Appendix G

Responses to Comments

	Original Message From: trentgillham@live.com [mailto:trentgillham@live.com]
1	Sent: Inursoay, June 17, 2010 S:14 PM To: MacInnes, Andrew D MVN Subject: White ditch My name is Trent Gillham and I think that you should do the new diversion project at white ditch, I visit
	 often and enjoy the fishing and would love to be able to go there for a long time. Thank you and please do this. Sent via BlackBerry by AT&T

United States Department of Agriculture

ONRCS

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Natural Resources Conservation Ser 3737 Government Street Alexandria, LA 71302

(318) 473-7751 Fax: (318) 473-7626

June 18, 2010

Mrs. Joan M. Exnicios Chief, Environmental Planning and Compliance Branch Department of the Army New Orleans District, Corps of Engineers P.O. Box 60267 New Orleans, Louisiana 70160-0267

RE: Louisiana Coastal Area-Ecosystem Restoration Project Medium Diversion at White Ditch Plaquemines Parish, Louisiana, and the Draft Environmental Impact Statement (DEIS), entitled Integrated Feasibility Study and Supplemental Environmental Impact Statement

Dear Mrs. Exnicios:

As requested in your public notice correspondence of May 21, 2010, referenced above, the Natural Resources Conservation Service (NRCS) has reviewed the information and offers the following comments.

The DEIS is well-written and generally provides an adequate description of the proposed project, the affected environmental resources, the anticipated project impacts to those resources, and the alternatives considered. NRCS agrees that wetlands in the project area will continue to deteriorate unless preventative measures are taken. The Mississippi River Protection Levee no longer allows the river to overflow its banks into the project area and the introduction of freshwater and sediments from the river have been eliminated. In addition, channels dredged through natural ridges has increased drainage and tidal exchange and exposed the soil to erosive forces. Recently, thousands of acres of vegetated marsh were converted to open water by hurricanes and tropical storms. Those acres are unlikely to recover without cooperative restoration efforts. This project was identified as a Near-term Critical Restoration Feature in the Louisiana Coastal Area (LCA) Ecosystem Restoration Study and NRCS continues to support it.

As described in the provided information, the Corps of Engineers has selected a max 35,000 cubic feet per second (cfs) diversion located just north of Phoenix, Louisiana, as the tentatively selected plan (TSP). The TSP would consist of ten 15-ft by 15-ft by too cuberts with hydrologic operated sluice gates placed in the Mississippi River levee. An outflow channel approximately 7,200 feet long, 545 feet wide, and 16 feet deep would be dredged to carry the flow to Bayou Garelle, which also would be deepened to accommodate the diverted river water. The current operating plan for the TSP is limited to a diversion pulse of 35,000 cfs in March-April of each year, during the normal high flow period of the Mississippi River, and a diversion of 1,000 cfs the rest of the year.

> Helping People Help the Land An Equal Opportunity Provider and Employer

. Mrs. Joan Exnicios Page 2 June 18, 2010

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As you know, NRCS and the Office of Coastal Protection and Restoration (OCPR) are engineering and designing the rehabilitation or replacement of the existing siphon at White Ditch through CWPRA. The White Ditch Resurrection and Outflow Management project (BS-12) also includes an additional siphon of similar size (approximately 250 cfs) to be located south of the White Ditch for a combined total of approximately 500 cfs of river water into the 8,224 acre project area. We anticipate requesting construction funding at the end of 2011.

Initially, it appeared that these projects would overlap and compete at the White Ditch location. However, the TSP (located near Phoenix, Louisiana) and the proposed BS-12 CWPPRA project would be separated by approximately 5 miles and thousands of acres of wetlands. It is likely that freshwater input from these projects would complement each other especially during the majority of the year when the Medium Diversion at White Ditch is flowing at 1,000 cfs. As stated in the DEIS, operations of the Medium Diversion at White Ditch would need to be done in concert with the existing Caernaryon diversion, as well as the proposed BS-12 CWPPRA project to optimize benefits within the Brenton Sound Basin. To avoid any confusion about the location of this project, we recommend including the structure location in the project title. For example, the location could be included at the end in parenthesis "Medium Diversion at White Ditch (Phoenix)."

In addition, NRCS agrees that overtopping of the natural levees or banks of the River aux Chenes is an Ecosystem Constraint that could result in the loss of diversion flows to the Gulf of Mexico. The upper constraint on the size of the flows that can be diverted without overtopping those banks should, therefore, be identified using the best available information and project benefits should be determined accordingly.

Specific Comments on the DEIS

Page 5-7.5-8. and 5-9 Cumulative - The cumulative impacts section in the DEIS for the 5,000, 10,000, and 15,000 cfs diversions all refer to the cumulative impacts of the 35,000 cfs diversion.
 Page 5-9. Section 5.2 Hydrology 5.2.1 Flow and Water Levels under Alternative 4 - The DEIS states that water flow velocities of the proposed 35,000 cfs max diversion would be similar to water flow velocities from the 15,000 cfs diversion due to proposed channel improvements. Because those channel improvements are limited to River aux Chenes and Bayou Garelle, would the numerous other nature and man-made channels receiving diverted water also have similar velocities? Please clarify and include velocity estimates from each of the proposed

NRCS appreciates the opportunity to provide comments on the proposed action and DEIS. If you have any questions or need further information, please contact Britt Paul at (318) 473-7756 or Troy J. Mallach at (337)291-3123.

Respectfully,

Kevin D. Norton State Conservationist

cc: W. Britt Paul, ASTC/WR, SO, NRCS, Alexandria, LA Randolph Joseph, AC, AO, NRCS, Lafayette, LA Troy Mallach, WB, NRCS, Lafayette, LA 1. Concur in Part: The Corps agrees that the naming schemes for each project could cause confusion to those unfamiliar with the project details. However, since LCA authorization is tied to WRDA 2007 which references the project by a specific name, we must keep that naming convention to avoid unnecessary legislative actions that could delay the project. The Corps will begin to anecdotally refer to the LCA project as being located in the Phoenix vicinity when discussing it with the public or other interested parties. The operation of White Ditch will be coordinated with the existing and new CWPPRA projects.

2. Concur: The Corps' preliminary hydraulic modeling of the project area determined that 35,000 cfs approximated the maximum flow that could be introduced to the project area without overtopping the River aux Chenes ridges. During the PED phase, additional survey and hydraulic modeling will be undertaken and these efforts may result in further refinements to the project design or operating plan.

3. Concur: Text has been corrected in the Final EIS.

4. The different diversion alternative sizes would have similar velocities in areas where there are channel improvements to be made. This is a product of planned design. There was a target range of velocity to keep sediments moving while not eroding the existing channels. For the different diversion alternatives, the proposed dredging and excavation of channels was done with this in mind yielding similar velocities for the different size diversions.



-----Original Message-----From: Elizabeth Farizo [mailto:libbyfarizo@yahoo.com] Sent: Friday. June 18, 2010 7:19 AM To: MacInnes, Andrew D MVN Subject: White Ditch Diversion Project My name is Elizabeth F. I live in Plaquemines Parish and am 100% in favor of the White Ditch Diversion project. Thanks for everything you're trying to do!



-----Original Message-----From: Jessica Farizo [mailto:jessicafarizo@yahoo.com] Sent: Friday, June 18, 2010 7:16 AM To: MacInnes, Andrew D MVN Subject: white ditch Hello, my name is Jessica Farizo. I live a few miles below white ditch. I love my home! I am definitely in favor of the white ditch diversion project. Thanks!

-----Original Message-----From: farizosofdavant@aol.com [mailto:farizosofdavant@aol.com] Sent: Friday, June 18, 2010 7:09 AM To: Macinnes, Andrew D MVN Subject: while ditch diversion Andy I am sending this email to you as both a land owner and as a land manager. I personally own property

I am sending this email to you as both a land owner and as a land manager. I personally own property in Plaquemines parish and I know that on the level of a small land owner the only hope that I have to save my property from erosion and subsidence is to support your project at White Ditch/Phoenk. I am also sending this correspondence to give you my opinion on this large diversion project as a land manager for Delacroix Corp. I have watched the property of Delacroix Corp. suffer from many different elements over the past 20 years. Erosion, subsidence and hurricanes are just a few harsh realities. I have also pleaded to many agencies and scientists over the years to place a sediment diversion in this area for almost 20 years. I am 100% in favor of this diversion project in the White Ditch/Phoenks area on the east bank of Plaquemines Parish. I recently attended the State of the Coast conference in Baton Rouge and the science is all there. Without introducing sediment into the marshes they will surely disappear.

Thanks for your efforts and again this is being sent to show you my support for a sediment diversion in the White Ditch/Phoenix area of Plaquemines Parish. Michael Farizo

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----Original Message-----From: farizosofdavant@aol.com [mailto:farizosofdavant@aol.com] Sent: Friday, June 18, 2010 7:08 AM To: MacInnes, Andrew D MVN Subject: white ditch Andy My name is Terri Lynn Farizo and I am sending this correspondence to you as my vote of support for a sediment diversion in White Ditch. I own marsh land in Davant and feel that this type of diversion is necessary to save my property. Terri Lynn Farizo





- The White Ditch diversion should compliment on-going efforts in the Breton watershed,
- Following unfortunate events of the West Bay diversion and subsequent recommendation for closure, we support the proposed "controlled" diversion.
- We believe the proposed project will ensure long-term sustainability of marshes in the Breton basin.

Ducks Unlimited supports appropriate actions and activities that promote the long-term sustainability of coastal wetlands in Louisiana. We recognize full and complete restoration of all coastal wetlands is not likely, but that the dynamic processes that created and shaped the vast wetlands of coastal Louisiana can be restored at a meaningful scale.

Thank you for the opportunity to comment and support this proposed work.

Sincerely,

Curtis R. Hopkins, Ph D Director, Southern Region

cc: Col. Alvin Lee Alan Wentz, Ph D Jerry Holden Bob Dew

Final Integrated Feasibility Study / SEIS

SEMINOLE TRIBE OF FLORIDA TRIBAL HISTORIC PRESERVATION OFFICE TRIBAL HISTORIC PRESERVATION OFFICE TRIBAL OFFICERS CHAIRMAN MITCHELL CYPRESS SEMINOLE TRIBE OF FLORIDA AH-TAH-THI-KI MUSEUM VICE CHAIRMAN RICHARD BOWERS JR. HC-61, BOX 21A CLEWISTON, FL 33440 PRISCILLA D. SAYEN PHONE: (863) 983-6549 FAX: (863) 902-1117 TREASURER MICHAEL D. TIGER Mr. Nathan Dayan U.S. Army Corps of Engineers Planning, Programs, and Project Management Division Environmental Planning and Compliance Branch CEMVN-PD-RS P.O. Box 60267 New Orleans, LA 70160-0267 THPO#: 006202 June 22, 2010 Subject: LCA Medium Diversion at White Ditch, Louisiana Dear Mr. Dayan, The Seminole Tribe of Florida Tribal Historic Preservation Office (STOF-THPO) has received the New Orleans District Corps of Engineers' project notification for the aforementioned project. Due to the fact that the project area is within the geographic area considered by the Seminole Tribe of Florida to be ancestral, aboriginal, or ceded (NHPA 1966, Section b1, and 36 CFR, Section 800.2), the STOF-THPO would like to request a copy of the Environmental Impact Statement for review prior to making any further comment. We thank you for the notification of this proposed project. Please reference THPO-006202 in any future documentation about this project. Sincerely

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What

Direct routine inquiries to:

Willard Steele, Tribal Historic Preservation Officer Seminole Tribe of Florida Anne Mullins Compliance Review Supervisor annemullins@semtribe.com

Ah- Tah- Thi- Ki Museum, HC-61, Box 21-A, Clewiston, Florida 33440 Phone (863) 902-1113 + Fax (863) 902-1117 1. A copy of the DEIS has been sent to the Seminole Tribe of Florida as per their request.

1. Your statement of support is noted.

----Original Message-----From: RMBenge34@aol.com [maito:RMBenge34@aol.com] Sent: Tuesday, June 29, 2010 10:55 AM To: HacInnes, Andrew D MVN Cc: farizosofidavant@aol.com Subject: White Ditch Project Andrew, I am sorry that I was unable to be at the meeting at Phoenix High. That being said, I want to again reiterate the support of the Delacroix Corporation for the proposed 35,000 cfs sediment diversion in the White Ditch area. As you know, I have long been a proponent of getting sediment out of the river and into the marshes. While the Caernaroon Diversion was not designed for sediment, our studies from LSU and ULL have shown that it has provided the marshes with some sediment, enough to basically to offset the subsidence in the area. Certainly a diversion designed for readment, enough to basically to offset the subsidence in the area. Certainly a diversion designed for maximizing the delivery of sediment to the marshes in lower Plaquemines Parish will be a boon for everyone in the fight to save coastal Louisiana. If you send me your address, I will be happy to send a letter on Delacroix Corporation stationery to that affect. Sincerely, Robert "Mike" Benge President Delacroix Corporation 206 Decatur Street New Orleans, LA 70130 PH: (504) 523-2245 FAX: (504) 523-2245 FAX: (504) 583-7821



United States Department of the Interior OFFICE OF THE SECRETARY Office of Environmental Policy and Compliance 1001 Indian School Road NW, Suite 348 Albuqueroue, New Mexice 087104

June 29, 2010



ER 10/476 File 9043.1

Joan Exuicios Chief, Environmental Planning & Compliance Branch New Orleans District U.S. Army Corps of Engineers PO Box 60267 New Orleans, Louisiana 70160-0267

Subject: Draft Supplemental Environmental Impact Statement (DSEIS) for the Medium Diversion at White Ditch, Integrated Feasibility Study, Louisiana Coastal Area (LCA) Ecosystem Restoration, Plaquemines Parish, Louisiana

Dear Ms. Exnicios:

The U.S. Department of the Interior has reviewed the subject DSEIS. The following comments are provided by the U.S. Fish and Wildlife Service and the National Park Service.

Comments Provided by the U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service has reviewed the Pre-Decisional Draft Integrated Feasibility Study and Draft Supplemental Environmental Impact Statement (DSEIS) for the Medium Diversion at White Ditch, Louisiana Costal Area Ecosystem Restoration, Plaquemines Parish, Louisiana, prepared by the U.S. Army Corps of Engineers (Corps). The purpose of that project is to provide additional fresh water, nutrients, and fine sediments to the area between the Mississippi River and River aux Chenes ridge. Diversion of Mississippi River water into the study area will facilitate sediment deposition, increase organic production, increase biological productivity, reduce marsh loss, and improve fish and wildlife habitat. The study area encompasses emergent marsh and shallow open water habitat on the east side of the Mississippi River near the community of Belair, Louisiana. The FWS submits the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended, 16 U.S.C. 1531 et seq.), he Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. (51 et seq.).

The Medium Diversion at White Ditch Project is proposed to be a freshwater diversion from the Mississippi River into an area of marsh that lies east of the Mississippi River near Phoenix,

Louisiana. Alternative plans included diversions ranging from 5,000 cubic feet per second (cfs) to 75,000 cfs. The study area consists of intermediate, brackish, and saline marshes, shallow open water habitat, and low-lying forested ridges. The study area is isolated from Mississippi River and receives little input from the Caernarvon Freshwater Diversion Project. The study area provides habitat for several Federal trust resources including migratory and resident waterfowl, wading birds, shorebirds, and threatened and endangered species.

General Comments

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Overall, we find the DSEIS is adequate in describing the fish and wildlife resources found within the study area and the potential impacts to those resources that would be associated with project implementation. The study area consists of marsh and associated open water areas which provide high quality habitat for a multitude of fish and wildlife species. We are supportive of the features proposed thus far for the tentatively selected plan which would include a 35,000 cfs diversion and associated outfall management features.

Through the FWS's March 2010 Draft Fish and Wildlife Coordination Act Report, the FWS identified a number of project planning and evaluation shortcomings that occurred due to the very compressed project schedule. As a result of those shortcomings, the FWS recommended that further project evaluation work should be conducted to provide a more accurate assessment of project effects. The DSEIS should include Corps responses to those recommendations.

Throughout the DSEIS, reference is made to use of the "Boustany model" to estimate wetland creages under the various alternatives. This model was developed by the U.S. Army Engineer Research and Development Center (ERDC) and Mr. Ron Boustany of the Natural Resources onservation Service. The model should be referred to as the ERDC-Boustany model.

The DSEIS includes a determination by the Corps that this project is not likely to adversely affect any federally listed threatened or endangered species, or their critical habitat. Comments pertaining to the Corps' determination will be provided at a later date as our consultation on impacts to threatened and endangered species will be handled separately.

Specific Comments

Impacts of Alternative Plans - In some instances, it was noted that impacts (i.e., positive and negative) of the alternative plans do not match those reported in the FWS's Draft Fish and Wildlife Coordination Act Report (DFWCAR) (Appendix B). For example, some figures in able 3.8 on page 3-47 are not consistent with those in the DFWCAR. Any inconsistencies hould be resolved.

The following comments are provided specifically for the Louisiana Coastal Area Program: Medium Diversion at White Ditch Monitoring and Adaptive Management Plan (Appendix I).



ages I-9 and I-10, Objectives, Performance Measures, Desired Outcomes, and Monitoring Design - The bold headings under each objective are inconsistent and hard to understand in the 1. Your statement of support is noted.

2. Concur in Part: The document has been revised to change all references to this model to the "ERDC-SAND2 model".

3. Inconsistencies have been resolved where possible. Revised WVA numbers and impacted acres have been included at the end of Appendix B.

4. Your concern is noted. We may revisit the organizational structure and format during plan revision during PED.

Page I-9, Objective 1: Desired Outcome - We recommend adding "excluding tropical storm events" at the end of this sentence. Page I-9, Objective 1: Monitoring Design - Because of the poor resolution of Landsat TM

imagery, we recommend that the planned frequency should coincide with the frequency of DOQQs. If that is not feasible, we recommend decreasing or eliminating the use of the Landsat TM imagery and increasing the use of DOQQs.

Page I-9, Objective 1: Supporting Information Need - The intent to establish finfish and shellfish trends from sampling data is not directly related to the objective of maintaining marsh acreage. We suggest that fishery sampling be addressed under a separate objective. In terms of the information provided related to the fishery sampling effort, no time frame (e.g., pre-construction or post-initiation of operations) is provided. The description of this effort should also include a list of the various analyses that would be done.

Page I-9, Objective 2: Monitoring Design - It appears that stations would be sampled 3 years prior to project completion and 10 years post-construction. However, it is indicated on page I-12 that "Vegetation sampling will occur annually at the nine hydrology sites (above), beginning 3 years prior to anticipated project construction completion." We recommend clarifying the sentence on Page I-9 to prevent further confusion to state "annually for 10 years post construction." If that is not the case, the frequency of sampling is extremely inadequate to provide meaningful data to support adaptive management and we recommend increasing the sampling to every year.

Page I-9, Objective 2: Risk Endpoint - It is unclear why "nutrient loading" is mentioned. Please clarify, refer to the section that discusses it in greater detail, or address it under a section on water quality.

Page I-9, Objective 2: Desired Outcome and Monitoring Design - It is unclear what the adaptive management recourse is for the occurrence of reduced belowground biomass. Our concern is that the diversion may be closed while the inevitable temporary occurrence of reduced belowground biomass exists. We agree the resistance of marsh to a storm is dependent on the belowground biomass and soil strength (excluding storm intensity). However, marshes enhanced by the diversion may have a temporary reduction in belowground biomass while mineral sediments are being added. This is a temporary condition that must occur for an area to begin conversion to a marsh with more mineral content. Post hurricane shearing effects have occurred in areas of the coast regardless of freshwater input such as the Atchafalaya Delta, the Caernarvon

Diversion outfall area, southwest Louisiana, and in the River aux Chenes area. Although

shearing effects are evident in areas influenced by diversions, reduced belowground biomass may not be the primary reason shearing has occurred. Even if diversions do temporarily

contribute to reduced belowground biomass, we believe the overall benefits will outweigh any impacts. Because this issue is still very uncertain, we recommend that monitoring of belowground biomass not be used as an adaptive management parameter.

Page I-10, Objective 2: Desired Outcome and Monitoring Design: - It is expected that the

diversion will expand the growth of water hyacinth and other floating aquatics in the fresh and intermediate portions of the project site. While water hyacinth is a nuisance in waterways (both

to flow and navigation) and can impact the growth of submerged aquatic vegetation, they do

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5. Concur. Text added.

6. Response: The AM Framework Team believes that the use of Landsat Imagery is an appropriate method for monitoring this objective. The utilization of Landsat imagery is proposed primarily due to the frequency of collection (up to six times per year), and for cost efficiency. DOQQs do provide better spatial resolution, however collection of DOQQs at more frequent time intervals may be prohibitively expensive. The belief that Landsat images do not show changes well is debatable. Spectral and temporal resolution of these Landsat data actually provide the opportunity for change detection techniques which may not be possible with DOQQs. Additionally, the next satellite in the Landsat Program, scheduled for launch in December 2012, will carry a panchromatic band at 15m spatial resolution. This band enables panchromatic sharpening of the other 8 spectral bands, providing the value of increased spectral resolution, while improving the spatial resolution.

7. Response: In preparation of the Fisheries sections, the best available data was used to develop the existing conditions analysis. Based on the analysis, best professional judgement was used to define the predicted impacts. During PED, ECO-SIM models will be used to further analyze the predicted effects of the project on fisheries resources, including commercial species such as oysters. If impacts are significantly different that those described within this document, then a NEPA document may be prepared as appropriate. Although fisheries resources were not considered in the objectives of the project, these populations may be monitored before and after project completion. Since the primary objective of the project is marsh creation and restoration of natural deltaic processes, the results of fisheries monitoring will not necessarily influence the operational regime of the structure.

8. Response: We concur. Language was changed to clarify that vegetation sampling will be performed yearly beginning in PED for two years, during three years of construction, and ten years post construction.

9. Concur. Language revised to better reflect the concern over excess nutrients. Definition of risk endpoint and other applicable AM terms have been added to section 4.2.

10. Response: The LCA AM Framework team agrees with your concern and explanation. The effects of freshwater, sediment, and nutrient inputs from diversions on below ground biomass is debated in the scientific literature. The White Ditch Diversion project yields an opportunity to more closely examine this relationship. Although data gathered on below ground biomass may inform diversion operations, that data will not be the only data utilized to inform decisions on diversion operations. This issue will be more closely investigated during the plan revision during PED. As previously stated in the response to Page 1, Section 1,the USACE and State will continue to coordinate with federal agencies during the PED plan revision to address this issue.

11. Response: The AM Framework Team understands and agrees with many of the concerns relating to water hyacinth and believes this is primarily an O&M issue. However, the PMs do not believe eliminating this monitoring is a valid option due to intense public concerns over water hyacinth. This issue can be further discussed and refined during the plan revision in PED.

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serve to capture sediment, strip nutrients, and provide a detrital support function for the aquatic food web. Preventing the expansion of floating aquatic vegetation may not be possible without the use of chemical/biological controls or closing the diversion to allow salt water to move inland and reduce their growth. Monitoring of water hyacinth can also be problematic as rafts shift with wind and tides. Therefore, we are not in favor of monitoring the abundance of floating aquatic vegetation to determine diversion operation.

<u>Page 1-10. Objective 3</u> — This objective indicates that sediment inputs into the project area should be equivalent to an average of approximately 1,328,580 cubic yards of sediment per year. We recommend this objective be revised to indicate that sediments should be distributed through the marsh to maximize sediment retention. Work conducted by Ms. Yvonne Allen with the Corps' ERDC and Mr. Eric Glisch with the Corps MVN utilized satellite signatures and gauge data to identify flow routes and flooding regimes in the Atchafalaya River Basin and the Breton Sound Basin. We recommend including their methods to supplement any analysis conducted to identify areas not receiving flow and potentially modify outfall management features.

Page I-10, Objective 3 – This objective should be two separate objectives. One objective should address the amount of sediment delivered to the project area, while the other should address whether accretion (and maybe changes in below ground biomass) is sufficient to offset subsidence and sea level rise.

Page I-12. Section 4.2.1 Monitoring Procedures, Fisheries – Fisheries monitoring in the study area should be used to assess diversion impacts on the production and distribution of oysters, white and brown shrimp, blue crab, and finish. Existing fisheries monitoring by the Louisiana Department of Wildlife and Fisheries (LDWF) in Breton Sound should be expanded into the study area to maintain consistency in protocols, gear types, and frequency of samplings. We recommend coordinating with the LDWF as soon as possible to develop a monitoring plan. We also recommend expanding LDWF alligator nesting surveys in the study area as well.

We recommend adding monitoring objectives and designs specific to evaluate fishery productivity, dissolved oxygen, soil stability, and phytoplankton impacts. The dissolved oxygen and phytoplankton sampling should be at least three years pre-construction and five years postconstruction and include the months of February-July. Samples should be taken every two weeks and include several points throughout the Breton Sound estuary. For monitoring soil stability, we suggest utilizing methods employed by Dr. Chris Schwarzenski in the Caernarvon Diversion outfall area.

Two diversion projects authorized under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) are currently proposed to divert Mississippi River water into the study area. The White Ditch Diversion Resurrection and Outfall Management Project, sponsored by the Natural Resources Conservation Service (NRCS), will divert approximately 500 cfs into the study area near the community of Belair, Louisiana. That project was authorized for engineering and design in 2005 and hydrologic modeling is being conducted to determine project effects in the study area. In addition, the Bertrandville Siphon Project, sponsored by the Environmental Protection Agency (EPA), would divert a maximum of 2,000 cfs into the upper portion of the study area near the community of Bertrandville, Louisiana. We recommend close coordination with the NRCS, EPA, and Louisiana Office of Coastal Protection and Restoration

in the development of all diversion projects proposed within the study area.

12. The 1,328,580 cubic yards of sediment represents an approximated threshold required to meet LCA Program goal of "No Net Loss". It is the approximate minimum amount of sediment needed to offset the current rate of relative sea level rise. Identification of this minimum and clear establishment of it as a goal was necessary to facilitate the decision on overall size of diversion structure and capacity of the outfall canal. The issue of sediment distribution within the marsh is a related but distinctly separate topic. The methods described in the comment will be considered as potential monitoring methods for adaptive management purposes during the PED phase. The Objective will not be revised. The LCA AM Framework team agrees that these types of analyses could be valuable. These analyses are complicated, but not impossible, for project areas obscured by vegetation structure. Because Landsat imagery is already proposed for utilization in this monitoring and adaptive management plan, this additional information can be easily evaluated relatively economically. If the PDT determines this information is necessary, then it can be added during plan modification during PED.

13. The 1,328,580 cubic yards of sediment represents an approximated threshold required to meet LCA Program goal of "No Net Loss". It is the approximate minimum amount of sediment needed to offset the current rate of relative sea level rise. Identification of this minimum and clear establishment of it as a goal was necessary to facilitate the decision on overall size of diversion structure and capacity of the outfall canal. The amount of sediment required is directly related to relative sea level rise and the 2 cannot be separated. The objective will not be split.

14. Response: This supporting information need was eliminated because it does not directly relate to Objective 1. In discussion with the PM, changes in fish and wildlife resources are not a project objective, and therefore it is not necessary to monitor fish and wildlife. This additional monitoring can be reconsidered during PED.

15. See response to comment #14 above.

16. Concur: Both CWPPRA projects have the potential for overlap with the LCA project. Close coordination is necessary to ensure each project is developed properly and is consistent with the most probable outcomes for future-without-project conditions. The LCA team will engage NRCS and EPA to give them an update on the LCA project. Should you have any questions regarding comments from the FWS, please contact Kevin Roy of the FWS's Lafayette Field Office at 337/291-3120.

Comments Provided by the National Park Service

The NPS welcomes this opportunity to cooperate with the United States Army Corps of Engineers (USACE) and the Louisiana Coastal Protection and Restoration Authority in evaluating the proposed Louisiana Coastal Area (LCA) Ecosystem Restoration program.

General Comments

In light of the recent and on-going Deepwater Horizon Mississippi Canyon 252 oid discharge into the Gulf of Mexico, and its short- and long-term effects on the shore and wetlands this project involves, the project should not go forward unless, and until, the oil discharge has been stopped and a re-assessment of its known and likely effects can be performed. Given this unanticipated event, it cannot be known at this time whether the proposed project will have a net positive or negative effect on both White Ditch and the broader LCA effort.

Specific Comments

Main Report

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effect.

Page 4-21, Section 4.2.12.2, Cultural and Historic Resources, Existing Conditions

We are concerned with the statement in Section 4.2.12.2 that Fort de la Boulaye National Historic Landmark (NHL) is not within the Area of Potential Effect (APE). The DEELS states that the site (16PL27) is not located as it is shown on Louisiana State Division of Archeology records, but provides no documentation to support this assertion, nor a record of concurrence by the Louisiana Division of Archeology and by the National Park Service.

Current NPS documentation for Fort de la Boulaye locates the site on or near the Joe Gravolet Canal, the entire length of which lies within the project boundary as identified in Figure 1.1 in the DSEIS. If the USACE has information to the contrary, that information should be shared with the Louisiana State Historic Preservation Office (SHPO) which can then work with the NPS to determine its accuracy. In the absence of this documentation, project planning must assume that the NHL is present. Pursuant to Section 110(f) of the National Historic Preservation Act (NHPA), and 36 CFR 800.10(a), the USACE must, "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark." 36 CFR 800.10(c) requires that the Secretary of the Interior be notified of any consultation involving an NHL and to invite the Secretary to consult if there may be an adverse

The DSEIS refers to "ongoing" consultation with the NPS regarding this project. However, no documentation is provided that supports this statement. We are unaware of any ongoing consultation with NPS beyond what is being initiated through these comments.

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17. Non-Concur: Despite the significant impacts that could occur to the coastal wetlands of Louisiana due to the BP oil spill, it is not recommended that restoration projects be put on hold indefinitely until a damage assessment can be made. The problems facing coastal Louisiana have not changed since the spill and the LCA White Ditch recommended plan offers tremendous flexibility for operation depending on the needs of the estuary. Coastal restoration efforts must proceed ahead as quickly as possible to design and construct features and get them operational. Time lost due to a re-analysis of spill effects will only prolong the construction of restoration features.

18. The Corps is working with the National Park Service to delist this property and is currently waiting for direction from NPS. The evidence we are using is contained in a report titled *Archaeological Research t Locate and Identify the French "Fort on the Mississippi" 16PL27* (1700 -1707), Plaquemines Parish, Louisiana.

19. See above response.

20. Consultation on this issue begin with the DEIS and coordination has occurred since.

In addition, this section discusses the evaluation of three prehistoric sites, 16PL15, 16PL16 and 16PL25, for potential eligibility to the National Register of Historic Places (NRHP). The discussion indicates two of the sites, 16PL15 and 16PL25 were found to be not eligible for inclusion to the NRHP. Site 16PL16 was not evaluated because of its location outside the APE. However, the DSEIS fails to provide documentation with the Louisiana SHPO of their concurrence with these findings.

We appreciate the opportunity to provide comments on the subject document.

Sincerely,

Monier Stephen R. Spencer

Stephen R. Spencer Regional Environmental Officer

6

cc: U.S. Environmental Protection Agency, Dallas, TX Attr: Barbara Keeler NOAA's National Marine Fisheries Service, Baton Rouge, LA Attr: Mr. Richard Hartman Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA Attr: Mr. Kyle Balkum Louisiana Department of Wildlife and Fisheries, Natural Heritage Program, Baton Rouge, LA Louisiana Office of Coastal Protection and Restoration, Baton Rouge, LA Attr: Renee Sanders 21. SHPO has until July 25 to respond to our determination of effect and eligibility. Recent conversations with SHPO indicate that there will be no problem.

(Letter from SHPO dated 21 July 2010 concurred with the findings of the cultural resources report is reproduced at the end of this appendix)



United States Department of the Interior FISH AND WILDLIFE SERVICE 646 Cajundome Blvd. Suite 400 Lafayette, Louisian 70506 July 1, 2010



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

Dear Colonel Lee:

Please reference the letter and attached Biological Assessment (BA) dated May 14, 2010, sent by Ms. Sandra Stiles, Acting, Chief of your Environmental Branch requesting our concurrence with your determination of effects of the proposed Medium Diversion at White Ditch to the endangered pallid sturgeon (*Scaphirynchus albus*). You have determined that the project is not likely to adversely affect this species. The Fish and Wildlife Services (Service) comments are provided in accordance with Section 7 of the Endangered Species Act (87 stat. 884 as amended; 16 U.S.C. 1531 et seq.).

The proposed project involves the construction of a medium sized (up to 35,000 cubic feet per second [cfs]) freshwater diversion located between River Mile (RM) 64.5 and RM 59.8 for the purpose of restoring freshwater flow into a portion of the Breton Sound Basin. The proposed operating plan has the diversion operating at full capacity during the high-water period between March and April and at a lower (1,000 cfs) capacity during the rest of the year. Informal consultation between the US Army Corps of Engineers (Corps) and the Service has been ongoing since 2008; however, no coordination has been conducted for the proposed project.

According to your BA pallid sturgeon are known to become entrained by diversions. In 2008, 14 pallid sturgeon were entrained with the opening of the Bonnet Carre Spillway (RM 129) and at least one pallid sturgeon has been entrained in the Davis Pond Freshwater Diversion (RM 118). The Corps concluded that the Medium Diversion at White Ditch may affect, but is not likely to adversely affect the pallid sturgeon.

The Service cannot concur with the Corps conclusion for the following reasons:

One of the Corps research units, the Engineer Research and Development Center (ERDC), has been sampling in the lower Mississippi River since 2001; unfortunately, a more robust sampling effort has not occurred in the RM 0-70 reach (i.e., 21 trotline sets for RM 0-70 versus 150 sets for RM 100 - 200). We do not believe that this represents enough effort to have effectively sampled this section of the river to give us an adequate assessment of the abundance of pallid sturgeon in this river reach. Because pallid

sturgeon are generally considered a rare species additional sampling would be needed to estimate their abundance within this reach. ERDCs data, as presented in the BA, also suggests higher ratios of pallid sturgeon to shovelnose sturgeon in the lower river reaches. While the sampling gears utilized target certain life-stages they did not target all life-stages (i.e., larvae, post-larvae).

The weaker swimming ability of young sturgeon is mentioned in the BA, but the possible effects of the diversion on those life stages were not addressed. Furthermore, the number of young-of-year (YOY) sturgeon captured by trawling between RM 0 and RM 100 is similar to the number of YOY caught in the adjacent upstream reach (RM 100 - 200). The velocities associated with the diversion could entrain juvenile sturgeon that are within the vicinity of the structure.

While sturgeon spawning locations have not been determined, potential spawning habitat has been identified in the Lower Mississippi River. Based upon current velocities during the spawning season it is possible that larvae could be carried downstream to the proposed project location and become entrainment.

As presented in the BA, ERDC's data demonstrates that sturgeon densities decrease in the Mississippi River in a downstream progression, however, it has been noted that river sturgeon could be found as far south as the Delta National Wildlife Refuge (approximately RM 3). The Service agrees that the number of pallid sturgeon using this lower reach are small compared to upstream reaches, but based on the limited sampling we cannot say with certainty that sturgeon are at such low numbers that the likelihood of entrainment is insignificant or discountable. Therefore, the level of take needs to be determined and an incidental take statement is needed. This can only be done through formal consultation.

In order to ensure compliance with the Endangered Species Act, and because the Service does not believe sufficient information was provided in the BA to discount the possibility of take, the Corps should initiate formal consultation with the Service regarding the proposed project.

Accordingly, the following information will be required to initiate consultation:

 The distance and velocity of flow fields extending from the structure into the river should be determined, if feasible. This determination should be done at the proposed discharges (and various structure openings to achieve those discharges) to determine potential entrainment throughout the diversion's operation.

2) Data gathered at existing diversions by the Service's Baton Rouge Fish and Wildlife Conservation Office and by Nicholls State University was not examined in the BA. That information should be provided in a format (including plates showing locations) so that the timing and location of sampling efforts and of any sturgeon captured and their movements can be examined in detail. The size of sturgeon captured should also be provided. 1. Concur: Formal consultation has been initiated with the USFWS. CEMVN letter requesting the initiation of formal consultation was submitted on July 15, 2010. USFWS response letter starting formal consultation was received on July 16, 2010.

3) Sampling data from the Mississippi River, especially from the lower two reaches (RM 0 to 70 and RM 70 to 100), should be provided in a format (including plate showing locations) so that the timing and location of sampling efforts and of any sturgeon captured can be examined in detail. The size of sturgeon captured should also be provided.

4) Justification (e.g., geomorphic, hydrodynamic, substrate) should be provided for the division of the river into the 3 different sampling reaches.

5) Calculate the average area of opening of the structure for flows of 1,000 cfs and 35,000 cfs as would vary with river stages throughout the year and an estimate of the number of days the structure will be at those areas based on the river's hydrograph.

6) Compare the above calculated (Number 5) average area of opening throughout the year with the Mississippi River channels cross sectional area at the proposed diversion location.

7) Compare main channel flow (cfs) to water diverted (cfs) to calculate percent of latitudinal flow diverted.

 Provide a final copy of the Scope-of-Work (SOW) that details sampling design, techniques, and calculation of catch-per-unit-effort.

9) A detailed and current description of the proposed project (i.e., selection of a single project location) including a plat depicting the precise location and dimensions and a cross-section showing the bottom elevations of the structure and outfall channel.

The formal consultation process for the project cannot begin until we receive the above information, or a statement explaining why that information cannot be made available. We will confirm our receipt of that information; our notification letter to you will also outline the dates within which formal consultation on the proposed action should be complete and our biological opinion delivered.

Section 7 of the ESA allows the Service up to 90 calendar days to conclude formal consultation with your agency and an additional 45 calendar days to prepare our biological opinion. As a reminder, the ESA requires that after initiation of formal consultation, the federal action agency may not make any irreversible or irretrievable commitment of resources that limits future options. This practice insures agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered and threatened species or destroying or modifying their critical habitats. If you have any questions or concerns about this consultation or the consultation process in general, please feel free to contact David Walther of this office at 337/291-3122.

Sincerely,

James F. Bogg Supervisor Louisiana Field Office

cc: FWS, Ecological Services, Jackson, MS FWS, Fish and Wildlife Resource Office, Baton Rouge, LA ERDC, Vicksburg, MS LDWF, Natural Heritage Program, Baton Rouge, LA OPCR, Baton Rouge, LA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

JUL 0 1 2010

Colonel Alvin B. Lee New Orleans District U.S. Army Corps of Engineers P.O. Box 60267 New Orleans, LA 70160-0267

Dear Colonel Lee:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) Region 6 has reviewed the Corps of Engineers (Corps) May 2010, draft Supplemental Environmental Impact Statements (DSEISs) for the following four Louisiana Coastal Area (LCA) projects: Small Diversion at Convent/Blind River; Convey Atchafalaya River Water to Northern Terrebone Marshes and Multipurpose Operation of Houma Navigation Lock; Medium Diversion at White Ditch; and Amite River Diversion Canal Modification. With this letter and enclosed Detailed Comments, EPA offers integrated ratings, comments, and recommendations on these DSEISs.

EPA greatly appreciates the Corps' ongoing interagency collaboration on the LCA program. Such teamwork is essential for leveraging and maximizing the resources available to address the pressing coastal issues facing Louisiana. EPA fully recognizes that the Congressionally-mandated timelines for the subject LCA studies, combined with the many other priority projects the Corps is engaged in place pressure on personnel and resources available for data gathering and analysis. While these factors have affected the rigor of analysis for the LCA studies, such shortcomings are to some extent mitigated by the fact that the subject projects tier from planning and analysis in the LCA programmatic EIS (2004) and in related coastal restoration efforts such as the Coastal Wellands Planning, Protection, and Restoration Act.

EPA's comments are intended to help address remaining information gaps while striking a balance with the need to move forward expeditiously with coastal restoration projects in Louisiana. EPA is cognizant that uncertainty with major variables (particularly future relative sea level rise) hampers the ability to accurately predict the impacts and effectiveness of these and other coastal restoration projects. Robust monitoring and adaptive management programs are, therefore, essential. EPA also notes that unlike a new cross-basin levee or other large-scale artificial manipulation of the coastal landscape, these restoration projects generally attempt to mimic natural processes. Thus, the potential environmental downsides of proceeding with coastal restoration projects based on imperfect knowledge are generally more acceptable than would be the case for projects that pose significant potential adverse environmental impacts.

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EPA Region 6 rates the four DSEISs as follows:

 Small Diversion at Convent/Blind River: "EC-2". (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)

2

- Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock: "EC-2". (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)
- Medium Diversion at White Ditch: "EC-2". (EPA has environmental concerns and requests additional information in the Final Supplemental Environmental Impact Statement.)
- Amite River Diversion Canal Modification: "LO". (EPA's review has no objections and has not identified any potential environmental impacts requiring substantive changes to the preferred alternative.)

EPA continues to support the LCA program as an important step toward greater efforts to restore some semblance of sustainability to parts of coastal Louisiana. To that end, it is important to reiterate that the LCA program in general and these projects in particular represent near-term measures, and should not be mistaken for the larger and more comprehensive effort needed to address coastal wetland loss in Louisiana on the scale and scope warranted. The ongoing oil spill in the Gulf of Mexico and its impacts on Louisiana's valuable coastal wetlands and aquatic resources only underscore this point. Nevertheless, these and other LCA projects can be viewed as stepping stones toward larger and more aggressive projects, and offer valuable learning and adaptive management opportunities that will help in that regard.

The proposed White Ditch project represents the largest and most ambitious use of seasonal, high-river "pulsing" as a technique to increase the environmental benefits of diversions, while reducing potential impacts to existing fisherics. Of the four LCA projects discussed herein, the White Ditch diversion offers the greatest promise for coastal restoration benefits and advancing larger-scale projects. EPA also notes that the Amite River diversion canal gapping project and the proposed Convent/Blind River diversion are not mutually exclusive and could work in concert with the proposed LCA Hope Canal diversion. Although the Blind River/Convent diversion is further along in the NEPA process than Hope Canal, the latter offers a superior opportunity to address ecosystem needs in the Maurepas Swamp. Again, while these projects are not mutually exclusive, EPA encourages expedited implementation of the Hope Canal diversion. Finally, given the relatively high cost to environmental benefit ratio, EPA would not place a high priority on implementation of the Kope Canal diversion. 1. Scoring noted. Additional information has been provided in the Final SEIS.

2. Your statement of support is noted.

3. Concur.

EPA appreciates that the Corps recognizes the need to monitor the extent to which the ongoing oil spill could affect study areas and aquatic resources covered by these four projects. It currently appears unlikely that the oil spill would directly affect the two proposed projects in the Maurepas Swamp, but the study areas for the other two projects have already or could be impacted by the spill. Accordingly, the Corps needs to be prepared to modify and/or further expedite such projects as needed, and perform supplemental environmental analysis where warranted.

3

The schedule and resource constraints discussed earlier have also affected EPA's ability to fully engage in the interagency development and review of these four LCA projects. EPA greatly respects the views of our state and Federal partner agencies with responsibilities and expertise pertaining to fish and wildlife impacts. EPA will defer to some extent to the recommendations of the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Louisiana Department of Wildlife and Fisheries on any additional information and analysis needed for resources within their purview. EPA encourages the Corps to fully address any such needs identified by these agencies.

Moving forward, we would also point out the connection between the ongoing LCA effort to develop near-term restoration projects and the interagency effort to prioritize and expedite coastal restoration projects pursuant to the March 2010, Roadmap for Restoring Ecosystem Resiliency and Sustainability (Roadmap). The interagency process initiated by the Roadmap provides a valuable opportunity to identify the most promising LCA projects and focus limited resources to ensure that such projects are constructed in a timely fashion.

EPA appreciates the opportunity to review the DSEIS's. If you have any questions about the 309 Review Process, please contact Michael Jansky of my staff at (214) 665-7451 or by e-mail at <u>jansky michael@epa.gov</u>. If you questions or wish to discuss the technical aspects of our comments, contact John Ettinger at (504) 862-1119. Please send our office two copies of the Final SEIS when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20460.

Sincerely yours Cathy Gilmore Chie Office of Planning and Coordination 6ENXP

Enclosure

DETAILED COMMENTS

ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENTS FOR THE SMALL DIVERSION AT CONVENT/BLIND RIVER; CONVEY ATCHAFALAYA RIVER WATER TO NORTHERN TERREBONNE MARSHES AND MULTIPURPOSE OPERATION OF HOUMA NAVIGATION LOCK; MEDIUM DIVERSION AT WHITE DITCH, AND AMITE RIVER DIVERSION CANAL MODIFICATIONS FOR THE LOUISIANA COASTAL AREA

COMMENTS

1. Small Diversion at Convent/Blind River DSEIS, May 2010

In general, additional freshwater and sediments to Maurepas Swamp provided by the proposed diversion is positive for the swamp. A potential downside to diverting existing surface waters and sediments is pollutants in the diverted water could impact the Blind River and Lake Maurepas. While such concerns are manageable, EPA would recommend additional information and analysis pertaining to water quality.

The 2001 Diversion into the Maurepas Swamps study by Lee Wilson & Associates, as well as Batelle's Assessments of Ecological Risks of Contaminants from a Proposed Reintroduction of Mississippi River Water into Maurepas Swamp (Phase I and II, 2005 and 2008, respectively), are cited as support that long term adverse impacts to water quality in the Maurepas Swamp, the Blind River, and Lake Maurepas are not anticipated. Unfortunately, the study area for these documents appears limited to the LCA Small Diversion at Hope Canal project area. While these assumptions may be applicable to a single 1500 cfs diversion, the application of these assumptions to a project diverting twice the amount of water (as in Small Diversion at Convent/Blind River) must account for the difference in scope. EPA notes, however, that if the diverted water flows through the swamp rather than directly to the Blind River and Lake Maurepas, and if the area of swamp is sufficient to reduce pollutants adequately, then this may not be a significant concern.

The LCA Ecosystem Restoration Study Programmatic EIS (2004) recognizes these concerns and suggests that the LCA Plan needs to consider other activities, initiate an aggressive coordination plan with the stakeholders involved, and ensure that all activities including the LCA Plan complement each other. EPA recommends that use of studies for support of these projects acknowledge the limitations and applicability. Additionally, it is suggested that cumulative effects determinations clarify if the assumptions stated are applicable to an existing baseline with no Maurepas Swamp projects other than the single proposed project, or that the cumulative effect includes the additive effects of all related Maurepas Swamp projects.

There is likely continued interest on the part of some landowners to log cypress in the Maurepas Swamp. Given the degraded state of the swamp throughout much of this area, there is a high risk that any such logging would be unsustainable. Such logging could conflict with or undermine this and other proposed restoration efforts for the Maurepas Swamp. Accordingly, this project should include as a non-structural measure a commitment to full and effective enforcement of Clean Water Act Section 404 and/or Section 10 of the Rivers and Harbors Act as such laws pertain to logging, particularly where unsustainable.

2

The ongoing Corps of Engineers West Shore Lake Pontchartrain Hurricane Protection Study is reviewing different levee alignments in the vicinity of this proposed project. At least one of these levee alignments ("Alignment D") would further enclose the cypress swamp that would be benefited by this proposed diversion. There is no discussion of how these two projects would or would not work in concert to achieve the desired ecosystem restoration goals. EPA is concerned that levee alignments which enclose wetlands can result in significant direct, indirect, and cumulative adverse ecological impacts that would be contrary to the LCA Plan in general and this project in particular. The supplemental EIS should explain how any such levee work would be coordinated with the proposed for Convent/Blind River diversion, such that the former does not conflict with or undermine the latter.

Specific comments:

a. It is understood that the Romeville diversion (Alt 2) is the preferred alternative and if implemented will use existing SL James Parish drainage canals. Insufficient data is available to determine if this design addresses the concerns raised in the 2001 Lee Wilson report on Diversions into the Maurepas Swamps regarding diverted Mississippi River water reaching the Blind River directly with most diverted water directly delivered to Lake Maurepas as result. EPA recommends hydrologic modeling efforts to better identify/quantify how water (sediment and nutrients) moves through the system and within each hydrologic unit under the proposed operation plan along with determination of water levels and swamp flood elevations on a refined scale to be incorporated into the hydrologic modeling. Similar comments have been made by the United States Fish and Wildlife Service (USFWS) in its draft Fish and Wildlife Coordination Act report.

b. Page 4-32 through 4-27: Water Quality Concerns – Tables of water quality information do not provide adequate information to support decisions of environmental consequences i.e., data over ten years old suggests that Blind River has levels of copper where mean value is both acutely and chronically toxic to aquatic life. However, no 303(d) listing noted currently. EPA recommends that analytical data be appropriately annotated as to location of monitoring point, hardness of water at that monitoring point and applicable hardness dependent criteria at that point. Also note if analysis yielded total or dissolved pollutant. c. Pages 4-32: Water Quality Concerns - Descriptions of conditions for Lower Mississippi River found on Page 4-32 suggest that volatile organic carbon (VOC) analysis was performed. Data is not presented nor is an explanation of results provided.

d. Page 4-32 : Water Quality Concerns - According to the DSEIS, the LDEQ 2006 Integrated Report both the Primary Contact Recreation (PCR) and Secondary Contact Recreation (SCR) designated uses were fully supported, while Fish and Wildlife Propagation (FWP) and Outstanding Natural Resource (ONR) uses are not supported. The suspected causes of impairment for the FWP designated use were mercury, nitrate/nitrite, non-native aquatic plants, total phosphorus (TP), and turbidity. The suspected sources for mercury were listed as atmospheric deposition and unknown sources. Site clearance (land development or redevelopment) and flow alterations from water diversions were listed as the suspected sources for nitrate/nitrite, dissolved oxygen (DO), and TP. The suspected causes of impairment for the ONR designated use were sedimentation/siltation and turbidity, which are believed to be caused by site clearance.

(1) In light of these impairments, the SEIS should more clearly describe the impacts on the Blind River from diverted Mississippi River water through the swamp and thus to the River. In light of an annual estimate of sediment load to Blind River and Maurepas Swamp of approximately 505,000,000 kg/yr (Page 5-51, Line 2) discuss how sediment loading in return flows (throughput from swamp to River) could affect water quality in the study area. Here again, hydrology is key with respect to such issues. Work on the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Maurepas Diversion project suggests that if the diversion is routed through a swamp receiving area of sufficient size virtually all sediment will be deposited in the swamp.

(2) Page 3-104, Line 28 and Appendix I: In light of current mercury impairments in the Blind River and mercury levels in diverted Mississippi River water, the SEIS should more clearly describe additional mercury loading and methylation risks to the swamp as well as to the Blind River and Lake Maurepaus. Appendix I (Adaptive Management and Monitoring Plan)(Page 10) and DSEIS suggest nutrients are a risk (Page 3-104, Line 28); however, mercury is not mentioned as a risk. EPA recommends periodic monitoring for mercury increases in swamp (sediments, fish tissue) or receiving waters (Blind River/Lake Maurepaus; sediments, fish tissue), along with consideration of what/f any impacts to aquatic life, migratory birds and listed species might be associated with such water quality issues. (Battelle, 2007, Limited Phase II Assessment of Ecological Risks of Contaminants from a Proposed Reintroduction of Mississippi River Water into Maurepas Swamp. Report from EPA Region 6. EPA Contract No. 68-C-03-041, Work Assignment No 4-40.) ~

(3) Page 3-104, Line 28 and Appendix I: In light of current metals water column levels in the Blind River and metals levels in diverted Mississippi River water, the SEIS should more clearly describe additional metals loading risks to the swamp as well as to the Blind River and Lake Maurepaus. Appendix 1 (Adaptive Management and Monitoring Plan)(Page 10) and draft SEIS suggest nutrients are a risk (Page 3-104, Line 28); however, metals not mentioned as a risk. EPA recommends monitoring for metals increases in swamp (sediments, fish tissue).

e. Page 3-102, Line 3-102 and Appendix I: Objectives stated in DEIS on Page 3-102 (beginning at Line 34) and Appendix I (page 10) are not in syne. Ensure that monitoring design supports objective. For example, Objective 1 (EIS) suggests decreases in nitrogen and phosphorus and DO increases but has no monitoring design associated. Objective 1 (Appendix I) does not include water quality at all. Recommend a separate objective for water quality or include as a risk with monitoring design.

f. Page 4-36, Line 10: States 4.2.3.2 Blind River and Maurepaus Swamp. See no information on the swamp.

g. Page 3 – 37, Line 17: blind river should be revised to Blind River.

h. Page 3-16, Table 3-1: Comments for TS-3 to TS-6 are wrong. Comments column narrative needs to shift down.

i. Beginning at Page 5-1, 5 Environmental Consequences: Ensure continuity throughout this section regarding the complimentary projects of Hope Canal and Amite River Canal Diversions. The Hope Canal project is typically discussed in the "no action" alternative. Studies have been performed on the concept of a 1500 cubic feet per second (cfs) diversion impacts to the swamp (as part of the Maurepas Diversion project under the CWPPRA program), the Blind River and Lake Maurepas. Ensure that implications of these studies are applicable to the Convent/Blind Diversion, since this preferred alternative is for a proposed diversion of 3000 cfs.

 Readability would be enhanced if the document would spell out the meaning of acronyms upon first usage, i.e., ADCIRC, PCR, SCR, and ONR.

2. Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock DSEIS, May 2010

WRDA 2007 included authorization for feasibility-level reports of six of the ten nearterm elements in the 2004 LCA Report. Two of those six elements were determined to be hydrologically intertwined and the planning efforts were subsequently combined. Consequently, the projects known as Convey Atchafalaya to Northern Terrebonne Marsh and Multipurpose Operation of the Houma Navigation Lock were integrated into the Pre-Decisional Draft Integrated Feasibility Study and EIS for the Convey Atchafalaya River Water to Northern Terrebonne Marshes and Multipurpose Operation of Houma Navigation Lock (LCA ARTM/MOHNL Project) and it is the later document, published in May 2010, to which these comments apply.

The objective of the project is to provide additional freshwater, nutrients, and sediments to the wetland communities of northwestern Terrebonne Basin, both north and south of the Gulf Intracoastal Waterway, which have exhibited accelerated wetland loss and ecosystem deterioration due to altered hydrology, reduced sediment and nutrient deposition, saltwater intrusion, tidally forced erosion, and subsidence. Currently, net primary productivity is declining and land loss is increasing, with existing fragmented emergent wetlands converting to shallow open water. According to United States Geological Survey (USGS) analyses, the overall rate of land loss in this area is 2,597 acres/year, or approximately 0.3 percent per year. If current conditions persist, it is predicted that 102,000 acres (18%) of remaining wetlands would decline over the next 50 years. Even more dramatic losses would be expected within several of the study subunits, with the loss of all emergent wetlands within the next 50 years.

As part of the feasibility study, multiple alternatives were developed incorporating a large array of treatment measures to be applied over the 1,100 square mile study area. The resulting Tentatively Selected Plan (TSP) is predicted to reduce the loss of 9,655 acres of marsh habitat (3,220 average annual habitat units (AAHUs)) at a cost of \$311,030,000, including monitoring and adaptive management costs.

Of the alternatives studied, Alternative 2 is identified by the Corps and the interagency team as the TSP and it is also identified as the National Ecosystem Restoration Plan (NIER). TSP fits the cost limitations of WRDA 2007 and is the most efficient plan from an incremental cost per average annualized habitat unit (AAHU) perspective. The TSP/NER plan involves construction of 56 structures and other water management features, as well as the opportunistic operation of the Houma Navigation Canal (HNC) Lock Complex, in an effort to address holistically the declining health of the Terrebonne marsh ecosystem, while meeting the planning objectives.

EPA supports the rationale provided for defining the NER plan and EPA further support the selection of Alternative 2 as the TSP. EPA does so in light of the urgency of addressing dramatic wetland habitat loss and degradation in the study area, while recognizing that there are a number of technical and design uncertainties yet to be worked through. The tight schedule under which this DSEIS was prepared resulted in publication of the document before all planning evaluations have been completed. While EPA believes this work should be completed prior to final plan approval, EPA does not believe that these analyses will alter the alternatives ranking. Therefore, EPA recommends that final approval of the TSP/NER plan be conditioned upon completion of additional modeling and hydrology work needed prior to final project design and implementation of the plan. See the USFWS's May 2010 Draft Fish and Wildlife Coordination Act Report for details (Vol. III, Appendix B, pages 47-49).

EPA's support for the TSP is also predicated on the potential for adaptively responding to continually refined data, according to the management and monitoring plan (Vol. III, Appendix I). The incorporation of a monitoring plan and the commitment to adaptive management is a vital component for dealing with the uncertainties associated with the ecosystem modeling and for coordinating this project with other planned and future restoration and storm damage risk reduction projects in the area.

While this plan represents a valuable contribution to reducing the ecosystem degradation in the study area, a sustainable and resilient coastal ecosystem will quite likely require additional hydrologic manipulations. It is unlikely that this project alone will result in a sustainable ecosystem. The project features will not actively introduce additional sediment, nutrients, and freshwater from other sources. It will instead redistribute and more efficiently utilize existing freshwater within the system.

With that frame of reference, the project cost of \$311,030,000 deserves careful consideration. Although the benefit area of the project is large and the ecosystem values to the nation are great, the cost is high and the benefits are incremental. These first cost benefits to the nation will only be realized if a future commitment is made to augment this project with additional hydrologic manipulations at a landscape scale.

This point cannot be overemphasized. As noted in the report, "[[]he project area is declining and imperiled. While the project cannot stop the natural processes of sea level rise, subsidence, and storm-caused erosion, the project can greatly slow down the disappearance of these landforms by decreasing the rate of decline of wetland habitat in the coastal system" (Vol. I, page 4-61).

Relative sea level rise (RSLR) evaluation curves were developed for three different sea level rise scenarios. The TSP/NER plan would provide benefits under the low and the intermediate RSLR scenarios. However, at the high RSLR rate, "marsh collapse is predicted to begin in 2017, when RSLR rate reaches 10 mm/yr. This rate represents a threshold believed to initiate rapid marsh collapse." None of the alternatives would prevent marsh collapse at the high RSLR rate. Once again, this is a large investment for benefits which will require additional treatment efforts to insure sustainability beyond the next seven years. This is too large an investment not to be part of a comprehensive plan of attack.

This project holds the promise of reducing additional wetland losses by some 9,655 acres. That is a far different scenario than "resulting in a net gain of 9,655 acres," as cited in various sections throughout the reports, in both Volumes I and III. This is a significant correction which should be made in the Final EIS.

The correction should start at the top, with Objective 1: "Prevent, reduce, and/or reverse future wetland loss" and Objective 2: "Achieve and maintain characteristics of sustainable marsh hydrology." These goals are worthy of a more comprehensive approach with a larger scope than this near term project affords. As stated in the reports, the desired outcome seems to stop short of the objectives by establishing a measure of "reducing the rate of land loss compared to the pre-project condition." These outcomes appear to be achievable but they do not line up well with the more aggressive objectives. This is also a significant correction which should be made in the Final EIS.

Perhaps another project objective should be to optimize delta building, or at least to avoid negatively impacting ongoing Atchafalaya Delta building processes. The Atchafalaya River is building the only two actively growing deltas on the Louisiana coast. Although these active deltas are growing, they have not offset the land loss in this basin. However, they represent part of the ecosystem that is functioning in a positive trend and that should be valued and protected.

One of the more notable project uncertainties involves the construction and operation of the HNC lock complex for environmental purposes after the year 2025. The HNC lock complex is a feature of the Morganza to the Gulf project. If the lock complex is not constructed or if it is not operated as envisioned by this project, all benefits attributed to that feature will be unrealized. Accordingly, the Final EIS should provide an analysis of benefits (including the calculation of a benefit/cost ratio) both with and without the implementation of this feature.

The Final SEIS should clarify the implications for this project of the Corps' ongoing study to deepen the HNC channel. Also, the Final should clarify the lock closure conditions which were analyzed. In various sections of Volume III, those conditions are reported to include periods when the sector gates would not be closed, while other references infer that the modeling assumed constant closure. Finally, the Final SEIS should provide a plan for operating the sluice gates and it should explain how that operation would be anticipated to impact basin hydrology and consequent ecosystem health and sustainability.

Another area for further consideration involves statements in both Volumes I and III that the floating marshes in the upper Penchant Basin are currently stable and experiencing conditions where sufficient freshwater, nutrient, and sediment loads are being provided. Without further documentation, this conclusion would seem to overstate the current condition of these marshes. At a minimum, the vulnerability of these fragile marshes should be taken into account in the project planning. Based on a study conducted for EPA (Floating Marshes in the Barataria and Terrebonne Basins, Louisiana, Sept. 1994, Charles E. Sasser et al. (LSU-CEI-94-02)), notable changes to these marshes have occurred over the last several decades.

Final Integrated Feasibility Study / SEIS

Six of the study sites in the Louisiana State University (LSU) project lie within the LCA ARTM/MOHNL Project study area. Based on habitat mapping and the results of other work by the same researchers, some floating marsh habitats have changed over the last several decades from one type of flotant to another type, or to open water. In the northern Terrebonne basin and upper Bayou Penchant basin, large areas of formerly *Panicum hemitomon* thick-mat flotant marsh converted to thin-mat *Eleocharis* flotant marshes or to open water. While much remains unknown as to what processes have operated on these areas to produce such dramatically different results, possible contributors include: altered hydrology due to canal construction and dredging; flux of organic material from the marsh due to hydrologic changes; nutria herbivory; nutrient dynamics due to altered hydrology; burning; and floods/storms.

With regard to compensatory mitigation, the report states that "[f]emporary negative impacts to the marsh associated with excavation of canals and management structures will be compensated for by creation of new marsh of better quality as a result of the reintroduction of freshwater, nutrients, and sediments into the Study Area" (Vol. 1, page 4-68 and Vol. III, Section 3, page 49). The more likely case is that marsh degradation will be slowed by these measures. Additional marsh creation should be considered, however, if excess dredged material is available beyond that which is required for canal bank construction. In addition, all actions identified in the Clean Water Act Section 404(b) evaluation to minimize impact should be incorporated into the final plan.

Finally, EPA suggests that, to the degree possible, the Final EIS include an updated assessment of the Deepwater Horizon oil spill impacts to the Terrebonne basin ecological resources subject to this project proposal. The baseline conditions should be modified as necessary and a projection of the potential for the TSP/NER plan, or any individual features of other alternatives, for remediating those impacts should be considered. The TSP/NEP plan should be modified if the incorporation of other features could reasonably be expected to provide incremental benefits to protect the marshes from further oil spill damage under non-storm and/or storm conditions.

As a partner with the Corps of Engineers and others in the restoration of coastal Louisiana, EPA offers these comments in an effort to promote the most effective long-term wetlands protection and restoration strategy for the study area. This near term project could provide a platform for a sustainable coastal ecosystem, when viewed in tandem with measures to provide additional inputs of sediments and flows.

3. Medium Diversion at White Ditch DSEIS, May 2010

As noted in our cover letter, EPA supports the proposed White Ditch diversion. It is consistent with our long-standing priority of re-establishing Mississippi River inputs to help undo to some extent the major disruption of deltaic processes that underlies the ongoing loss of coastal wetlands in Louisiana. EPA recognizes such river diversions have the potential to alter existing fisheries in the receiving areas due to changes in salinities, nutrients, sedimentation, and other factors. However, without efforts to restore deltaic processes by reintroducing riverine inputs, the productivity of such fisheries and coastal wetlands remains gravely threatened. The cost of inaction is continued rapid decline of wetlands and the related aquatic resources in deltaic Louisiana.

Nevertheless, EPA is sensitive to the potential effects of diversions on fisheries and the livelihoods built upon them. EPA recognizes the value of minimizing impacts where practicable and consistent with the pressing and long-term need to restore some semblance of sustainability to coastal Louisiana. There appear to be restoration approaches which could mimic natural deltaic processes and possibly minimize such impacts to existing fisheries. Specifically, EPA is referring to the concept of diversion "pulsing" which is intended to mimis esaesonal riverine inputs historically associated high water events on the Mississippi. Such a "pulsing" operation is proposed for the White Ditch diversion, and entails high volumes of riverine input for months when stages and sediment concentrations are relatively high, followed by relatively limited "maintenance" inputs during the remaining months. This operation scheme has the promise of increasing sediment inputs, while reducing potential disruption of fisheries.

As noted in the cover letter, the capacity to precisely predict the effects of this and other coastal restoration projects is limited by uncertainty over major variables, particularly the future rate of relative sca level rise. This puts a premium on monitoring and adaptive management. At the programmatic level, the information gained through implementation of the White Ditch diversion would help test the diversion "pulsing" concept, thereby potentially assisting the larger-scale planning necessary to address coastal land loss in Louisiana. Thus, we believe the White Ditch project has the potential to both help restore coastal wellands in the relative near term and support comprehensive coastal restoration in the future.

EPA appreciated the Corps' efforts to consider how different relative sea level rise (RSLR) scenarios could affect projected project benefits. Certainly, the central focus of this project (increasing sediment input into coastal marsh) is of primary importance for offsetting or slowing wetland loss due to RSLR. EPA agrees that diversion alternatives that provide greater sediment inputs could provide greater wetland benefits in that regard. However, the DSEIS might overstate the ability of the tentatively selected plan to counter more extreme rates of RSLR. Specifically, the DSEIS states that the tentatively selected plan could be used to "overcome high sea level rise". Such a statement should be tempered by the recognition that such high-end RSLR estimates would represent unprecedented environmental conditions and, therefore, our ability to accurately predict marsh response to such is limited. We would also note that the aforementioned quote appears inconsistent with the statement made on page ES-11: "...no evaluated alternative is able to offset the high rate of sea-level rise." 4. Concur. The sentence on Page ES-11 has been reworded to state, "...no evaluated alternative is able to entirely offset the high rate of sea-level rise."

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More information and analysis should be provided on potential inputs of nutrients and agrochemicals as a result of the proposed diversion. For example, data is available on the fluctuating levels of atrazine concentrations in the Mississippi River. This information could be combined with the proposed diversion operational scheme and alternatives to estimate potential atrazine inputs into the estuary. Similar analysis should be done for nutrient loading. EPA suggests the Final SEIS include a graph showing atrazine concentrations in the Mississippi River over the period of a year. Such a graph should also include a line showing proposed diversion discharge rates over the same period of time. This would highlight the relationship between diversion discharge rates and atrazine concentrations in the river. On the subject of atrazine, EPA asks the Correst to express the apparent wording error on page 5-24: "The long-term effects, would be currently being investigated." (Emphasis added.) If such long-term effects are indeed currently being studied, EPA asks whether the Corps plans to review the findings of such investigation and if necessary incorporate that information into the operational scheme for this proposed diversion.

With respect to nutrients, dissolved oxygen, and other water quality issues, EPA recommends the Corps consider adding water quality parameters to the monitoring plan and adaptive management scheme. The goal would be to have the ability to detect and respond to any unforescen adverse water quality impacts that could result from operation of the proposed diversion. This would include measurements of dissolved oxygen levels in open water areas, as well as monitoring for atrazine, metals, and any other pollutants of concern.

The DSEIS should provide additional information on potential salinity and associated habitat changes expected to occur due to the proposed diversion and alternatives. The final SEIS should include maps showing existing marsh types and anticipated changes in marsh types associated with the proposed project and alternatives. It would also be informative to include maps showing existing base-case isohaline lines and the anticipated changes in such over time (i.e., during the high-flow period, the middle of any "rebound" period, and low flow months.

Finally, as noted in our cover letter, EPA supports recommendations made by the National Marine Fisheries Service with respect to any additional analysis (including modeling) needed to adequately assess and disclose potential effects on fisheries.

4. Amite River Diversion Canal Modification DSEIS, May 2010

Both the TSP and the NER plan appear to be good projects from a cost-benefit perspective. EPA supports either alternative TSP or NER plan.

There is likely continued interest on the part of some landowners to log cypress in the Maurepas Swamp. Given the degraded state of the swamp throughout much of this area, there is 5. The sentence should read "are currently being studied and during the PED phase this information along with all other pertinent Water Quality information will be used to develop monitoring plans and determine what the operational scheme for the proposed diversion".

6. Response: Improving water quality is not a stated objective of the White Ditch project. However, excess nutrification is a risk endpoint and nutrient monitoring is proposed. The concern for atrazine, metals and other pollutants are noted; however, the Adaptive Management Framework Team does not know how monitoring information on these parameters would yield any adaptive management actions. This additional monitoring can be reconsidered during PED.

7. Section 5.3.2.2.1 was revised to more accurately and adequately explain the anticipated changes to salinity regimes based on the year long modeling run. Figure 4.1 shows habitat changes over the past century. Figure 4.2 shows the existing habitat in the Breton Sound Area. A year long WVA analysis was not possible due to time constraints. Even if a WVA had been used predict habitat changes based on the year long run, it would difficult to accurately predict where these would occur. Therefore a map of predicted changes will not be included. Changes in isohaline lines are also very difficult to accurately predict and could vary every year. The regime modeled was one of a multitude that could have been considered. It could be misleading to include a map of isohaline lines based solely on one operating scenario. In fact, it is likely that actual operation regimes would be different than those modeled. Structure operations could be managed to achieve specific results.

a high risk that any such logging would be unsustainable. Such logging could conflict with or undermine this and other proposed restoration efforts for the Maurepas Swamp. Accordingly, this project should include as a non-structural measure a commitment to full and effective enforcement of Clean Water Act Section 404 and/or Section 10 of the Rivers and Harbors Act as such laws pertain to logging.

The Fish and Wildlife Coordination Act report dated April 2010 and attached at Appendix B is not discussed in the DEIS. Additionally, pages appear to be missing from the report at Attachment B, namely, the USFWS recommendations.

Finally, the cumulative impacts do not include the additive impacts that would be expected from construction of this project in conjunction with the other two Maurepas Swamp diversion projects – Hope Canal and Convent/Blind River.



July 1, 2010 F/SER46/RH 225/389-0508

Ms. Joan Exnicios, Chief Environmental Planning & Compliance Branch Planning, Programs & Management Division New Orleans District, US Army Corps of Engineers Post Office 60267 New Orleans, LA 70160-0267

Dear Ms. Exnicios:

The NOAA's National Marine Fisheries Service (NMFS) has reviewed the Pre-Decisional Draft Integrated Feasibility Study and Supplemental Environmental Impact Statement (SEIS) for the Louisiana Coastal Area Medium Diversion at White Ditch Project, Plaquemines Parish, Louisiana. This document was transmitted for our review by your letter dated May 21, 2010. As indicated in the transmittal letter, submittal of the document to NMFS initiates essential fish habitat (EFH) consultation as required by provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (P.L. 104-297).

The tentatively selected plan (Alternative 4) calls for construction of ten, 15-foot-high by 15foot-wide box culverts in the east levee of the Mississippi River near Phoenix, Louisiana. The culverts would divert river water and sediment into the River aux Chenes sub-basin and other portions of upper Breton Sound to restore and protect wetland vegetation and soils and maintain a functional salinity regime. Operational aspects of the plan include an annual pulse diversion of up to 35,000 cubic feet per second (cfs) during the March 1 to April 30 period of each year and 1,000 cfs monthly flows the remainder of the year. Project benefits based on the results of Wetland Value Assessment modeling include maintenance of 41,206 acres of existing wetlands that would otherwise be lost to subsidence and other natural and anthropogenic causes. Other components of the planned action include restoration of more than 20,000 acres of fresh, intermediate, brackish, and saline wetlands and the creation of 31 acres of rige hardwood forest. Some of the material for wetland restoration and ridge creation would be obtained from the creation of a diversion channel that is estimated to impact more than 220 acres of existing wetlands and water bottoms.

NMFS previously provided planning aid comments on the project by letter dated February 10, 2009 and via electronic mail on February 1, 2010. The following comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and 600.920 of the Magnuson-Stevens Act.



Thank you for considering these comments. If you wish to discuss this project further, please contact Mr. Richard Hartman at (225) 389-0508, extension 203.

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Sincerely,

Wiles M. Cwom

Miles M. Croom Assistant Regional Administrator Habitat Conservation Division

NMFS Comments on the Supplemental Environmental Impact Statement for the Louisiana Coastal Area Project Medium Diversion at White Ditch

Essential Fish Habitat (EFH) Consultation

Based on NMFS' review of the SEIS, we have determined the document contains all required EFH assessment contents listed in section 600.920(e)(3) of the EFH regulations of the Magnuson-Stevens Fishery Conservation and Management Act. Specific comments are provided below where NMFS believes clarification or additional information is needed concerning impacts to EFH and other environmental factors. NMFS concurs with the Corps of Engineers' (COE) determination that project-related benefits should more than offset short-term adverse impacts to EFH. However, to attain this, measures identified in the SEIS that are intended to avoid, minimize, and offset adverse effects must be implemented. These measures include, but are not limited to, use of best management practices during project construction and operation, and implementation of proposed monitoring and adaptive management actions as needed to measure project related impacts and provide a framework for decision-making and needed change.

The EFH assessment provides a rational basis and justification for conversion of one type of EFH for another type of EFH and that ecological services within the overall project area would benefit substantially with project implementation. Based on this and fulfillment of the abovementioned requirements of the EFH regulations, NMFS has no EFH conservation recommendations to offer at this time. Provided the project is completed as proposed, or modified to further avoid and minimize adverse impacts to EFH, no further consultation under provisions of the Magnuson-Stevens Fishery Conservation and Management Act is required.

General comments

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In NMFS' review of the SEIS, our primary focus is on descriptions of the existing conditions and anticipated environmental consequences of the tentatively selected plan (TSP), also identified in the SEIS as Alternative 4. In the interest of time and to minimize redundancy NMS specifically omitted comments on the other "action" alternatives. For the most part, the environmental consequences of those alternatives are expected to be similar to the TSP; however, some relative reduction in impacts (and benefits) might occur if the diversion rates are reduced. Based on this, the comments provided herein would also apply in the event that a different action alternative is selected for implementation.

NMFS is concerned that commitments made during a January 26, 2010, meeting to discuss this and other Louisiana Coastal Area projects are not reflected in the SEIS. Specifically, NMFS recommended during that meeting, and in Project Delivery Team meetings on the White Ditch study effort, that the COE undertake modeling to assess potential project impacts on marine fishery productivity and dissolved oxygen levels in the Breton Sound estuary. Due to time constraints, such modeling efforts were not undertaken to support the evaluation of impacts to resources of concern provided in this SEIS. However, NMFS believes it was understood after

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1. Comment is noted. The Corps will continue to work with the LADNR-OCPR and other State and Federal agencies during the PED phase of the project to identify and evaluate opportunities to avoid or minimize adverse impacts to EFH.

2. Concur: The document will be updated to include the phrasing "Fishery modeling and habitat change modeling will be performed during the PED phase. The cost and schedule for this will be incorporated into the PMP being developed by the Corps for the PED Phase. At this time a SOW is being developed as part of the Donaldsonville to the Gulf project to look a various models and develop a white paper on the best use of them. The intent of these models is to support adaptive management of this project."

that meeting that modeling would be undertaken during the preliminary engineering and design phase of this project to better assist in adaptive management efforts. Such discussions are briefly reflected in the minutes of that meeting. Considering that this diversion would be at least 3.5 times greater in magnitude of diverted water than the next largest diversion in Louisiana, NMFS strongly believes that such analyses, and their use to inform the adaptive management effort, are necessary.

Specific comments

EXECUTIVE SUMMARY

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Page ES 3. line 1343 Throughout the document there are references to water releases in March-April, "March/April," and other timeframes. Each water release timeframe needs to be specifically defined using a single designation (e.g., March-April or March/April) and it should be made clear whether the timeframe refers to the beginning or end of the month(s) mentioned. The timeframe for the "1,000 cfs maintenance flow" also should be defined in terms of duration. We presume this is a monthly rate for each month outside the March/April pulse flow; however, this is not explained in the document.

SECTION 1.0 STUDY INFORMATION

- 1.5 Prior Reports and Existing Projects
- 1.5.3 Local

Page 1-12, lines 2060-2068 This section of the document should be modified to note that by action of the Coastal Wetlands Planning, Protection, and Restoration Act Task Force in January 2010, the West Bay Diversion is scheduled for closure by 2011.

SECTION 2.0 NEED FOR AND OBJECTIVES OF ACTION

- 2.4 Problems, Needs, and Opportunities
- 2.4.1 General Problem Statement

Page 2-5, line 2299-2303 The effects of sea level rise should be listed as a contributing factor in wetland deterioration in the project area. Predicted sea level rise rates have increased over

historic rates and, based on available information, may increase even more. Based on this and COE policy to evaluate all proposed actions with various predicted sea level rise rates, the anticipated effects of sea level rise should be identified as a significant contributing factor in the

SECTION 3.0 ALTERNATIVES

3.4 Final Array of Alternatives

loss of project area wetlands.

3.4.5 Alternative 4 - 35,000 cfs Max Diversion (TSP)

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3. Concur. The document has been edited to reduce or eliminate inconsistencies in terminology and labeling where possible.

4. Concur: The suggested change has been incorporated into the report document

5. Concur. A summary of the sea level rise effects has been added to Page 2-5 as a contributing factor to wetland loss and deterioration.

Page 3-41, lines 3400-3404 While information is provided in the description of this alternative pertaining to the diversion structure, no information is provided in the document on the design of the flow constrictors proposed for installation at four locations on River aux Chenes. The SEIS should be revised to provide this information.

3.5 Comparison of Alternative Plans

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3.5.2 Wetland Value Assessment (WVA)

Pages 3-47 through 3-48. Tables 3.8 - 3.10 Acreage and average annual habitat unit impacts associated with each alternative are described in these tables. For example, impacts associated with channel enlargement for alternative 4 are estimated at 223 acres. However, the quantity of each habitat type (i.e., intermediate marsh, brackish marsh, open water, etc) impacted by each project component is not clearly identified here, or in numerous other locations in the SELS. There should be a summary table provided in the document and cited throughout the text that clearly identifies the categories of habitats to be benefitted and impacted by each alternative and that quantifies those impacts, future-with and future-without project implementation, during all stages of construction and project life.

3.9 Plan Formulation – Tentatively Selected Plan 3.9.6 Monitoring Plan and Adaptive Management

Pages 3-59 through 3-62 The Monitoring and Adaptive Management Plan (MAMP) is an essential component of the project. Environmental monitoring is needed to assess project related impacts and determine the need for operational changes to protect and restore EFH and other habitat and resources. By letter dated April 7, 2010, the U.S. Fish and Wildlife Service (FWS), in coordination with NMFS, provided detailed comments concerning needed changes in the project's MAMP. NMFS recommends the MAMP be modified in accordance with FWS and NMFS recommendations and that it be incorporated into the final SEIS as a project ormonent. In terms of specific recommendations for revision, NMFS believes it is critical to monitor dissolved oxygen levels and phytoplankton populations in areas potentially impacted by diverted river flows. NMFS suggests such monitoring efforts be undertaken in conjunction with nutrient sampling identified under objective 2 and that the MAMP be revised to indicate that the natural resource agencies will be consulted on the exact locations of the sampling sites.

3.11 Implementation Responsibilities

3.11.4 Environmental Commitments

Page 3-69, lines 471-476 This section of the document quantifies construction impacts to combined habitat categories. As discussed above, NMFS recommends this and all similar sections of the SEIS (e.g., 5.1.1.5.1; 5.6.2.5.1) be revised to clearly quantify project impacts by component and habitat type.

4.0 AFFECTED ENVIRONMENT

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6. Concur. Additional information on the design of flow constrictors (now relabeled as notched weirs) has been added to the text of the document.

7. Revised WVA numbers and acres affected have been added to Appendix B of the final document.

8. Response: Section 1.3 of Appendix I states the intention of the USACE to engage NOAA/NMFS and other federal resource agencies as participants in the adaptive management program for this project. This engagement will include the selection of exact locations for sampling sites. The Adaptive Management Framework Team is not clear as to how this additional monitoring information will guide adaptive management decisions. Therefore, it has not been added. This additional monitoring can be reconsidered during PED.

9. Revised WVA numbers and acres affected have been added to Appendix B of the final document.

4.2 Significant Resources 4.2.3 Water Ouality and Salinity 4.2.3.2 Existing Conditions Pages 4-6 through 4-8 There is no discussion in this section pertaining to existing dissolved oxygen levels in the project area. This section does indicate that nutrient concentrations found in 10 Mississippi River water could lead to excessive algal growth and eutrophication. This section of the document should be revised to evaluate dissolved oxygen levels at various times of the year in the project area. 4.2.9 Fisheries 4.2.9.2 Existing Conditions Pages 4-16 through 4-17, lines 4869-4875 The entire analysis of fishery historic conditions pertaining to finfish and shellfish, not including the eastern oyster, totals five sentences. There should be sufficient information available from the Louisiana Department of Wildlife and 11 Fisheries to identify and quantify the species composition of commercial fishery landings for the Breton Sound area. Because such landings have the potential to be impacted by project implementation, NMFS recommends the SEIS be revised to include a thorough analysis of the finfish and shellfish fishery conditions and harvests in the project area. Page 4-17; line 4876 It is unclear what is meant by "rich ecological and commercial resource." From an ecological perspective, richness is generally used as a measure of faunal diversity. The 12 meaning of the statement should be made clear or deleted. Also, the statement that oysters are unique because they "do not migrate like other estuarine species" is inaccurate. Many other estuarine species do not migrate. 5.0 ENVIRONMENTAL CONSEQUENCES 5.3 Water Quality and Salinity 5.3.1 Water Quality 5.3.1.5 Alternative 4 - 35,000 cfs max Diversion (TSP) Page 5-23, line 6339 Wording in this line suggests that project implementation would stabilize salinity regimes. Given that major portions of the project area would be rendered completely fresh for two months out of the year and then experience much reduced flows the remainder of 13 the year, NMFS questions that project implementation would stabilize salinity regimes. NMFS suggests this section be rewritten to identify and discuss expected salinity regimes in the project area with implementation of the TSP. Page 5-24, lines 6351-6363 The evaluation of project-induced impacts to water quality is inadequate. Monthly nutrient levels for the Mississippi River are available and could be coupled with proposed diversion rates to calculate estimates for nutrients and chemicals that would be 14 introduced into the project area. Nutrient and chemical uptake rates for wetlands and water

introduced into the project area. Nutrient and chemical uptake rates for wetlands and water bodies also are available, thus allowing prediction of effects of the alternative flow rates on

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10. Dissolved oxygen levels throughout the project area are highly variable and dependent on many factors. Field monitoring protocols and techniques will be established in a monitoring plan developed cooperatively with appropriate stakeholders. This plan will address dissolved oxygen along with a multitude of other parameters within the project boundaries. Pre-project DO levels will be captured during PED to establish a baseline for adaptive management.

11. Additional text has been added to Section 4.2.9 of the final document.

12. Concur: Text has been revised.

13. The text referred to by the comment was removed Section 5.3.1.5.1. Salinity is discussed in much more detail in the following Section 5.3.2. 5.3.2.2.1 was revised to more accurately and adequately explain the anticipated changes to salinity regimes.

14. Pre-project monitoring would be scheduled during the PED phase of the project. This will allow for modeling and loading calculations for nutrients and other parameters determined to be of value to the project. This will be included in the monitoring plan developed cooperatively with appropriate stakeholders to ensure the best data is collected to aid in the adaptive management of the project.

nutrient levels, phytoplankton abundance (blooms), and dissolved oxygen. NMFS recommends this section be rewritten to use available data to predict project-inducted impacts on phytoplankton populations and dissolved oxygen.

Page 5-25, line 6419 The last bulletized statement on this page suggests that project implementation would increase dissolved oxygen levels. Given concerns discussed above, NMFS recommends the SEIS be rewritten to support this statement or that it be deleted from the document.

5.3.2 Salinity

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Page 5-29, line 6534 Wording in this sentence suggests that the direct effects of the 35,000 cfs diversion on salinity would be similar to those associated with the 5,000 cfs diversion. Considering the magnitude of difference between the two diversion volumes, it seems likely that significant salinity variation would in fact occur. If truly similar, the bases for such similarity should be explained in terms of model results. Also, the extent and duration of salinity modification resulting from the 35,000 cfs diversion should be graphically illustrated.

<u>Page 5-29, lines 6550-6555</u> Although there is acknowledgement that some level of cumulative/synergistic effect is possible in connection with other diversion projects in the area, the magnitude of possible impact is unclear. The final SEIS should describe the possible environmental consequences of cumulative and synergistic effects of all relevant diversion projects in combination with the proposed action. To the extent practicable, salinity distribution maps, based on model results, should be provided. The maps should show spatial and temporal distribution of salinity regimes under the various alternatives and in conjunction with other diversion projects. Finally, it should be explained how operational adaptation at other projects, when needed in conjunction with the White Ditch project, will be implemented.

5.6 Vegetative Resources
5.6.2 Wetland Vegetative Resources
5.6.2.5 Alternative 4 – 35,000 cfs max Diversion (TSP)

Page 5-39, lines 6903-6908 According to this section, material derived from constructing the diversion structure would be placed on existing wetlands where it would provide a base for "regeneration" of approximately 417 acres of wetland vegetation, to include 31 acres of bottomland hardwoods. The final SEIS should include a description of "regeneration" and all associated short-term and long-term impacts to wetlands and other aquatic sites and resources. It is also unclear if creation of 31 acres of bottomland hardwood involves conversion of wetlands or if uplands account for some of the acreage figure. In addition, a timeframe for recovery of wetlands impacted by project construction is needed. The information provided in the SEIS indicates that significant short-term adverse impacts would occur; however, it is unclear at what point in time those impacts would be offset by project related benefits (wetland maintenance and restoration).

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15. The last bullet on dissolved oxygen was removed from the final document.

16. Model results demonstrated that the results of the March-April pulse were fairly equivalent within the project area regardless of the size of the diversion. The 5,000cfs diversion, with supplementary flows from the Caernarvon diversion, can freshen the vast majority of the Breton Sound (0.0 - 5.0 ppt) as effectively as the 35,000 cfs diversion. The difference between the alternatives is seen outside of the project area where there is a difference in the distance freshwater moves out into the Breton sounds before being diluted by saltwater. Further modeling to better analyze this extent for the Recommended Plan are scheduled during PED to allow for better adaptive management of the diversion.

17. The MDWD team did not have enough time to fully describe the complete cumulative and synergistic effects of all relevant diversion projects. However; there is a separate LCA study that is scheduled to look at managing all the diversions on the lower river together in a fashion that will minimize impacts to navigation while reestablishing a healthy delta. Due to the size and scope of this effort, it is not realistic for the MDWD PDT to analyze such a project, but rather to have a separate study that will aide all current and upcoming ecosystem restoration projects along the Lower Mississippi River.

18. Concur. Additional detail concerning the timing of shortterm adverse impacts is provided in the revised WVA assessment documentation included at the end of Appenidix B. 5.6.4 Submerged Aquatic Vegetation 5.6.4.5 Alternative 4 – 35,000 cfs max Diversion (TSP)

<u>Page 5-43, line 7011-7014</u> To the extent practicable, locations (maps) and acreages for anticipated SAV alteration within the overall project area should be provided. At a minimum, the acreage of SAV in the vicinity of the outfall channel is needed since SAV located there will be eliminated. While a net increase in SAV is anticipated with the project, it should be shown that this increase is sufficient to offset temporary loss or conversion of SAV to unconsolidated bottom.

5.9 Fisheries

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5.9.5 Alternative 4 - 35,000 max Diversion (TSP)

Page 5-64, line 7815 NMFS disagrees with the determination that construction of the 35,000 cfs structure and associated water diversion channels and planned wetland regeneration would have only minor short-term impacts on fishery resources. Complete, ableit temporary, loss of sessile and slow-moving fishery resources in the project construction footprint (283 acres of intermediate marsh and 363 acres of shallow open water) is significant. The final SEIS should be modified to accurately reflect the magnitude of this impact.

Page 5-64, lines 7821-7824 Little information has been provided on the environmental consequences of placing flow constrictors at various locations in the project area. Effects on movement of all life stages of fish and invertebrates should be more fully evaluated and alternative migration pathways to wetlands behind these flow constrictors should be identified.

Pages 5-64 through 5-65, lines 7828-7845 NMFS believes it is possible to evaluate the likely impacts to marine fishery species from the operation of the TSP through the implementation of various fishery modeling efforts. This was addressed in a January 26, 2010, meeting with the COE and natural resource agencies. At that time, the COE committed to undertake a quantitative

22 COE and natural resource agencies. At this was addressed in a failuary 20, 2010, meeting with the COE and natural resource agencies. At that time, the COE committed to undertake a quantitative analysis of likely impacts to fishery resource standing crop and productivity in association with development of project management plans for construction and operation of the proposed structure, and in connection with development of the adaptive management plan. The final SEIS should state that a quantitative analysis of likely impacts to fishery resources standing crop and productivity would be completed during the preliminary engineering and design and MAMP phases of project implementation, and that the results of those modeling efforts would be released at a later date.

<u>Appendix I: Monitoring and Adaptive Management Plan</u> As noted in previous comments pertaining to section 3.9.6 of the SEIS, the MAMP should be modified in accordance with recommendations contained in the April 15, 2010, letter from the FWS which was prepared in coordination with NMFS.

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19. A total of 363 acres of open water habitat will be impacted by the ridge creation, marsh creation, and construction of outfall channels. That open water is assumed to have 25% SAV coverage which would amount to 91 acres of SAV habitat. Under FWP, 652 acres of fresh/intermediate open water exists at TY50 with 70% SAV coverage which amounts to 456 acres of SAV habitat.

20. Concur: Text has been revised in the Final EIS to better reflect the impact on fishery resources in the construction footprint.

21. Concur: Text has been revised in the Final EIS to provide additional detail on the anticipated impact of flow constrictors (now referred to as "notched weirs" in the document) on aquatic resources.

22. Concur: The document will be updated to include the phrasing "Fishery modeling and habitat change modeling will be performed during the PED phase. The cost and schedule for this will be incorporated into the PMP being developed by the Corps for the PED Phase. At this time a SOW is being developed as part of the Donaldsonville to the Gulf project to look a various models and develop a white paper on the best use of them. The intent of these models is to support adaptive management of this project."

23. Comment is noted.

1. Your statement of support is noted.

----Original Message-----From: Albertine Kimble [mailto:albertine_kimble@plaqueminesparish.com] Sent: Thursday, July 01, 2010 9:15 AM To: MacInnes, Andrew D MVN Subject: White Ditch Diversion Project Andrew, the White Ditch Diversion Project is a mandatory project for the salvation of existing wetlands and future wetlands. Why? To me, this area is just as bad off as the Barataria Basin across the river from this project site. No freshwater=Nothing. The operations of this diversion will be the key to saving this area. Mirnicking the river as close as possible to like having NO levee, Fresh water is NOT Bad. It is just how much and how long. I know I always say look at the Ostrica locks down and this area is self explanatory what is happening there. Land is building own its own and no one even notices that. The river brock that oid stupid levee own its own and the sediment is filling the areas like little island builders. (East Bank) Look at a map of the area and tell me what you see on the West Bank across from the same area, NOTHING, open water due to no siphon or diversion. This area is a goner. Yea, oysters are there but, even oysters need land for the spat to collect too. The most important aspect of the project is that it is a sediment delivery diversion, not just a freshwater diversion. On this project you get the miracle grow and the miracle (sediment) that will make all the difference in the wordi. I am a believer of making a project work; you can ahways find a solution for any problem with all the brain power that we have with every agency working together. If we do NOTHING we will have nothing, and time is crucial. Please with lay are at it. Save West Bay too all we need are weirs set up to slow the monster down. All that sediment is going in the wrong area, even that can be fixed. Long live the diversions to save a place that is the most dynamic area in the word and worth all the money we have to save. Living to save the Louisiana coast, Jubertine M. Kimble area is avein the two most and the diver

-----Original Message--From: savastano [mailto:savastano@bellsouth.net] Sent: Thursday, July 01, 2010 4:21 PM To: Dayan, Nathan S MVN Cc: Billy Nungesser; don beshel; P J Hahn; MacInnes, Andrew D MVN Subject: COMMENTS ON Pre-Decisional Draft Integrated Feasibility Study and Supplemental Environmental Impact Statement for Medium Diversion at White Ditch Plaquemines Parish Louisiana May 2010 By Louisiana Coastal Area Ecosystem Restoration The report was quite extensive but did not adequately address the problems that we have had with the Caernarvon Diversion. We need a small dredge in the Mississippi River to put silt into the marsh (a small diversion flow 5000 cfs at most). The proposed 35000 cfs will wash out and float the existing marsh in the area and deposit a minimum amount of silt. It will reduce the salinities in the area for long periods of time and long enough to kill oyster reefs, displace salt water fish habitat, introduce large quantities of invasive species (water hyacinths and pea vines), and finally it will kill off the brackish and

salt marsh and replace it with fresh and intermediate marsh which is not sustainable in a salt water/storm environment. We lost 37% of our marsh in the Caernarvon influence area while only losing 12-13% in the White Ditch and Caernarvon Outfall areas which were least affected by the Caernarvon Diversion in the last 18 years. This proposed Medium White Ditch Diversion is a 35000 cfs version of the 8000 cfs Caernarvon Diversion and can result in the same kind of destruction, only faster and more extensively if operated as proposed.

Ken Savastano 504-682-0392

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1. Chapter 3 and Section 3.5 specifically deal with why the recommended plan was chosen. Chapter 4 and 5 describe existing conditions and anticipated impacts. Appendix L describes in detail the engineering of the design. In essence, a large diversion can be run for a short duration and achieve the goals of the project while avoiding the scenario described in the comment. Hydraulic modeling shows that a smaller diversion has to be run for a much longer duration than a large diversion. It is the length and timing of diversion operations, not the size of the diversion, that have potential to cause the scenario described. The short march/april pulse of a large diversion coordinated with optimal river conditions greatly minimizes potential impacts to socioeconomic resources. The results of detailed modeling and analysis lead us to respectfully disagree with this comment. Regardless, the comment is appreciated

From: Whiteditch@aol.com [mailto:Whiteditch@aol.com] Sent: Monday, July 05, 2010 2:14 PM To: Dayan, Nathan S MVN Subject: White Ditch Diversion Dear Sir:

I was not able to make the meeting that was recently held at Phoenix High School but I would like to now voice my objection to the above project. I simply cannot understand, after all of the talks I had with Andy McGinnis, and other Corps representatives, why they still insist on the massive structure that is proposed. I live at the White Ditch and know for a fact that the White Ditch siphon, for all the years it has operated (since 1962) has not built one foot of land. In fact when it runs hard, I loose land.

(Don't believe me; come on down and I'll show you.) The only sediment that occurs is about 500 feet from the outfall and it is very minimal. The Canarveron (sic) Diverson, in all its years of operation, has not built any land. To the contrary, it has (1) washed away land, (2) created a freshwater marsh that produces vegetation with no root system that dies with the least little tropical disturbance and (3) kills the brackish/saltwater vegetation which holds the land together. How do I know this??? Because I am here everyday and see the marsh everyday. I saw what happened after Katrina, Gustave and Ike. The marsh was like a barren wasteland because all the freshwater vegetation was killed by the saltwater. Where saltwater vegetation existed, the marsh (what was left of it) came back in fine fashion. It is too late for siphons and diversions. We can't wait 25 or 50 years. (I have been waiting since 1962 for the White Ditch siphon to help and it has not.) The only answer, and the one everyone ignores, is to pump sand from the river into the marsh. Why that is so hard to understand is beyond me. No one has ever told me why that is not an option. It is a one time thing and you can build at least ten acres in a month Anything else and you are wasting the taxpayers' money. So for what its worth (and it obviously will be ignored like everything else I have said) these are my objections to your project. My land will be affected and not in a favorable way. I will loose land, I will have what is left of my marsh turned into a freshwater vegetation paradise that will die at the first east wind and leave my land like a parched desert. Do you know that after Ike, we did not even have enough marsh grass to make a decent duck blind? I just don't get it and never will. I live here, the corps and whoever do not. Please reconsider this project. Very truly yours.

Judge Robert L Lobrano (retired)

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1. Your statement of opposition is noted. Dredging and direct placement of river sediments was considered in the early stages of project planning but was eliminated from more detailed consideration for reasons of efficiency as noted in Table 3.3 of the Draft EIS.

LDEQ Comments regarding US ACOE Proposal to Establish a Medium Diversion at White Ditch 07/05/2010

----Original Message-----From: Chris Piehler [mailto:Chris.Piehler@LA.GOV] Sent: Monday, July 05, 2010 2:51 PM To: Dayan, Nathan S MVN Cc: Chuck Berger Subject: Mississipp River diversion at White Ditch

Mr. Dayan please accept the attached comment from the LDEQ on the captioned subject. Hard copy will be placed in tomorrow's mail.

Chris . M. Piehler, LDEQ

WQAD Administrator

225-219-3395

Louisiana Department of Environmental Quality (LDEQ) comments regarding the Corps of Engineers' draft supplemental environmental impact statement (SEIS) for the LCA-Medium Diversion at White Ditch, LA, May 2010

General Comments:



LDEQ supports the Corps' efforts to restore and maintain the ecological integrity, including habitats, communities, and populations of native species, and the processes that sustain them by reversing the trend of degradation and deterioration to the area between the Mississippi River and the River aux Chenes ridges.

1. Comment is noted.

1. Your statement of concern is noted. However the schedule for the LCA 6 projects was extremely accelerated and did not allow time for extensions without risking loss of authorization.

From: Kevin J Suir [mailto:suirk@usgs.gov] Sent: Tuesday, July 06, 2010 11:00 AM To: Dayan, Nathan S MVN Subject: Fw: LCA Web Site Response Form ----- Forwarded by Kevin J Suir/BRD/CONT/USGS/DOI on 07/06/2010 10:59 AM -----From: noreply@usgs.gov To: suirk@usgs.gov, richardl@usgs.gov Date: 07/03/2010 05:21 AM Subject: LCA Web Site Response Form Name: LCA Comment Email: fishhomes@cox.net Comments: I have searched your district homepage and LCA.gov page and find it very lacking in the ability to find the draft LCA reports that are out for public review and for posting comments on those reports. You should fix this problem and extend the comment period so members of the public can easily find the report and comment to mtem.



July 6, 2010

Colonel Alvin Lee Commander New Orleans District U.S. Army Corps of Engineers P.O. Box 60267 New Orleans, LA 70160

Re: LCA Draft Feasibility Reports and Draft Environmental Impact Statements

Dear Colonel Lee:

Thank you for the opportunity to review and comment on the LCA Draft Feasibility Reports and Draft Environmental Impact Statements. Section 7006(e)(3) of the 2007 WRDA identifies six near-term restoration projects that Congress has authorized for construction subject to, among other things, completion of feasibility studies and a Chief's Report before December 31, 2010. The draft Feasibility Report covers five of those six projects:

- Medium Diversion at White Ditch
- Convey Atchafalaya to Northern Terrebonne Marsh/Multipurpose Operation of the Houma Navigation Canal (HNC) Lock (two projects merged)
- Small Diversion at Convent/Blind River
 Amite River Diversion Canal (ARDC) Modification
- Amite River Diversion Canal (ARDC) Modification

Although we were disappointed that the initial deadline of December 31, 2008 was missed, we commend the U.S. Army Corps of Engineers and the State of Louisiana in working diligently to meet the December 31, 2010 as directed by WRDA. It is imperative that these projects are constructed as quickly as possible and our organizations are available to assist to ensure the urgency of these projects is understood in Washington, D.C. and in the State.

We understand the need for additional analysis and the increasing uncertainty of the Terrebonne Basin Barrier Shoreline Project considering the Deepwater Horizon oil spill. Howver, the Deepwater Horizon oil spill has also shown the urgent need to restore and maintain our barrier island chains to protect the interior marshes from multiple threats, including massive oil spills and hurricanes. We request the USACE to distribute an updated timeline for completion to the public and that timeline ensures that this feasibility report is completed at the earliest possible time with the understanding that some details may have to be modified during the engineering, design and construction phase. We request that the Chief's Report also address an extended deadline for the

Terrebonne Basin Barrier Shoreline project that will not be meeting the required WRDA deadline due to these extraordinary circumstances.

We also applaud the USACE and the State of Louisiana for incorporating Monitoring and Adaptive Management Plans at the feasibility stage of project planning. We support the use of project funding to conduct monitoring and expand research and development on these restoration projects to provide lessons learned and flexibility in operations and management. We offer our assistance as the Monitoring and Adaptive Management Plans continue to develop.

Two of the four projects (ARDC Modifications and Atchafalaya to Terrebonne/HNC

Lock) were restricted from providing large scale benefits due to the cost constraints authorized in WRDA 2007. The USACE and State of Louisiana boldly expanded the Medium Diversion at White Ditch beyond its cost authorization to adequately address the sustainability of the study area. We commend the USACE and State for this action. We would have liked to see the same initiative to address the concerns of the Maurepas and Terrebonne Basins. Many large-scale restoration measures were considered in these studies, but dismissed due to costs. The ARDC Modification Project only addressed one of the four identified degraded hydrologic units and the Atchafalaya to Terrebonne/HNC Lock Project only reduces the land loss rate by 10 percent over the 50 year period. Much larger scale restoration in these basins is needed. In these instances, the project did not truly meet the objectives of the project in the entire study area. A phased approach to mixed immentation the day here were the subdy area. A phased approach to project based to the total does not project to the subjectives approach to the subjectives of the project in the entire study area. A phased approach to the project did base restoration to action the subjective and method the activity and method to activity and the strengthere.

project implementation should be provided that evaluates all needed restoration measures to meet the full objectives of the study without any cost constraints, identifies the critical first steps, and identifies phased project implementation based on available funding.

It is imperative that the USACE complete the Feasibility Reports and the Chiel's Report for these LCA projects before the end of the year. Specific comments on each project are enclosed. We believe these comments could be addressed during the engineering, design, construction or adaptive management phases of the projects and will not delay the process.

The undersigned groups welcome the opportunity to discuss our recommendations at any time.

Sincerely,

Coalition to Restore Coastal Louisiana Steven Peyronnin Executive Director

Natalie Snider Science Director

Lake Pontchartrain Basin Foundation John Lopez, Ph.D.

Director of Coastal Sustainability

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Environmental Defense Jim Tripp General Counsel

Angelina Freeman, Ph.D. Coastal Scientist

National Audubon Society G. Paul Kemp, Ph.D. Vice President, Gulf Coast Initiative

National Wildlife Federation Karla Raettig National Campaign Director

cc: Garret Graves, Coastal Protection and Restoration Authority Steve Mathies, Louisiana Office of Coastal Protection and Restoration Timothy Axtman, U.S. Army Corps of Engineers



Medium Diversion at White Ditch LCA Draft Feasibility Report

A key component to restoration of Louisiana's coastal landscape is to reconnect the Mississippi River to the wetlands by mimicking natural processes that use the power of the Mississippi River to build land and maintain ecological integrity including habitats, communities, and storm buffering capacity. We strongly support the Medium Diversion at White Ditch and its objectives to provide freshwater, nutrients and sediments designed to restore degraded habitat and sustain a larger coastal ecosystem to support and protect the environment, economy, and culture of southern Louisiana.

Much has been learned recently about the design and operation of diversions in the Lower Mississippi River for coastal restoration, including the advantages of using pulsing as an operational strategy to maximize sediment capture (Allison and Meselhe, 2010). With rising sea levels and predictions for increased storm frequency/intensity, it is imperative that restoration projects are designed to maximize potential for offsetting projected land loss. Therefore, we commend and support the Tentatively Selected Plan (TSP) incorporating pulsing at 35,000 cfs (cubic feet per second) at high river flows to maximize sediment capture in the planning and operation of the diversion. The minimal amount of shoaling in the river expected from operation of the diversion in a pulsed fashion (1,000 cfs diversion that is pulsed at 35,000 cfs at the beginning of spring flood when suspended sediment concentrations are significantly elevated) is an additional advantage to this operational regime. Designing flexibility into this diversion project by providing pulsing capacity allows adaptation to unforeseen circumstances, as demonstrated by the Deepwater Horizon oil spill where river diversions were used to keep oil at bay. We applaud the Corps for evaluating a pulsed diversion in the analysis, and agree that the pulsed operation of the TSP maintains the medium diversion category authorization

The sediment concentrations in the Mississippi River can vary significantly according to location, and a thorough analysis of site specific data and modeling would improve prediction of sediment efficiency and land building potential relative to diversion locations. Extensive sediment data collection and modeling is being undertaken in the White Ditch reach of the river in support of the Myrtle Grove Land Building Diversion. Using this type of data and modeling results in the benefits and drawbacks of location selection would provide a more robust analysis. We suggest incorporation of this additional data in Planning, Engineering, and Design.

The conveyance channel for the TSP accounts for almost half the total cost for the project. We agree that amending language from House/Senate subcommittees that



adjusts the project as authorized in WRDA 2007 for the increase in construction cost is warranted. However, we recommend reevaluating the conveyance channel and whether natural channel formation can be effectively utilized allowing the engineering to be scaled back (thereby reducing cost) to be investigated in Planning, Engineering, and Design. Natural channel formation could be incorporated into the Monitoring and Adaptive Management Plan and funding for channel modifications could be acquired on an as needed basis as a part of Operations and Maintenance.

References

Allison, M.A. and Meselhe, E.A., 2010. The use of large water and sediment diversions in the lower Mississippi River (Louisiana) for coastal restoration. Journal of Hydrology 387, 346-360. 2. Response: The AM Framework Team does not believe that natural channel formation vs. constructed conveyance channel is an adaptive management component. This is a decision that will further explored by the PDT during PED.

LCA – Medium Diversion at White Ditch
Public Comment
omment: Reasons why this Divergin should not be built is because it will produce to much free water into the estuary consing total distraction to the scatorial industry patientary extern 1 the Magnusson-Stevens Fichery Conservation allowers Act PLLOTS states no Federal project shall cause No Net Loss to marsh extracts no Federal project shall cause No Net Loss to marsh extracts no federal project shall cause No Net Loss to marsh and pack to onig'ned hob tot. This prevent will destroy marsh and pyster beds on the entire EatBank of Plag. Parid Name Kenneth A. Fox Affiliation R. A Oyster Calse Street 3644 Hygg
City, State, Zip Drg. th Weite La 10040
E-mail
www.mvn.usace.army.mil www.lca.gov
postmarked by Jul. 6, 2010.
LCA – Medic a Diversion at White Ditch
1 Fublic Comment
ment: Freshwater Water & Secline + are mandatory for the excisioner of the landwe have estimated the survive. Operations of this structure will be the most important aspect of this project. Lowelion is perfect, because the salimond land in this are is presentiful. Great project to Acquemines
Name Dettine M.Kimble Affiliation PPG- Industry by diversion
Street_10653 Huy 39 Phone 501. 439.02 57
City, State, Zip CARLISIE LA. 70040
E-mail duck gyeen airparta yakoo. com
www.mvn.usace.army.mil www.lca.gov
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- 1. Your statement of opposition is noted.
 - 1. Your statement of support is noted.

1. Comment is noted.

From: Diane Hewitt [mailto:Diane.Hewitt@LA.GOV] Sent: Thu 7/8/2010 2:42 PM To: Dayan, Nathan S MVN Subject: DEQ SOV: 100603/1030 USACE DRAFT EIS - LCA - Vol. VI July 8, 2010 Joan M. Exnicios, Chief USACE Environ. Planning Branch P.O. Box 60267 New Orleans, LA 70160-0267 nathan.s.dayan@usace.army.mil <mailto:nathan.s.dayan@usace.army.mil> RE: 100603/1030 USACE DRAFT EIS - LCA - Vol. VI (on disk) Med. Diversion at White Ditch SEIS Plaquemines Parish Dear Ms. Exnicios: The Department of Environmental Quality (LDEQ), Offices of Environmental Services and Environmental Compliance have received your request for comments on the above referenced project. Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project. There were no objections based on the information in the document submitted to us. However, the following comments have been included below. Should you encounter a problem during the implementation of this project, please notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640. The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project: * If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary. * If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater. * LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permit Division at (225) 219-3181 to determine if your proposed improvements require one of these permits. * All precations should be observed to control nonpoint source pollution from construction activities. * If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly to inquire about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ. * All precautions should be observed to protect the groundwater of the region * Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary. * Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation), and LAC 33:III.S15L.Enission Standard for Asbestos for any renovations or demolitions. * If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents

Currently, Plaquemines Parish is classified as an attainment parish with the National Ambient Air Quality Standards. Please forward all future requests to Ms. Diane Hewitt, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301, and your request will be processed as quickly as possible. If you have any questions, please feel free to contact me at (225) 219-4079 or by email at diane.hewitt@la.gov <mailto:diane.hewitt@la.gov . Permitting questions should be directed to the Office of Environmental Services at (225) 219-3181. Sincerely, Diane Hewitt Performance Management LDEQ/Community and Industry Relations Business and Community Outreach Division Office of the Secretary P.O. Box 4301 (602 N. 5th Street) Baton Rouge, LA 70821-4301 Phone: 225-219-4079 Fr: 225-325-8208 E-mail: diane.hewitt@la.gov United States Department of Agriculture

Network
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In response to your request for NRCS evaluate the LCA Medium Diversion at White Ditch site location to identify impacts to prime farmland, I have reviewed Farmland Classification for this area. All of the soils within the project area are classified as "Not Prime Farmland". Therefore, the activities associated with the project are not subject to the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle 1 of Title XV, Section 1539-1549

A completed *Form AD-1006 – Farmland Conversion Impact Rating* is included with this response. The farmland classification report is also attached.

Respectfully,

ACTING FOR Sauch Hymeeler

Kevin D. Norton State Conservationist

Attachment

cc: Michael C. Trusclair, DC, FO, NRCS, Boutee, LA

1. Confirmation from NCRS that no prime farmland will be impacted by the proposed project and copy of AD 1006 with Section II completed.

Helping People Help the Land An Equal Opportunity Provider and Employer

Name of Project: LCA Medium Diversion at Wh Proposed Land Use: Natural area - fish and wi PART II (To be completed by NRCS) Does the sile contain Prime, Unique, Statewid (If no, the FPPA does not apply - do not comp Major Crop(s)	ite Ditch F Idife habitat D e or Local Important Farmland? lete additional parts of this form	Federal Agence County and S Date Request I O- 6/18/10; S YES	cy Involve tate: Plac Received O- 7/7/10 NO	d: U.S. Army quemines Pari By NRCS	Corps of Eng sh, LA Person C	ineers ompleting Fo			
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Does the site contain Prime, Unique, Statewid (If no, the FPPA does not apply - do not comp Major Crop(s)	e or Local Important Farmland? lete additional parts of this form)	0- 6/18/10; S YES	O- 7/7/10 NO		Jarny J. F		Person Completing Form:		
(If no, the FPPA does not apply - do not comp Major Crop(s)	lete additional parts of this form)		140	Jerr		erry J. Daigle, State Soil Scienti			
Major Crop(s)	Enomable Land In Cost I had			Acres	rigated	Average	Farm Size		
	Familiable Land in Govr. Jun	able Land In Govt. Jurisdiction		Amount of Farmland As Defined in FPPA			004		
	Acres:			Acres:					
Name of Land Evaluation System Used	Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS						
				July 16, 2010					
PART III (To be completed by Federal Agence	RT III (To be completed by Eederal Agency)			Alternative Site Pating					
				Site A Site B Site C Site			Site D		
A. Total Acres To Be Converted Directly				144.0	159.0	203.0	284.0		
B. Total Acres To Be Converted Indirectly									
C. Total Acres In Site				144.0	159.0	203.0	284.0		
I to be completed by NRCS) Land E	valuation Information								
A. Total Acres Prime And Unique Farmland									
B. Total Acres Statewide Important or Local Im	portant Farmland								
C. Percentage Of Farmland in County Or Loca	I Govt. Unit To Be Converted								
D. Percentage Of Farmland in Govt. Jurisdiction	in With Same Or Higher Relative	Value					-		
PART V (To be completed by NRCS) Land Ex Relative Value of Farmland To Be Conv	valuation Criterion rerted (Scale of 0 to 100 Points)								
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106) Points				Site A	Site B	Site C	Site D		
1. Area In Non-urban Use		(15)						
2. Perimeter In Non-urban Use		(10)						
3. Percent Of Site Being Farmed		(20))						
4. Protection Provided By State and Local Gor	vernment	(20))						
5. Distance From Urban Built-up Area		(15))						
6. Distance To Urban Support Services		(15))						
7. Size Of Present Farm Unit Compared To Av	verage	(10))						
8. Creation Of Non-farmable Farmland		(10))						
9. Availability Of Farm Support Services		(5)							
10. On-Farm Investments		(20))						
11. Effects Of Conversion On Farm Support Services)						
12. Compatibility With Existing Agricultural Use		(10))						
TOTAL SITE ASSESSMENT POIN		160)						
ART VII (To be completed by Federal Age	ncy)								
Relative Value Of Farmland (From Part V)									
Relative value of Farmland (From Part V)	Total Site Assessment (From Part VI above or local site assessment)								
Total Site Assessment (From Part V) above or	local site assessment)	100							
Total Site Assessment (From Part V) Total Site Assessment (From Part V) above or TOTAL POINTS (Total of above 2 lin	local site assessment)	260)						
Total Site Assessment (From Part V) Total Site Assessment (From Part V) Total Site Assessment (From Part V) Total of above 2 lin ite Selected:	local site assessment)	260)	Was A Loca	Site Assess	ment Used?			





Farmland Classification-Plaquemines Parish, Louisiana

LCA Medium Diversion at White Ditch - Plaquemines Parish, LA

Farmland Classification

Farmland Classification— Summary by Map Unit — Plaquemines Parish, Louisiana								
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI				
CE	Clovelly muck	Not prime farmland	518.7	64.5%				
CV	Carville, Cancienne, and Schriever soils, frequently flooded	Not prime farmland	2.9	0.4%				
GE	Gentilly muck	Not prime farmland	83.3	10.4%				
Sk	Schriever clay	All areas are prime farmland	10.9	1.4%				
N	Water	Not prime farmland	170.5	21.2%				
Nw	Westwego clay	Not prime farmland	17.4	2.2%				
otals for Area of In	nterest	803.7	100.0%					

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary Tie-break Rule: Lower

Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 7/16/2010 Page 3 of 3



1. Comment on cultural resources report submittal indicating that the project location exists beyond their scope of interests and therefore no impacts to tribal assets are anticipated.



SCOTT ANGELLE LIEUTENANT GOVERNOR

State of Louisiana Office of the Lieutenant Governor Department of Culture, Recreation & Tourism Office of Cultural Development

PAM BREAUX

SECRETARY

July 21, 2010

Ms. Joan Exnicios Environmental Planning and Compliance Branch New Orleans District, Corps of Engineers P.O. Box 60267 New Orleans, LA 70160-0267

Re: Management Summary of Phase I CRM Investigations LA Division of Archaeology Report No. 22-3516 Management Summary: Phase I Cultural Resources Investigations of the White Ditch Diversion Area, Plaquemines Parish, Louisiana R. Christopher Goodwin and Associates, Inc.

Dear Ms. Exnicios:

We are in receipt of your letter dated June 16, 2010, transmitting two copies of the above-cited report. We have completed our review and have the following comments to offer.

We concur with the findings presented in the management summary that four archaeological sites have been found within the project area for construction of a medium diversion area in Plaquemines Parish and the recommendations made in the report regarding each site. Namely, site 16PL15 lacks sufficient integrity to be eligible for the National Register of Historic Places (NRHP); 16PL16's eligibility for the NRHP is currently undetermined due to the presence of human remains that has thus far precluded subsurface investigations, 16PL193 is not eligible for the NRHP; and 16PL194 is also not eligible for the NRHP. In addition, the report considered the disputed location of French Fort De La Boulaye (16PL27), a National Historic Landmark. The project for which these investigations were conducted will not impact the originally reported site of this fort.

Technical comments concerning several items are included with this letter. Please address these as appropriate in the preparation of the draft report for this project and transmit two copies for our further review and comments. In addition, all site forms and site update forms submitted to the Louisiana Division of Archaeology must be accepted before a report can be finalized. Should you have any questions concerning our current comments, do not hesitate to contact Dennis Jones in the Division of Archaeology at (225) 342-6932 or by email at <u>djones@crt.state.la.us</u>.

RO. BOX 44247 • BATON ROUGE, LOUIBIANA 70804-4247 • PHONE (225) 342-8200 • FAX (225) 219-9772 • WWW.CRT.BTATE.LA.US AN EQUAL OPPORTUNITY EMPLOYER 1. The SHPO concurs with the findings in the LA Division of Archeology Report No. 22-3516, *Management Summary: Phase I Cultural Resources Investigations of the White Ditch Diversion Area, Plaquemines Parish, Louisiana,* R. Christopher Goodwin and Associates, Inc.