versus the length of coastline and limited number of passes at the outer perimeter. The Corps' White Paper also stated that analysis results concluded that the proposed protective sand berms alone would not be an effective means for keeping oil out of the wetland areas.

Furthermore, EPA has concerns that once berm construction is underway, the constructed berms themselves, dredging activity, barge and other boat equipment traffic, and floating pipe for sediment transport could exacerbate the emergency situation in the Gulf. This could stem from either trapping oil that has already made its way into interior waters behind the berms, exacerbating movement of oil in the Gulf water column, re-suspending bottom sediments that have adsorbed oil and dispersants, impeding movement of other emergency boat traffic/equipment, or impeding deployment of other emergency actions.

Construction timing: We are concerned about the element of time. Can the proposed project realistically be constructed in time to have a measurable effect on controlling movement of oil into interior estuarine waters and wetlands? However, the threat to Louisiana's coastal marshes is already present. Given the urgency of the situation, we must focus first on actions that have the greatest possibility of preventing further ecological and economic harm. We recommend placing increased focus on deployment of state-of-the-science boom technology in tidal passes, in front of existing barrier shorelines and coastal wetlands. Such technology is highly mobile, rapidly deployable, can be implemented in multiple layers, and would intercept oil without long-term environmental consequences risked by construction of the proposed sand berm structures. We strongly encourage utilization of such approaches given our concerns about continued migration of oil inland through the passes.

Protect valued sediments for future coastal restoration: EPA is concerned about the potential use of sediments that are already authorized for restoration projects. The use of

the proposed Ship Shoal borrow site should be minimized, as that shoal has been identified as a borrow site for future coastal restoration projects (LCA and CWPPRA). EPA does not object to the use of the non-restoration project identified borrow areas of Ship Shoal. The applicant should contact the Minerals Management Service for permission to use Ship Shoal as a borrow area.

Ensure safe dredged sediments: The information provided in this proposal does not include information to analyze or test the borrow area. There is no information that would indicate that the applicant would be required to identify and avoid all submerged structures, objects and pipelines in the pilot project, nor is there specific provision for testing borrow areas for potentially contaminated sediments prior to dredging. Identification of appropriate constituents to testing for in sediments, detection levels, the potential need for organism toxicity testing, and design/layout of sampling scheme are all important components of testing these sediments for potential contamination. However, none of this needed information has been discussed or shared with EPA or the other Federal agencies. EPA, as well as our other Federal partners, need to be engaged in the planning, design, implementation and review of results from this crucial additional testing. We also recognize the challenge of collecting, analyzing, and informing project dredging decisions with this yet-to-be collected data, in a manner that can address the immediate need of arresting shoreward-moving oil.

Planning to address contaminated berm sediments: EPA is concerned that the proposal gives no consideration to either short or longer-term planning, responsibility or costs for removal/remediation of berm sediments that become contaminated from intercepting waterborne oil. Designing and constructing a structure to arrest contaminants without discussing and deciding how contaminated materials will be properly managed and removed from the environment is of great concern in this highly dynamic and vulnerable coastal environment. Safe and rapid removal of contaminated sediments would be critical for ensuring a hurricane or tropical storm does not subsequently disperse these materials into bays and wetlands. It is also critical to ensure that potential upland disposal of sediments that have been contaminated with oil does not create Environmental Justice or other environmental problems by potentially harming the coastal communities we seek to protect.

In addition, there is significant potential that sediments used for berm construction may become contaminated even during project construction due to the extended period of time over which these berms will be built. These sediments would have to be removed or remediated concurrent with construction. If not, these contaminated sediments will be re-introduced to the aquatic environment as the berm erodes naturally. EPA and our other Federal emergency response framework partners would need to participate in developing and implementing appropriate contaminated sediment identification, remediation, removal, and/or containment plans.



BOBBY JINDAL
GOVERNOR

State of Louisiana

ROBERT J. BARHAM
SECRETARY

DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

JIMMY L. ANTHONY
ASSISTANT SECRETARY

June 2, 2010

Mr. Pete J. Serio, Chief
Regulatory Branch
United States Army Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

RE: *Emergency Permit including areas of Isle Dernieres*
Notice Date: June 01, 2010

Dear Mr. Serio:

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

Filling of existing tidal passes may cause remaining open passes to experience higher volumes of tidal flow and increased tidal velocities during tidal movements and consequently cause increased erosion of adjacent project features and barrier islands. The project should allow for ample tidal exchange at a sufficient number of passes; open areas should be created at existing historic passes in order to save borrow material and not interrupt the existing tidal ebb and flow on which interior marshes, estuarine and marine organisms, and other resources rely.

Will the protective berm be monitored and maintained at the design elevations permanently or allowed to degrade and subside once the oil spill is no longer a threat to Louisiana's coast?

Because of the size of the oil spill, it is possible that the protective berm may be constructed with oil-contaminated sediments. Caution should be used to ensure that oil-contaminated sediments are not placed adjoining existing marsh, barrier islands or barrier shorelines.

The applicant shall identify existing infrastructure, such as pipelines, flowlines and well protection structures, which may potentially be affected by the proposed activity. Project feature design and future maintenance will need to address existing infrastructure.

Prior to construction activities on the Isle Dernieres Barrier Island Refuge, contractors shall coordinate with the Louisiana Department of Wildlife and Fisheries.

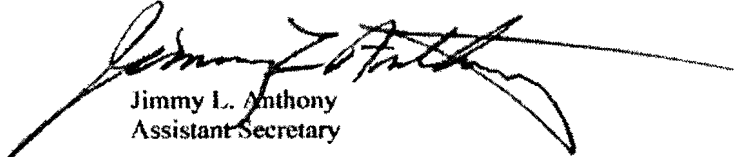
The Louisiana Natural Heritage Database indicates the presence of bird nesting colonies within one mile of this proposed project. If the project will be occurring during the nesting season (Feb 16th-Sept. 15th) please consult with the Michael Seymour the Louisiana Natural Heritage Program Ornithologist at [REDACTED]

Page 2
Emergency Permit including areas of Isle Dernieres
June 2, 2010

Our Database also indicates that several federally listed or state rare species and natural communities are known to occur in the area. These species and communities include sea grass beds, coastal mangroves, manatees, diamondback terrapin and sea turtles.

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact Habitat Section biologist Matthew Weigel at [REDACTED] should you need further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmy L. Anthony". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jimmy L. Anthony
Assistant Secretary

mw/cm

c: Matthew Weigel, Biologist
Carolyn Michon, Biologist
EPA Marine & Wetlands Section
USFWS Ecological Services

Quebedeaux, Bobby D MVN

From: Jamie Phillippe [Jamie.Phillippe@LA.GOV]
Sent: Wednesday, June 02, 2010 4:39 PM
To: Quebedeaux, Bobby D MVN
Cc: Chris Piehler; Dwight Bradshaw; Jeff Dauzat; Cheryl Nolan; Melvin "Mitch" Mitchell; Tom Killeen; Gary Aydell; Ronnie Bean; Betty Brousseau; Sanford Phillips; _DEQ-BP Deepwater Horizon Oil Spill
Subject: RE: Emergency Authorization Request (Isle Dernieres)

Bobby,

DEQ has the following recommendations concerning the "White Paper":

- Monitor borrow sites and the protection berms for the presence of oil. Cease dredging/berm building if oil is present. Remove oil from berms prior to continuing berm building.
- The IC Houma plans to work with this operation to clean as the process proceeds to prevent burial of oil. If oil is buried incidentally, as with tailing accumulation, the island will be remediated after final landfall of all oil related to this incident.

Thanks,
Jamie Phillippe
Louisiana Department of Environmental Quality
401 Water Quality Certifications

-----Original Message-----

From: Quebedeaux, Bobby D MVN [mailto:Bobby.D.Quebedeaux@usace.army.mil]
Sent: Tuesday, June 01, 2010 3:15 PM
To: jim_boggs@fws.gov; Patti Holland (E-mail); Patrick Williams; Richard Hartman; rachel.sweeney@noaa.gov; Ettinger.John@epamail.epa.gov; kbalkum@wlf.louisiana.gov; Karl Morgan; Christine Charrier; Jamie Phillippe; dbutler@wlf.la.gov; keeler.barbara@epa.gov
Cc: Duke, Ronnie W MVN; Mayer, Martin S MVN; Serio, Pete J MVN
Subject: Emergency Authorization Request (Isle Dernieres)

All,
Per management request, I am sending the attached "Emergency Permit Draft Input to White Paper" which includes areas of Isle Dernieres for your review- if you have any further comments (from those you have already provided for ISLE DERNIERES), please forward by COB- June 2, 2010. Note: The current Corps "draft" emergency authorization has your previous comments listed as special conditions.

Thanks again for your time and effort in association with this emergency authorization request.
Bobby

-----Original Message-----

From: Quebedeaux, Bobby D MVN
Sent: Tuesday, May 18, 2010 1:20 PM
To: 'jim_boggs@fws.gov'; 'Patti Holland (E-mail)'; 'Patrick Williams'; 'Richard Hartman'; 'rachel.sweeney@noaa.gov'; 'Ettinger.John@epamail.epa.gov'; 'kbalkum@wlf.louisiana.gov'; 'Karl Morgan'; 'christine.charrier@la.gov'; 'Jamie Phillippe'
Cc: Duke, Ronnie W MVN

Quebedeaux, Bobby D MVN

From: Patti_Holland@fws.gov
Sent: Monday, May 24, 2010 1:38 PM
To: Quebedeaux, Bobby D MVN
Subject: Applicant' response to agency comments on Isle Dernieres Barrier Defense

Bobby,

The Service has reviewed the applicant's response to our comments on their subject project, and we would like to make the following supplemental comments for clarification purposes:


We realize that the objective of the berm is to serve as a barrier; however, there are some smaller tidal inlets on the islands that need to remain open. In the applicants' response to our Comment Number 7, they imply that they will only leave major tidal inlets open; however, in their response to our Comment Number 10, they imply that they will work with the agencies to identify beneficial gaps in tidal inlets. We are hoping that the later response is the intended course of action.

With regard to our recommendations in Comment Number 8, we are pleased to see that the applicant is intending to work with LDWF concerning the minimization of impacts to colonial birds. We caution, however, that they must also work with our office as we are the agency that enforces the Migratory Bird Treaty Act.

Thanks for the opportunity to provide this additional feedback.

Patti

Patti Holland


U.S. Fish and Wildlife Service
646 Cajundome Blvd., Ste. 400
Lafayette, La 70506

Quebedeaux, Bobby D MVN

From: Miles Croom [Miles.Croom@noaa.gov]
Sent: Friday, May 21, 2010 4:35 PM
To: Lee, Alvin B SAM; Quebedeaux, Bobby D MVN
Cc: 'sally.yozell@noaa.gov'; Jainey Bavishi; Eric Schwaab; Samuel Rauch; Steve Murawski; Roy Crabtree; Buck Sutter; kim amendola; Heather Blough; Pat Montanio; Brian T Pawlak; Chris Doley; Margaret Davidson; Todd Davison; Doug Helton; Robert Haddad; David Bernhart; Eric Hawk; Rusty Swafford; Richard Hartman; Patrick Williams; Rachel Sweeney
Subject: NOAA comments on Louisiana responses to agency comments
Attachments: NOAA comments to LA response 5-21-10.docx; miles_croom.vcf



NOAA comments to LA response 5... miles_croom.vcf
(368 B)

Colonel Lee,

Attached are NOAA's comments on the state of Louisiana's responses to agency comments on the Emergency Authorization Request for Isles Dernieres Barrier Island Defense proposal. Thank you for the opportunity to review.

Miles Croom

National Oceanic and Atmospheric Administration

Agency Comments on
State of Louisiana Responses dated May 20, 2010, to Agency Comments on
Emergency Authorization Request
Isles Dernieres Barrier Island Defense

May 21, 2010

The National Oceanic and Atmospheric Administration (NOAA) has reviewed the state of Louisiana's May 20, 2010, response to agency comments regarding emergency authorization request for the Isle Dernieres "Barrier Island Defense" proposal. Generally, NOAA finds the document attempts to address concerns raised by involved agencies. However, NOAA's review identified remaining concerns as summarized below.

Procedural, environmental and efficacy concerns:

- Subsequent processing under normal permitting procedures would likely require full NEPA compliance commensurate with an activity of this size and scope (i.e., Regulatory Environmental Impact Statement is warranted). NOAA has previously recommended that NEPA analysis for this project and the Timbalier to Chandeleur Islands project should be combined to facilitate cumulative impacts analysis for the entire barrier island chain. In addition, NOAA requests the Army Corps of Engineers to express its intention to conduct a full NEPA analysis and draft an Environmental Impact Statement. No written commitment on these recommendations has been made.
- It is unclear whether this is a one-time emergency action or whether the applicant intends to continue to use limited sediment resources to maintain the berm. Post-emergency expectations regarding possible removal, degradation and gapping are not addressed. It is unclear if maintenance of the berm for the duration of the existing emergency is proposed.
- This project may not be suitable for authorization under a general permit, because the individual action is not insignificant, nor is it cumulatively insignificant when combined with its partner proposal.
- The proposed action could result in impacts to essential fish habitat, commercially and recreationally important fisheries, as well as endangered and threatened species. The plan presently lacks sufficient detail to assess or quantify potential impacts. As the permitting process proceeds and if the action is approved, NOAA reserves the right to provide additional recommendations and terms and conditions based on its statutory and regulatory authorities.
- Direct and indirect impacts to shoreline habitats, consequences of sediment transport, and effects of changes in wave climate have not been determined and could be substantial. Modeling of at least a preliminary scope should be conducted prior to initiating removal of material from approved borrow sites.

- Overall timing of implementation and efficacy concerns include ability to implement the project in a meaningful time frame and technical concerns regarding constructability and stability of the berm even over short times frames.
- Depletion of finite Louisiana sand resources could affect future high priority restoration projects, largely negating the planning efforts of the past two decades.

NRDA/Responsible Party

- The potential involvement of the applicant may raise uncertainty regarding the party responsible for clean-up, remediation and restoration associated with sediment that may become oiled both in the constructed berm as well as sediment that may become dispersed from the berm (e.g., in storm events).
- The state asserts its belief that the U.S. Coast Guard would be the responsible party for coordinating the removal of all oil captured by the berm. This should be verified prior to issuance of any permit to proceed.

Phased Implementation

- Understanding the critical nature of the current situation, phased authorization and implementation of the proposed action may be appropriate.
- Would allow immediate action in areas under imminent threat of oiling
- Could provide time to conduct analysis to assess and thereby avoid and minimize potential geomorphologic impacts and evaluate berm stability issues in a time frame to feedback to implementation of the proposed project.

Quebedeaux, Bobby D MVN

From: Brad_Rieck@fws.gov
Sent: Wednesday, May 19, 2010 4:44 PM
To: Quebedeaux, Bobby D MVN; Ronnie.Duke@usace.army.mil
Cc: Jim_Boggs@fws.gov; Patti_Holland@fws.gov; Jeff_Weller@fws.gov; Walther, David; Darryl_Clark@fws.gov
Subject: Emergency Authorization Request (Isle Dernieres)

Bobby:

The U.S. Fish and Wildlife Service (Service) has received your May 19, 2010, facsimile transmitting the subject emergency authorization request (MVN-2010-01136-WJJ). You requested our comments regarding the Louisiana Office of Coastal Protection's (LOCP) proposed expansion of the Barrier Island Defense project to include the Isle Dernieres barrier island chain (i.e., Trinity Island, Whiskey Island, and Raccoon Island). LOCP proposes to construct and/or provide measures necessary to protect wetlands from the oil spill associated with the Deepwater Horizon (i.e., Mississippi Canyon 252) blowout. An earthen dike is proposed to be constructed along coastal barrier islands to prevent and/or reduce the amount of oil entering the project area. The comments below are submitted in accordance with the technical assistance provisions of the Fish and Wildlife Coordination Act (FWCA; 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), but do not constitute the report of the Secretary of the Interior as required by Section 2(b) of that Act. In addition, these comments pertain to the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and provide informal consultation information under the authority of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) in anticipation of emergency consultation.

The Service is committed to the protection of Louisiana's wetlands from ongoing land loss and the added impact of the oil spill. We also remain committed to working closely with all agencies involved in spill response efforts to further explore alternatives and alternative features in order to reduce the current degree of risk and uncertainty associated with any oil spill response activities.

On May 12, 2010, the Service provided a memo transmitting ESA emergency consultation procedures to Federal Agencies. In addition to the guidance provided in that memo, our office would like to add the following recommendations specifically designed to protect designated critical habitat for the Federally threatened piping plover:

- * Avoid impacting the intertidal area so that piping plover foraging habitat remains available. If possible, allow for a 100-foot buffer from the toe of the berm to mean low low water.
- * Keep all construction equipment out of the area from mean low low water to the island dune/vegetation line;
- * If solid berm extends for greater than a 6-mile length, post-cleanup gapping should be considered to increase the likelihood of washover events, sand flat creation and restoration of tidal interchange.

Furthermore, the Service suggests the following recommendations as mitigative measures to minimize project-associated impacts to barrier island ecosystems and to protect migratory birds:

- * Minimize the use of the proposed Ship Shoal borrow site, as that shoal has been identified as a borrow site for future coastal restoration projects (LCA and CWPPRA). The Service does not object to the use of the non-restoration project identified borrow areas of Ship Shoal. The applicant should contact the DOI Minerals Management Service for permission to use Ship Shoal as a borrow area.

- * The berm should be constructed strategically to intercept oil where it is coming ashore first.
- * Construction should not result in problematic changes in natural sediment transport, fish migration, or salinity regimes.
- * Tidal inlets should not be blocked by the berm. Temporary booms should span tidal inlets to intercept oil.
- * To minimize disturbance to colonies containing nesting gulls, terns, and/or black skimmers, the Service typically recommends that all activity occurring within 650 feet of a colonial nest site be restricted to the non-nesting period (i.e., September 16 through April 1). For colonies containing nesting brown pelicans, the Service typically recommends that all activity occurring within 2,000 feet of the nesting colony be restricted to the non-nesting period (i.e., September 15 through March 31). The Service should be notified when colonial bird nest sites are identified, and no activity should occur on the islands within the recommended buffer zones during the nesting season. An observer should monitor each colonial nest site to determine the minimum distance at which construction can occur without disturbing nesting birds. If the recommended buffer restrictions are not feasible for seaward berm construction purposes, the Service should be contacted to assist in the determinations of the maximum distance practicable. If feasible, the alternative of gapping and boom deployment should be investigated in these areas. That distance could be utilized as the construction zone buffer for that nesting area and a boom(s) could be placed in lieu of the berm within that buffer distance until nesting season is complete at which time the berm can be completed. The Louisiana Department of Wildlife and Fisheries' Fur and Refuge Division (Tom Hess: [REDACTED]) may be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies.
- * Monitor post-construction and conduct necessary work (e.g., gap installation, localized levee degradation) to minimize any adverse impacts of oil removal work and short-term sediment redistribution.

In general, in order to minimize adverse impacts to piping plover, nesting colonial birds, and the barrier island coastal ecosystem, the applicant should work in collaboration with the Service, NOAA, and USGS to identify beneficial gaps in tidal inlets and along the shoreline to strategically install booms, if they can provide the barrier necessary to stop oil migration.

Thank you for the opportunity to provide these comments. If you have any questions, please call Patti Holland at [REDACTED], or myself at the number below.

Brad Rieck
Deputy Field Supervisor
U.S. Fish and Wildlife Service
Louisiana Ecological Services Office
[REDACTED]
brad_rieck@fws.gov

Quebedeaux, Bobby D MVN

From: Miles Croom [Miles.Croom@noaa.gov]
Sent: Wednesday, May 19, 2010 6:22 PM
To: Lee, Alvin B SAM; Quebedeaux, Bobby D MVN; Duke, Ronnie W MVN
Cc: Roy Crabtree; Buck Sutter; Heather Blough; kim amendola; Rusty Swafford; Richard Hartman; Patrick Williams; 'sally.yozell@noaa.gov'; Jainey Bavishi; Pat Montanio; Chris Doley; Brian T Pawlak; Margaret Davidson; Todd Davison; Doug Helton; Robert Haddad; Lois Schiffer; Eric Schwaab; Samuel Rauch; Steve Murawski
Subject: NOAA comments on Isles Dernieres barrier island berm proposal
Attachments: SER HCD Barrier Islands Berm West 5-19-10.docx; SER PRD Concerns for Isles Dernieres.docx; miles_croom.vcf



SER HCD Barrier
Islands Berm W...



SER PRD Concerns
for Isles Der...



miles_croom.vcf
(368 B)

Colonel Lee:

NOAA provides general comments on the proposal by the state of Louisiana dated May 18, 2010, to construct sand berms on the Isles Dernieres segment of Louisiana's barrier islands from Raccoon Island to Trinity Island. This project would complement the proposal by the state of Louisiana dated May 11, 2010, to construct sand berms on barrier islands from Timbalier Island to the Chandeleur Islands. If approved, sand berms would be constructed along the entire chain of barrier islands along Louisiana's coast from Raccoon Island, at the western end of the chain, to the Chandeleur Islands, at the eastern end of the chain.

While recognizing the urgency of the potential threat posed by the oil spill, NOAA is concerned that the two projects as proposed face significant environmental, economic, and engineering challenges. Of particular concern is the necessity to resolve the Natural Resource Damage Assessment issue of whether this action will qualify as an emergency restoration action, and the resulting position of the responsible party. If the two proposals are not approved for funding by either the responsible party or from the Oil Spill Liability Trust Fund, the applicant should be required to demonstrate a financial commitment to complete the work, if approved by the Army Corps of Engineers, New Orleans District (District). Such commitment should incorporate not only costs for constructing the berms but also provide for monitoring of effects, planning of needed mitigation measures, and completion of post-construction activities required by the permit.

Because NOAA has not yet seen the permit terms and conditions, our remaining comments are made in anticipation of its issuance and focus on anticipated and potential adverse impacts to NOAA trust resources. When specific permit language is made available, NOAA will if necessary clarify and elaborate on the comments attached here. The attached comments are provided pursuant to authorities of the Fish and Wildlife Coordination Act, the essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act. At such time as NOAA is able to review the emergency permit and its terms and conditions, NOAA reserves the option to provide additional recommendations. NOAA also looks forward to working with the District when it issues the Individual Permit for this action and conducts the analyses required by the National Environmental Policy Act (NEPA). In addition, if the District issues permits for both barrier islands berm projects proposed by the state of Louisiana, NOAA recommends the NEPA analysis for the two projects be combined, for the purpose of facilitating the analysis of cumulative impacts.

If the project is permitted by the District, NOAA requests to be included in efforts to design and implement monitoring and adaptive management measures to evaluate the effectiveness of the project in minimizing the impacts of the oil spill and to establish a baseline for use in developing future projects to provide long-term

ecosystem benefits. Thank you for the opportunity to review and provide these comments.

Miles Croom

National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Region

Comments on Louisiana Barrier Island Berms (West)
Provided under authority of the Essential Fish Habitat provisions of the
Magnuson-Stevens Fishery Conservation and Management Act
And
Fish and Wildlife Coordination Act

NOAA's National Marine Fisheries Service (NMFS) has reviewed the request for emergency authorization titled "Barrier Island Defense [West]" submitted by the state of Louisiana. The proposal was provided for interagency review by electronic mail dated May 18, 2010, from the Army Corps of Engineers, New Orleans District (District) and is proposed for emergency authorization under the District's General Permit 20. The proposed action is to dredge an estimated 15 million cubic yards of material by unspecified methods from areas designated as Ship Shoal and South Pelto borrow areas and to place that material as a protective berm in the vicinity of Raccoon, Whiskey and Trinity Islands, which constitute the Isles Dernieres chain of barrier islands. This proposal is a westward extension the "Barrier Island Defense [East]" proposal, which would extend from the Chandeleur Islands in St. Bernard Parish to the western terminus of Timbalier Island in Terrebonne Parish. That project would involve dredging and placing of up to 92 million cubic yards to construct an 86-mile long protective berm.

NMFS offers the following general comments and specific recommendations for the District's consideration in evaluating this additional request from the state. These comments should be considered supplemental to the specific permit recommendations submitted on May 17, 2010, in response to the District's request for recommended permit conditions regarding the Barrier Island Defense East proposal.

General Comments

- The applicant has stated that it estimates that the Barrier Island Defense East plan could be completed in four to six months; no timeline is provided for the current proposed Barrier Island Defense West proposal. NMFS cannot verify the construction time estimates; however, even the rapid completion estimated by the applicant raises concerns regarding the efficacy of the proposed action in sequestering oil that may already have come ashore.
- During various meetings and teleconferences, the applicant has indicated the project purpose is to construct a temporary nearshore berm to prevent or reduce landward migration of oil resulting from the Deepwater Horizon incident. The anticipated duration of the proposed berm should be more clearly defined.
- Cumulatively, the two proposals could use over 100 million cubic yards of high-quality sand for a purpose that has been described as temporary. Given the

scarcity of such sediment resources available for coastal restoration, NMFS is concerned the current proposal may not achieve the best use of these limited resources. Some of these sediment sources are currently under consideration for large-scale barrier island restoration under the Louisiana Coastal Area project and the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) program.

- Many of the areas proposed for construction are currently open water, active tidal passes, and are exposed to significant wave energy. NMFS believes that berm construction in many of these areas (i.e., southern Chandeleur Islands, Shell Island Bay, Quatre Bayou Pass, West Belle Pass to East Timbalier Island and east of Trinity Island) is highly unlikely to be achievable, and even if constructed, the anticipated life span would be on the order of weeks to months at best. Additionally, the proposed berms would have a minimal construction profile, the height and width of which is likely to be immediately reduced through material equilibration and settlement. Analysis of the constructability and near term stability of the berm could be conducted by qualified coastal engineers in very short order.
- The proposed berm would be most stable immediately adjacent to existing intact shorelines. However, many of these areas may already provide some level of barrier protection against encroachment of contaminants.
- NMFS' experience with Louisiana barrier island restoration has demonstrated that storm overwash will often transport sandy material landward significant distances (up to 1,000 to 1,500 feet). It appears the more material available on the shore face, the more material will be distributed through overwash processes. Placing large volumes of new, unstabilized material could provide an additional mechanism for distribution of potentially contaminated sediments if weather events produce water levels in excess of the berm height.
- The applicant has indicated that any oil captured by the proposed berm would be removed, although it remains unclear whether the applicant will serve as the responsible party in this regard.
- It should be clarified with the applicant that the project is undertaken solely as a response effort and that restoration credits are not contemplated. Additional coordination by the applicant with the U.S Coast Guard and NOAA's Office of Response and Restoration should be required.
- This proposal, combined with the proposed work to construct berms from Timbalier Island to the Chandeleur Islands, would likely require most, if not all, of the dredging capacity of the nation's fleet of dredge vessels. One consequence of the demand this project would place on the nation's dredging fleet is that it would make it impossible for NMFS to construct either of the two projects funded by the CWPPRA program. Delays caused by lack of dredging capacity would

likely result in changed project conditions, increased costs due to project redesign and limited supply of borrow material, and loss of ecosystem benefits to the public from restoring these areas.

Specific Comments

NMFS recommends the following conditions be included in any emergency authorization of the Barrier Island Defense (west) project. These comments are provided under the authority of the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act and the Fish and Wildlife Coordination Act.

1. The permittee shall evaluate potential impacts of the activity on habitats of concern including impacts on tidal passes, bay/sound water quality, oyster producing areas and sediment transport.
2. The permittee shall test sediments to be dredged for oil contamination prior to excavation; no contaminated sediments shall be used construct the barrier berm.
3. The NOD should require coordination throughout and after project implementation between the permittee and the regulatory and natural resource agencies. The permittee shall submit, prior to dredging, a summary plan of the order of intended work and anticipated schedule and duration for each project reach depicted on the permit plats. This information shall be submitted to NMFS and other interested agencies. The permittee shall provide written status and weekly updates during project construction.
4. The permittee shall conduct numerical analyses of potential wave climate changes that may result from excavation of the proposed borrow areas. These analyses shall be conducted using standard coastal engineering methods (i.e., wave refraction/diffraction simulations) and shall assess changes in wave height and direction under various conditions including storm events. Additionally, the applicant shall assess, using current engineering methods, potential changes to adjacent shorelines that may result from predicted wave climate changes. The permittee shall submit both wave climate and shoreline response analyses to NMFS and other interested agencies.
5. No dredging for fill material or equipment access is authorized outside of areas depicted on the May 18, 2010 plats. Use of borrow sites not expressly depicted in the plats is not allowed unless separate authorization is obtained through consultation with the agencies.
6. The permittee shall avoid, to the extent practicable, direct impacts to vegetated wetlands from dredged material discharge/placement.
7. No tracked construction equipment should be allowed on existing islands, shorelines or vegetated wetlands unless approved by the NOD through

coordination with the natural resource agencies. No construction access corridors or pipeline discharge alignments should be across marsh unless approved by the NOD through coordination with the resource agencies.

8. Sediment in the berm that becomes contaminated must be removed and disposed of in a manner consistent with State and Federal law through coordination with those agencies with oversight authority.
9. The permittee shall develop a monitoring plan, in coordination with the natural resource agencies, to assess the adverse impacts of berm construction. Monitoring should include, but not be limited to, evaluation of oil contamination that may develop in borrow sites after excavation, surveying the dispersal of any berm sediment that becomes contaminated, and assessment of the effects of construction activities and berm erosion on infilling tidal passes and marsh. As part of the monitoring plan, the permittee shall provide to the resource agencies copies of pre-construction and as-built plans.
10. The permittee shall develop a post-emergency mitigation plan to ensure that any remaining berm features will not interfere with present and future coastal restoration projects. Such a plan may include removal, degrading, or gapping of remaining berm features.

National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Region

Comments on Louisiana Barrier Island Berms (West)
Provided under authority of the
Endangered Species Act of 1973, as amended

The stated purpose of the proposed berm is to intercept oil coming ashore from the Deepwater Horizon spill. The berm would limit onshore movement of the oil and its contaminants from encroaching into sensitive wetland habitat. As originally proposed by the State of Louisiana on May 11, 2010, sand berms would be constructed seaward of the Chandeleur Islands and also on all the barrier islands from East Grande Terre Island eastward to Sandy Point. Project drawings were revised on May 14, 2010, to include Timbalier Island to East Grande Terre. Additional project drawings were submitted May 18, 2010, along with a request from the State of Louisiana to include restoration work on the Isles Dernieres barrier island chain (west of the original action area) as part of the barrier berm project. As with the previous plan, intermittent openings would be strategically placed to allow water to flow and fish to migrate. The berms would be built onto both existing barrier islands and in shallow waters adjacent to the barrier islands. The berms are intended to present a barrier to landward migration of oil, where it might foul marsh ecosystems and be more difficult, expensive, and time consuming to clean up.

The original project description provided by the COE included construction of a series of berm segments approximately 86 miles long, about 20 feet wide at the top, with a side slope of 25:1, and a height of about 6 feet above mean sea level. The berms are to be constructed at the toe of the existing barrier islands, or in shallow waters adjacent to barrier islands. Cutterhead dredges, hopper dredges, and dredge scows would be used. Sand would be mined from offshore sand sources. Sand mining volume is estimated at approximately 92 million cubic yards (mcy). Construction time was originally expected to be 6-9 months. According to plans submitted on May 18th, the additional berm construction at Isles Dernieres, which includes Raccoon Island, Whiskey Island, and Trinity Island, will require the dredging of an additional estimated 15 mcy of sand, roughly 1 mcy per mile of berm. Based on 92 mcy and 9 months of dredging originally proposed, NMFS estimates that the addition of the Isles Dernieres berm construction will likely add another 1-2 months of full-time dredging with cutterhead and hopper dredges. It is likely that hopper dredges will be utilized, as the sand sources (Ship Shoal and South Pelto) are probably too far offshore to permit cutterhead dredge use.

Based on the new proposal to expand the berm construction to now include the Isles Dernieres, NMFS offers the following comments with respect to potential impacts to protected resources.

In the area of the new work proposed in the Isles Dernieres barrier island chain, which extends the proposed action area westward and farther away from the mouth of the Mississippi River, NMFS' believes the project here is not likely to adversely affect Gulf sturgeon, because this species is typically found east of the Mississippi River. NMFS would expect Gulf sturgeon abundance to be less west of the Mississippi River, so the probability of interactions with hopper dredges would be expected to be slightly less than the probability of interactions east of the Mississippi River. In any event, interactions between hopper dredges and Gulf sturgeon are rare. However, sea turtle abundance in the Gulf of Mexico is likely not significantly different for the Isles Dernieres area compared to the Timbalier to Chandeleur Islands segment. The greatest threat to sea turtles from the entire berm construction project is the use of hopper dredges. Increasing the time the suction dragheads are on the bottom by 1-2 months increases the probability of sea turtle entrainment and take. NMFS recommends the District confer with the Southeast Region, Protected Resources Division, to evaluate the potential for take and the provisions of the Incidental Take Statement under the existing biological opinion for dredging operations in the Gulf of Mexico.



BOBBY JINDAL
GOVERNOR

State of Louisiana

ROBERT J. BARHAM
SECRETARY

DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

JIMMY L. ANTHONY
ASSISTANT SECRETARY

May 19, 2010

Mr. Pete J. Serio, Chief
Regulatory Branch
United States Army Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

RE: *Application Number: Emergency Authorization - Isle Dernieres*
Applicant: Office of Coastal Protection and Restoration
Notice Date: May 18, 2010

Dear Mr. Serio:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the emergency activity referenced notice. Based upon this review, the following has been determined:

The proposed construction of protective berms will take place on the state owned/leased Isle Dernieres Barrier Islands Refuge. LDWF supports the proposal and believes that it may increase island longevity and may reduce the volume of oil that reaches the gulf shoreline.

Detailed specifications and construction activities should be coordinated with LDWF Coastal & Nongame Resources Division personnel.

A review of the Louisiana Natural Heritage Database indicates that several federally listed or state rare species and natural communities are known to occur in the area. These species and communities include sea grass beds, coastal mangroves, brown pelicans, snowy plovers, piping plovers, manatees, diamondback terrapin, sea turtles, seabirds and wading birds.

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact Habitat Section biologist Chris Davis at [REDACTED] should you need further assistance.

Sincerely,

Jimmy L. Anthony
Assistant Secretary

cd/cm

c: Chris Davis, Biologist
Carolyn Michon, Biologist

Quebedeaux, Bobby D MVN

From: Jamie Phillippe [Jamie.Phillippe@LA.GOV]
Sent: Wednesday, May 19, 2010 3:12 PM
To: Quebedeaux, Bobby D MVN
Cc: Chris Piehler; Dwight Bradshaw; Jeff Dauzat; Melvin "Mitch" Mitchell; Tom Killeen; Gary Aydell; _DEQ-BP Deepwater Horizon Oil Spill; Ronnie Bean; Betty Brousseau; Cheryl Nolan; Sanford Phillips; Joseph "Jay" Pecot; Kristi Cantu
Subject: RE: Emergency Authorization Request (Isle Dernieres)
Attachments: COE Letter.pdf; Sand Berm Defense #2 Plats.pdf



COE Letter.pdf
(260 KB)



Sand Berm Defense
#2 Plats.pdf...

Bobby,

DEQ has no objection to this project.

Thanks,
Jamie Phillippe
Louisiana Department of Environmental Quality
401 Water Quality Certifications

-----Original Message-----

From: Quebedeaux, Bobby D MVN [mailto:Bobby.D.Quebedeaux@usace.army.mil]
Sent: Tuesday, May 18, 2010 1:20 PM
To: jim_boggs@fws.gov; Patti Holland (E-mail); Patrick Williams; Richard Hartman; rachel.sweeney@noaa.gov; Ettinger.John@epamail.epa.gov; kbalkum@wlf.louisiana.gov; Karl Morgan; Christine Charrier; Jamie Phillippe
Cc: Duke, Ronnie W MVN
Subject: Emergency Authorization Request (Isle Dernieres)

All,
Emergency authorization is requested by State, see below. Please respond by COB, May 19, 2010. Thanks.
Bobby

Bobby Quebedeaux
Senior Environmental Resources Specialist

U.S. Army Corps of Engineers
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Quebedeaux, Bobby D MVN

From: David Fruge [David.Fruge@LA.GOV]
Sent: Friday, June 11, 2010 5:01 PM
To: Quebedeaux, Bobby D MVN
Cc: Kristi Cantu; Jerry Carroll; Robert Routon; Chris Knotts; Syed Khalil; Maury Chatellier; Richard Raynie; Jerome Zeringue; Steve Mathies
Subject: FW: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to Emergency Request Authorization
Attachments: Composite RESPONSES TO AGENCY COMMENTS isles Dern .docx
Importance: High

Bobby, attached please find OCPR's responses to agency comments on the above Emergency Request Authorization.

Best regards,

Dave

-----Original Message-----

From: Kristi Cantu
Sent: Thursday, June 10, 2010 2:11 PM
To: David Fruge; Syed Khalil; Richard Raynie; Chris Knotts; Jerry Carroll
Subject: FW: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to Emergency Request Authorization

-----Original Message-----

From: Quebedeaux, Bobby D MVN [mailto:Bobby.D.Quebedeaux@usace.army.mil]
Sent: Thursday, June 10, 2010 1:56 PM
To: Kristi Cantu
Cc: Serio, Pete J MVN; Duke, Ronnie W MVN; Mayer, Martin S MVN
Subject: RE: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to Emergency Request Authorization

Kristi,
Yes- extension granted until COB Friday, June 11, 2010.
Bobby

-----Original Message-----

From: Kristi Cantu [mailto:Kristi.Cantu@LA.GOV]
Sent: Thursday, June 10, 2010 1:50 PM
To: Quebedeaux, Bobby D MVN
Cc: David Fruge; Jerry Carroll; Chris Knotts; Syed Khalil; Richard Raynie
Subject: FW: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to Emergency Request Authorization

Bobby,
As per our conversation, I am requesting an extension until COB June 11, 2010.
Sorry for the inconvenience.

Kristi Cantu
Office of Coastal Protection and Restoration (OCPR) Engineering Branch

-----Original Message-----

From: Quebedeaux, Bobby D MVN [mailto:Bobby.D.Quebedeaux@usace.army.mil]
Sent: Tuesday, June 08, 2010 1:01 PM
To: Kristi Cantu
Cc: Serio, Pete J MVN; Duke, Ronnie W MVN; Mayer, Martin S MVN
Subject: RE: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to
Emergency Request Authorization

Kristi,
Yes- deadline pushed to COB Wednesday, June 9, 2010.
Bobby

-----Original Message-----

From: Kristi Cantu [mailto:Kristi.Cantu@LA.GOV]
Sent: Tuesday, June 08, 2010 12:44 PM
To: Quebedeaux, Bobby D MVN
Cc: Serio, Pete J MVN; Duke, Ronnie W MVN; Mayer, Martin S MVN
Subject: RE: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to
Emergency Request Authorization

Bobby,

Is it possible to push this deadline until COB tomorrow, June 9th?

Thanks,

Kristi Cantu
Office of Coastal Protection and Restoration (OCPR) Engineering Branch

-----Original Message-----

From: Quebedeaux, Bobby D MVN [mailto:Bobby.D.Quebedeaux@usace.army.mil]
Sent: Monday, June 07, 2010 4:14 PM
To: Kristi Cantu
Cc: Serio, Pete J MVN; Duke, Ronnie W MVN; Mayer, Martin S MVN
Subject: FW: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to
Emergency Request Authorization

<<Emergency Permit Draft Input to White Paper - Monday 24 Maybaumy (3).doc>>
K <<NOAA comments on Isles Dernieres>> r <<RE: Emergency Authorization
Request (Isle Dernieres)>> i <<Re: Emergency Authorization Request (Isle
Dernieres)>> s <<Emailing: Isle of Dernieres>> t <<Re: Emergency
Authorization Request (Isle Dernieres)>> i <<Sand Berm Defense #2 Plats.pdf>>
, <<COE Letter.pdf>> The Corps has not received a response from you on a
Corps request dated Thursday, June 3, 2010- attached below. Please respond
by COB Tuesday, June 8, 2010 (in order for the Corps to proceed with
processing your original request for emergency authorization of the above

listed proposal).

Alternatively, if you are no longer interested in pursuing this proposed project, please advise. Thanks.

Bobby

-----Original Message-----

From: Quebedeaux, Bobby D MVN

Sent: Thursday, June 03, 2010 8:51 AM

To: 'Kristi Cantu'

Cc: Serio, Pete J MVN; Duke, Ronnie W MVN; Mayer, Martin S MVN

Subject: MVN-2010-01136-WJJ, Isles Dernieres: Agency Comments to Emergency Request Authorization

Kristi,

Attached are the responses from Agencies (NOAA, EPA, FWS, LDWF, LDEQ) from a Corps request to review and comment on "White Paper Emergency Permit Evaluation, Technical Analysis, U.S. Army Corps of Engineers, May 24, 2010" (also attached) with regards to Isles Dernieres proposal. Please review and comment/rebut. Thanks.

Bobby

Bobby Quebedeaux

Senior Environmental Resources Specialist

U.S. Army Corps of Engineers

New Orleans District

Regulatory Branch, Western Section

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RESPONSES TO AGENCY COMMENTS

EMERGENCY AUTHORIZATION REQUEST

ISLES DERNIERES BARRIER ISLAND DEFENSE

June 11, 2010

AGENCY: NOAA, via June 2, 2010, email and attached comments from Miles Croom to Corps of Engineers

RESPONSES TO AGENCY COMMENTS

EMERGENCY AUTHORIZATION REQUEST

ISLES DERNIERES BARRIER ISLAND DEFENSE

June 11, 2010

AGENCY: NOAA, via June 2, 2010, email and attached comments from Miles Croom to Corps of Engineers

Comment 1: Under normal permitting procedures, a project of this scope would likely require full NEPA compliance. NOAA has previously recommended that NEPA analysis for this project and the other segments of the barrier island berm construction project should be combined to facilitate cumulative impacts analysis for the entire barrier island chain. NOAA requests the Army Corps of Engineers express its intention to conduct a full NEPA analysis and draft an Environmental Impact Statement.

Response: There is an urgent need to respond expeditiously to the emergency associated with this massive oil spill; therefore, expeditious fulfillment of NEPA requirements is also needed. Preparation of an EIS for this project does not lend itself to the need for such an expeditious response.

Comment 2: It is unclear whether this is a one-time emergency action or whether the applicant intends to continue to use limited sediment resources to replenish and maintain the berm. Post-emergency expectations regarding possible removal, degradation and gapping are not addressed. It is unclear if maintenance of the berm for the duration of the existing emergency is proposed.

Response: We view sand berm placement as a one-time emergency action. There will be no follow-up placement of sand for berm maintenance. Some reshaping of the berm may occur using in-place material. The duration of the berm will be a function of natural coastal processes and storm events.

Comment 3: The proposed action could result in adverse impacts to essential fish habitat, commercially and recreationally important fisheries, and endangered and threatened species. The proposal lacks sufficient detail to assess or quantify potential impacts. As the permitting process proceeds and if the action is approved, NOAA reserves the right to provide additional recommendations and terms and conditions based on its statutory and regulatory authorities.

Response: The permittee will fully comply with all regulatory requirements including those relevant to the concerns mentioned above.

Comment 4: Direct and indirect impacts to shoreline habitats, consequences of sediment transport, and effects of changes in wave climate have not been determined and could be substantial. Modeling of at least a preliminary scope should be conducted prior to initiating removal of material from approved borrow sites.

Response: The placement of all materials will be coordinated with all regulatory/permitting agencies. It is anticipated that potential wave climate changes due to borrow site excavation will be minimal due to the distance from the coast and the depth of the activities. However, modeling to assess potential effects to the wave climate and sediment transport patterns will be performed. The engineering methods used to establish the location for placement of materials will be made available to all interested agencies.

Comment 5: Concerns regarding the overall timing of implementation and the efficacy of the project include uncertainty in constructing the project in a meaningful time frame and technical concerns regarding constructability and stability of the berm even over short times frames.

Response: We acknowledge those uncertainties. The timing of construction is dependent on several factors, especially the timing of funding that would be required from the responsible party and issuance of needed authorizations/permits. The issues of constructability and stability have been addressed in our previous comments on the currently permitted sand berm projects to the east of this current proposal, and will be further addressed during implementation and monitoring of those already-permitted projects.

Comment 6: Depletion of finite Louisiana sand resources could affect future high priority restoration projects, largely negating the planning efforts of the past two decades.

Response: We fully realize that the Ship Shoal area is an important source of borrow material for future restoration projects, and the impacts of its use for this emergency response project will be considered. However, we believe that the Ship Shoal complex has sufficient amounts of sand to meet the needs of any future restoration projects.

Comment 7: The potential involvement of the applicant may raise uncertainty regarding the party responsible for clean-up, remediation and restoration associated with sediment that may become oiled both in the constructed berm as well as sediment that may become dispersed from

the berm (e.g., in storm events). The state of Louisiana, in its response to agency comments dated May 20, 2010, states its understanding that the U.S. Coast Guard is the responsible party for coordinating the removal of all oil captured by the proposed berm. This assumption must be verified and should be included as a permit provision.

Response: We intend to verify the above assumption and have no objection to its inclusion as a permit condition.

Comment 8: It remains unclear whether the state of Louisiana has provided assurances that it will fund not only the construction of the berm as a mechanism to intercept oil, but will also support follow up work required to monitor construction, collect data to evaluate impacts to habitat and living marine resources, and fund a mitigation and adaptive management plan to ensure resources are restored to pre-spill conditions. Adaptive management should also anticipate future work on other programs ongoing in Louisiana, including CWPPRA, Louisiana Coastal Act, Louisiana Coastal Protection and Restoration, Southwest Louisiana Feasibility Study, Hurricane Damage and Storm Surge Risk Reduction, and other efforts to provide long-term protections and benefits to property, lives, and ecosystem values.

Response: This project will only be constructed if it is funded by the responsible party as a spill-response measure. As with the previously issued sand berm permit, the permittee will adhere to the monitoring requirements of the issued permit for this project. Information obtained from monitoring of permitted sand berm projects to the east of this project will be incorporated into the implementation of this project to the greatest extent practicable. We do not anticipate that the project will have significant adverse effects on ongoing coastal programs in Louisiana.

Comment 9: The state of Louisiana is encouraged to work with the other state and federal natural resource trustees to develop an emergency restoration strategy that is consistent with the intent of the Oil Pollution Act to minimize injury to natural resources and services. An emergency restoration plan may best address the state of Louisiana's goal of reducing impacts to its natural resources and be more responsive to such an unpredictable and dynamic situation.

Response: The state is actively involved with the natural trustee agencies in the ongoing response to this spill, and will continue its cooperative involvement during the various phases of the Natural Resource Damage Assessment process. The proposed project is one of numerous actions advocated by the state to help reduce oil spill-related damages to natural resources and related services in the face of immediate threat from this massive spill. We are always willing to collaborate closely with the other trustees in the development of additional short-term strategies for responding to this crisis in an effective and timely manner.

Comment 10: Understanding the critical nature of the current situation, phased authorization and implementation of the proposed action may be appropriate. This approach would allow immediate action in areas under imminent threat of oiling. Also, phased implementation could provide time to conduct analyses to assess and thereby avoid and minimize potential

geomorphologic impacts and evaluate berm stability issues in a time frame to guide implementation of subsequent segments of the proposed project.

Response: As mentioned above, monitoring will be conducted on the previously permitted reaches of the sand berm project located to the east of this proposal. Due to potential limitations on dredge availability, several of those reaches will be implemented sequentially rather than concurrently. Thus, a phased approach is likely to be a reality for construction of this overall sand berm project. The lessons learned during construction and monitoring of various reaches will thus guide implementation of subsequent reaches, including those associated with the current proposal.

Comment 11: NOAA recommends adding a Special Condition relating to mitigation and adaptive management as noted in our NRDA/Responsible Party comment above. The mitigation and adaptive management plan should be developed in coordination with the state and federal resource agencies, and it should be designed to ensure that any residual berm features will not interfere with present and future coastal conservation efforts or restoration projects. The plan should also address unavoidable impacts caused by berm construction and propose suitable mitigation measures and adaptive management approaches to make the public whole for any loss of ecosystem services and benefits caused by berm construction.

Response: Please reference our response to Comment 8 above.

Comment 12: NOAA recommends adding Special Conditions to address the following Endangered Species Act concerns:

- Any take of species listed under NMFS' purview shall be immediately reported to NMFS at the following e-mail address within 24 hours at takereport.nmfsser@noaa.gov. All animals shall be scanned internally and externally for tags and identifying information included in the take report.
- Any observed carcass shall be secured until appropriate authorities arrive to document stranding. All carcasses shall be scanned internally and externally for tags and identifying information included in the take report.

Response: We have no objection to the recommended special conditions.

Comment 13: Of particular concern is necessity to resolve the Natural Resource Damage Assessment issue of whether this action will qualify as an emergency restoration action, and the resulting position of the responsible party.

Response: The assumption is that the project will be constructed only if funding is provided by the responsible party, that monitoring would be supported by that funding, and that restoration credits will not be sought by the responsible party.

AGENCY: Louisiana Department of Environmental Quality, via June 2, 2010, email from Jamie Phillippe to Corps of Engineers

Comment 1: Monitor borrow sites and the protection berms for the presence of oil. Cease dredging/berm building if oil is present. Remove oil from berms prior to continuing berm building.

Response: We have no objections to these recommendations.

Comment 2: The IC Houma plans to work with this operation to clean as the process proceeds to prevent burial of oil. If oil is buried incidentally, as with tailing accumulation, the island will be remediated after final landfall of all oil related to this incident.

Response: We have no objections to this recommendation.

AGENCY: Louisiana Department of Wildlife and Fisheries, via June 2, 2010, letter from Jimmy Anthony to Corps of Engineers

Comment 1: Filling of existing tidal passes may cause remaining open passes to experience higher volumes of tidal flow and increased tidal velocities during tidal movements and consequently cause increased erosion of adjacent project features and barrier islands. The project should allow for ample tidal exchange at a sufficient number of passes; open areas should be created at existing historic passes in order to save borrow material and not interrupt the existing tidal ebb and flow on which interior marshes, estuarine and marine organisms, and other resources rely.

Response: The intention is to maximize the development of the protective berm by primarily focusing on placing material adjacent to existing and remnant barrier islands. We acknowledge and agree that tidal passes are critical hydrologic features and we are not proposing these be adversely altered with this proposed feature.

Comment 2: Will the protective berm be monitored and maintained at the design elevations permanently or allowed to degrade and subside once the oil spill is no longer a threat to Louisiana's coast?

Response: The protective berm will not be constructed and maintained as a permanent feature. Upon construction completion to the design elevation, the protective berm, in combination with other containment strategies, will be monitored for its effectiveness in keeping oil out of the wetlands areas. Similar to the monitoring plan established for the 6 approved reaches, pre and post-construction surveys will be performed. Dependant upon the length of the oil spill crisis, weather factors, etc., some areas of the berm may require reshaping.

Comment 3: Because of the size of the oil spill, it is possible that the protective berm may be constructed with oil-contaminated sediments. Caution should be used to ensure that oil-contaminated sediments are not placed adjoining existing marsh, barrier islands or barrier shorelines.

Response: Testing for the presence of hydrocarbon contamination will be performed in the borrow areas prior to excavation. The placement site will also be monitored for the presence of oil prior to placing dredged sediment.

Comment 4: The applicant shall identify existing infrastructure, such as pipelines, flowlines and well protection structures, which may potentially be affected by the proposed activity. Project feature design and future maintenance will need to address existing infrastructure.

Response: Agreed.

Comment 5: Prior to construction activities on the Isle Dernieres Barrier Island Refuge, contractors shall coordinate with the Louisiana Department of Wildlife and Fisheries.

Response: Agreed.

Comment 6: The Louisiana Natural Heritage Database indicates the presence of bird nesting colonies within one mile of this proposed project. If the project will be occurring during the nesting season (Feb 16th – Sept 15th) please consult with Michael Seymour, the Louisiana Natural Heritage Program Ornithologist at [REDACTED]

Response: Agreed.

Comment 7: Our Database also indicates that several federally listed or state rare species and natural communities are known to occur in the area. These species and communities include sea grass beds, coastal mangroves, manatees, diamondback terrapin and sea turtles.

Response: If any of the species and communities listed are encountered, the permittee will notify and coordinate with Mr. Michael Seymour at the contact information listed in Comment 6.

AGENCY: Environmental Protection Agency, via June 2, 2010, email from John Ettinger to Corps of Engineers

Comment 1: EPA is concerned that the New Orleans District continues to consider this proposal for emergency authorization, in light of the fact that a permit was issued on May 27, 2010, to the State of Louisiana for construction of six berms in the Chandeleur Islands and Barataria Bay (two berms in the Chandeleur Islands and four berms in area just west of the Mississippi River in the Barataria Bay basin). The premise of that permit was that the berms were to serve as a pilot to determine the effectiveness of this approach in reducing the movement of oil. Upon

evaluation of the pilot berms' oil containment effectiveness it would then be decided if future projects would be warranted. This information is necessary for an evaluation of the effectiveness of this berm technology and design. Until this information is obtained, it is EPA's recommendation that any future berm permit decisions (including this proposal) should either be held in abeyance or the Corps could, pursuant to 40 CFR 230.12 of the CWA Section 404(b)(1) Guidelines, deny the permit proposals without prejudice because of insufficient information to conduct the Guidelines evaluation.

Response: We believe that, as long as the need for emergency response exists, we need to keep all response options open and ready for deployment.

Comment 2: Effectiveness at stopping oil

Response: We acknowledge that this project alone will not stop the intrusion of the oil into interior marshes. However, we believe that the project, in combination with other containment strategies, can significantly reduce inland movement of the spilled oil.

Comment 3: Construction timing

Response: We agree that, in the interim period prior to construction, other response strategies can be applied. However, we still need to aggressively pursue an approach of providing for multiple lines of defense in this long-term response effort.

Comment 4: Protect valued sediments for future coastal restoration

Response: We fully realize that the Ship Shoal area is an important source of borrow material for future restoration projects, and the impacts of its use for this emergency response project will be considered. However, we believe that the Ship Shoal complex has sufficient amounts of sand to meet the needs of any future restoration projects.

Comments 5 and 6: Ensure safe dredged sediments; Planning to address contaminated berm sediments

Response: Testing for the presence of hydrocarbon contamination will be performed in the borrow areas prior to excavation. The placement site will also be monitored for the presence of oil prior to placing dredged sediment. According to the Louisiana Department of Environmental Quality, the Incident Command Center at Houma "... plans to work with this operation to clean as the process proceeds to prevent burial of oil. If oil is buried incidentally, as with tailing accumulation, the island will be remediated after final landfall of all oil related to this incident."

AGENCY: U.S. Fish and Wildlife Service, via June 2, 2010, email from Patti Holland to Corps of Engineers

Comment: Monitor longer than 12 months (three years at least) and language needs to be added to state that they will perform additional work if monitoring indicates the need for adaptive management.

Response: We anticipate implementing a monitoring plan similar to the one included in the permit for the previously approved six reaches.

Quebedeaux, Bobby D MVN

From: Kristi Cantu [Kristi.Cantu@LA.GOV]
Sent: Thursday, May 20, 2010 5:26 PM
To: Quebedeaux, Bobby D MVN
Cc: Steve Mathies; Richard Raynie; Syed Khalil; Jerry Carroll; Maury Chatellier; Kirk Rhinehart; David Fruge
Subject: Response to Agency Comments - Isles Dernieres Berm Defense
Attachments: 5.20.10 Response to Comments (permit 2).pdf



5.20.10 Response
to Comments (...

Bobby,

Attached is a response letter addressing the comments received from LDWF, USFWS, and NOAA regarding the Isles Dernieres Barrier Island Defense project.

Please let me know if you any questions.

Thank you,

Kristi Cantu

Office of Coastal Protection and Restoration (OCPR)

Engineering Branch

[REDACTED]

[REDACTED]

**RESPONSES TO AGENCY COMMENTS
EMERGENCY AUTHORIZATION REQUEST
ISLES DERNIERES BARRIER ISLAND DEFENSE
May 20, 2010**

Preliminary Questions/ Permitting Agency Response

AGENCY: Louisiana Department of Environmental Quality, via 5/19/10 email from Jamie Phillippe, LA DEQ, to Bobby Quebedeaux, Army Corps Senior Environmental Resources Specialist.

Comment: LA DEQ has no objection to this project.

AGENCY: Louisiana Department of Wildlife and Fisheries, Office of Wildlife, through letter dated May 19, 2010 from Jimmy Anthony, Assistant Secretary, to Pete Serio, Chief of Regulatory Branch, New Orleans District, USACE

Comment 1: LDWF supports the proposal and believes it may increase island longevity and may reduce volume of oil that reaches the Gulf shoreline.

Comment 2: Detailed specifications and construction activities should be coordinated with LDWF Coastal & Nongame Resources Division personnel.

RESPONSE: The permittee will coordinate with LDWF personnel regarding plan/specification development and construction activities.

Comment 3: Several federally listed or state rare species and natural communities are known to occur in this area, including sea grass beds, coastal mangroves, brown pelicans, snowy plovers, piping plovers manatees, diamondback terrapin, sea turtles, seabirds, and wading birds.

RESPONSE: All activities associated with the development of the berm will be coordinated with the LDWF and other agencies to address protection of the habitats and species listed above.

AGENCY: U.S. Fish and Wildlife through email dated Wednesday, May 19th, from Brad Rieck, Deputy Field Supervisor, LA Ecological Services Office (USFWS) to Bobby Quebedeaux, Army Corps Senior Environmental Resources Specialist

Comment 1: Avoid impacting the intertidal area so that piping plover foraging habitat remains available. If possible, allow for a 100-foot buffer from the toe of the berm to mean low low water.

RESPONSE: The permittee will seek to maintain a 100-foot buffer from the toe of the berm to mean lower low water. This request will be coordinated with all other regulatory and monitoring agencies.

Comment 2: Keep all construction equipment out of the area from mean low low water to the island dune/vegetation line

RESPONSE: No tracked construction equipment should be allowed on existing Islands, shorelines or vegetated wetlands unless approved by the NOD through coordination with the natural resource agencies. No construction access corridors or pipeline discharge alignments should be across marsh unless approved by the NOD through coordination with the resource agencies.

Comment 3: If solid berm extends for greater than a 6-mile length, post-cleanup gapping should be considered to increase the likelihood of washover events, sand flat creation and restoration of tidal interchange.

RESPONSE: The permittee will consult with USFWS and other agencies as to the strategic gapping.

FURTHER MITIGATION MEASURES:

Comment 4: Minimize the use of the proposed Ship Shoal borrow site, as that shoal has been identified as a borrow site for future coastal restoration projects (LCA and CWPPRA). The Service does not object to the use of the non-restoration project identified borrow areas of Ship Shoal. The applicant should contact the DOI Minerals Management Service for permission to use Ship Shoal as a borrow area.

RESPONSE: MMS has been contacted and the appropriate permits have been filed to utilize borrow areas within their jurisdiction. The Ship Shoal area is an important source of borrow material for future restoration projects, and the impacts of its utilization for this emergency response will be considered. We believe that the Ship Shoal complex has enough sand to meet the needs of any future projects.

Comment 5: The berm should be constructed strategically to intercept oil where it is coming ashore first.

RESPONSE: The purpose of the project is to create a berm as quickly as possible where the approach of oil is imminent. Prioritization will be given to those areas that can be quickly constructed and will intercept oil prior to its migration inland.

Comment 6: Construction should not result in problematic changes in natural sediment transport, fish migration, or salinity regimes.

RESPONSE: The construction will introduce new sediment\ sand into the system and will add to the sediment budget of the barrier island chain. Fish migration and salinity regime impacts should be minimal.

Comment 7: Tidal inlets should not be blocked by the berm. Temporary booms should span tidal inlets to intercept oil.

RESPONSE: Major tidal inlets will not be blocked to ensure proper tidal exchange. The purpose of the project is to create a linear sand berm defense in appropriate areas that will allow for the strategic reallocation of limited boom in tidal inlet areas. Any boom placement will be accomplished by third parties.

Comment 8: To minimize disturbance to colonies containing nesting gulls, terns, and/or black skimmers, the Service typically recommends that all activity occurring within 650 feet of a colonial nest site be restricted to the non-nesting period (i.e., September 16 through April 1). For colonies containing nesting brown pelicans, the Service typically recommends that all activity occurring within 2,000 feet of the nesting colony be restricted to the non-nesting period (i.e., September 15 through March 31). The Service should be notified when colonial bird nest sites are identified, and no activity should occur on the islands within the recommended buffer zones during the nesting season. An observer should monitor each colonial nest site to determine the minimum distance at which construction can occur without disturbing nesting birds. If the recommended buffer restrictions are not feasible or seaward berm construction purposes, the Service should be contacted to assist in the determinations of the maximum distance practicable. If feasible, the alternative of gapping and boom deployment should be investigated in these areas. That distance could be utilized as the construction zone buffer for that nesting area and a boom(s) could be placed in lieu of the berm within that buffer distance until nesting season is complete at which time the berm can be completed. The Louisiana Department of Wildlife and Fisheries' Fur and Refuge Division [REDACTED] may be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies.

RESPONSE: Every effort will be made to prevent adverse impacts to bird nesting colonies. The local LDWF representative will be kept in close contact as work progresses. As stated previously, the actual placement of the berm adjacent to these nesting areas will be coordinated with Mr. Tom Hess in order to prevent adverse effects.

Comment 9: Monitor post-construction and conduct necessary work (e.g., gap installation, localized levee degradation) to minimize any adverse impacts of oil removal work and short-term sediment redistribution.

RESPONSE: The placement and monitoring of the berm during and following construction will be coordinated with all participating agencies.

Comment 10: In general, in order to minimize adverse impacts to piping plover, nesting colonial birds, and the barrier island coastal ecosystem, the applicant should work in collaboration with the Service, NOAA, and USGS to identify beneficial gaps in tidal inlets and along the shoreline to strategically install booms, if they can provide the barrier necessary to stop oil migration.

RESPONSE: The applicant will work in collaboration with the Service and NOAA in the placement of the berm. Close coordination will be maintained with these same agencies to identify beneficial gaps in tidal inlets and along the shoreline to strategically install booms, if they can provide the barrier necessary to stop oil migration. It is understood that the actual placement of boom will be performed by third parties.

AGENCY: National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Region (Comments on Louisiana Barrier Island Berms (West))

General Comments

- The applicant has stated that it estimates that the Barrier Island Defense East plan could be completed in four to six months; no timeline is provided for the current proposed Barrier Island Defense West proposal. NMFS cannot verify the construction time estimates; however, even the rapid completion estimated by the applicant raises concerns regarding the efficacy of the proposed action in sequestering oil that may already have come ashore.

RESPONSE: We understand that some oil may pass the barrier reaches prior to placement of the berm. However, oil is projected to be coming ashore in Louisiana for many months and, possibly, years to come. This massive emergency action will be marshalling the majority of the U.S. large-vessel dredge fleet. The schedule will be dependent upon the movement of the dredges and support vessels to the project. Construction will be expedited by concurrent reach construction.

- During various meetings and teleconferences, the applicant has indicated the project purpose is to construct a temporary near shore berm to prevent or reduce landward migration of oil resulting from the Deepwater Horizon Incident. The anticipated duration of the proposed berm should be more clearly defined.

RESPONSE: The duration of the berm will be a function of natural coastal processes and future storm events. It is understood that the berm will be affected by coastal processes and storms; however, the placement of material adjacent to the islands will introduce new sediment into the system which will increase the island longevity and impede movement of oil beyond the barrier islands to the interior wetlands.

- Cumulatively, the two proposals could use over 100 million cubic yards of high-quality sand for a purpose that has been described as temporary. Given the scarcity of such sediment resources available for coastal restoration, NMFS is concerned the current proposal may not achieve the best use of these limited resources. Some of these sediment sources are currently under consideration for large-scale barrier island restoration under the Louisiana Coastal Area project and the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) program.

RESPONSE: The Louisiana projects within CWPPRA and other programs will be given due considerations in the identification of borrow sources and their use. All appropriate state and federal agencies will be consulted regarding the location, quantities, and quality of material at each borrow source.

- Many of the areas proposed for construction are currently open water, active tidal passes, and are exposed to significant wave energy. NMFS believes that berm construction in many of these areas (i.e., southern Chandeleur Islands, Shell Island Bay, Quatre Bayou Pass, West Belle Pass to East Timbalier Island and east of Trinity Island) is highly unlikely to be achievable, and even if constructed, the anticipated life span would be on the order of weeks to months at best. Additionally, the proposed berms would have a minimal construction profile, the height and width of which is likely to be immediately reduced through material equilibration and settlement. Analysis of the constructability and near term stability of the berm could be conducted by qualified coastal engineers in very short order.

RESPONSE: The placement of all material will be coordinated with all pertinent federal and state agencies. The deeper reaches that provide active tidal exchange will be defined and proper hydrology in the area will be maintained. The intent of this project is to greatly reduce the

number of shallow passes that will allow oil to move into the inland wetlands and minimize the number of deepwater passes so that physical resources can be more efficiently staged to impede encroaching oil.

- The proposed berm would be most stable immediately adjacent to existing intact shorelines. However, many of these areas may already provide some level of barrier protection against encroachment of contaminants.

RESPONSE: We agree. It is not our intent to place additional sediment where existing landscape provides protection from encroachment of oil. These areas will be evaluated prior to construction.

- NMFS' experience with Louisiana barrier island restoration has demonstrated that storm overwash will often transport sandy material landward significant distances (up to 1,000 to 1,500 feet). It appears the more material available on the shore face, the more material will be distributed through overwash processes. Placing large volumes of new, unstabilized material could provide an additional mechanism for distribution of potentially contaminated sediments if weather events produce water levels in excess of the berm height.

RESPONSE: All material being placed by this emergency effort will remain within the barrier island littoral system.

- The applicant has indicated that any oil captured by the proposed berm would be removed, although it remains unclear whether the applicant will serve as the responsible party in this regard.

RESPONSE: It is our understanding that the U.S. Coast Guard is the responsible party for coordinating the removal of all oil captured by the proposed berm.

- It should be clarified with the applicant that the project is undertaken solely as a response effort and that restoration credits are not contemplated. Additional coordination by the applicant with the U.S. Coast Guard and NOAA's Office of Response and Restoration should be required.

RESPONSE: It is understood that this project must be coordinated with the U.S. Coast Guard and NOAA and that restoration credits are not contemplated at this time.

- This proposal, combined with the proposed work to construct berms from Timbalier Island to the Chandeleur Islands, would likely require most, if not all, of the dredging capacity of the nation's fleet of dredge vessels. One consequence of the demand this project would place on the nation's dredging fleet is that it would make it impossible for NMFS to construct either of the two projects funded by the CWPPRA program. Delays caused by lack of dredging capacity would likely result in changed project conditions, increased costs due to project redesign and limited supply of borrow material, and loss of ecosystem benefits to the public from restoring these areas.

RESPONSE: The Louisiana projects in the CWPPRA program will be given due considerations in the identification of borrow sources. All appropriate state and federal agencies will be consulted regarding the location, quantity, and quality of material at each dredge source and will define the priority for the dredging and placement of materials.

Specific Comments

NMFS recommends the following conditions be included in any emergency authorization of the Barrier Island Defense (west) project. These comments are provided under the authority of the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act and the Fish and Wildlife Coordination Act.

1. The permittee shall evaluate potential impacts of the activity on habitats of concern including impacts on tidal passes, bay/sound water quality, oyster producing areas and sediment transport.

RESPONSE: The permittee will fully comply with all regulatory requirements including those relevant to the concerns mentioned above.

2. The permittee shall test sediments to be dredged for oil contamination prior to excavation; no contaminated sediments shall be used construct the barrier berm.

RESPONSE: All sediments will be tested for oil contamination and quality in advance of dredging. It is understood that no contaminated sediments will be used to construct the barrier berm.

3. The NOD should require coordination throughout and after project implementation between the permittee and the regulatory and natural resource agencies. The permittee shall submit, prior to dredging, a summary plan of the order of intended work and anticipated schedule and duration for each project reach depicted on the permit plats. This information shall be submitted to NMFS and other interested agencies. The permittee shall provide written status and weekly updates during project construction.

RESPONSE: The permittee will maintain close coordination with all regulatory and natural resource agencies throughout and following project implementation.

4. The permittee shall conduct numerical analyses of potential wave climate changes that may result from excavation of the proposed borrow areas. These analyses shall be conducted using standard coastal engineering methods (i.e., wave refraction/diffraction simulations) and shall assess changes in wave height and direction under various conditions including storm events. Additionally, the applicant shall assess, using current engineering methods, potential changes to adjacent shorelines that may result from predicted wave climate changes. The permittee shall submit both wave climate and shoreline response analyses to NMFS and other interested agencies.

RESPONSE: The placement of all materials will be coordinated with all regulatory/permitting agencies. It is anticipated the potential wave climate changes due to borrow pit excavation will be minimal due to distance from coast and depth of activities. However, modeling, engineering and analysis of wave alterations and impacts will be performed. The engineering methods used to establish the location for placement of all materials will be made available to all of these agencies.

5. No dredging for fill material or equipment access is authorized outside of areas depicted on the May 18, 2010 plats. Use of borrow sites not expressly depicted in the plats is not allowed unless separate authorization is obtained through consultation with the agencies.

RESPONSE: It is understood that no dredging for fill material is authorized outside of areas depicted on the May 18, 2010 plats.

6. The permittee shall avoid, to the extent practicable, direct impacts to vegetated wetlands from dredged material discharge/placement.

RESPONSE: Placement of materials will be closely coordinated and every effort will be made to avoid direct impacts to vegetated wetlands from dredged materials.

7. No tracked construction equipment should be allowed on existing islands, shorelines or vegetated wetlands unless approved by the NOD through coordination with the natural resource agencies. No construction access corridors or pipeline discharge alignments should be across marsh unless approved by the NOD through coordination with the resource agencies.

RESPONSE: No construction equipment will track on existing islands, shorelines, or vegetated wetlands unless approved by the NOD through coordination with the natural resource agencies and adherence to Louisiana Department of Wildlife and Fisheries requirement for Isles Dernieres Barrier Island Refuge.

8. Sediment in the berm that becomes contaminated must be removed and disposed of in a manner consistent with State and Federal law through coordination with those agencies with oversight authority.

RESPONSE: The permittee will abide by all pertinent state and federal regulations.

9. The permittee shall develop a monitoring plan, in coordination with the natural resource agencies, to assess the adverse impacts of berm construction. Monitoring should include, but not be limited to, evaluation of oil contamination that may develop in borrow sites after excavation, surveying the dispersal of any berm sediment that becomes contaminated, and assessment of the effects of construction activities and berm erosion on infilling tidal passes and marsh. As part of the monitoring plan, the permittee shall provide to the resource agencies copies of pre-construction and as-built plans.

RESPONSE: The permittee will develop a monitoring plan in coordination with the natural resource agencies, to assess the impacts of berm construction. As part of the monitoring plan, the permittee will provide to the resource agencies copies of pre-construction and as-built plans.

10. The permittee shall develop a post-emergency mitigation plan to ensure that any remaining berm features will not interfere with present and future coastal restoration projects. Such a plan may include removal, degrading, or gapping of remaining berm features.

RESPONSE: The permittee shall develop a post-emergency mitigation plan to ensure that any remaining berm features will not interfere with present and future coastal restoration projects.