

## **Appendix C**

### **NOAA Fisheries Service Coordination Letter**



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13th Avenue, South  
St. Petersburg, Florida 33701

January 26, 2010 F/SER46/RH:jk  
225/389-0508

Mr. James F. Boggs, Supervisor  
Louisiana Field Office  
U.S. Fish and Wildlife Service  
646 Cajundome Blvd., Suite 400  
Lafayette, Louisiana 70506

Dear Mr. Boggs:

NOAA's National Marine Fisheries Service (NMFS) has received your letter dated January 13, 2010, providing planning aid comments on the Louisiana Coastal Area, Medium Diversion at White Ditch project. Your letter provided a brief description of the resources in the project area and the alternatives that were considered. As was described in your letter, the Corps of Engineers has selected the 35,000 cubic feet per second (cfs) diversion as the tentatively selected plan.

Your letter transmitted a number of fish and wildlife conservation measures and recommendations. The second measure pertained to a recommendation to undertake modeling to simulate changes in nekton community composition based on predicted changes in salinity. Considering that the tentatively selected plan is more than four times larger in the quantity of diverted water during high flow periods than any river diversion constructed in Louisiana to date, NMFS concurs with that recommendation to assess the individual effects of this project along with those cumulatively in the Breton estuary. Lacking such a modeling effort, NMFS is concerned that any evaluation of likely impacts to be undertaken in the environmental impact statement would not be based on the best available science.

The second recommendation specifically identified the Ecopath/Ecosim model being used to simulate changes in the nekton community in the vicinity of the Caernarvon diversion. NMFS agrees that the Ecopath/Ecosim/Ecospace model has utility in this area to predict changes in fishery standing crop and productivity that could result from the installation and operation of a 35,000 cfs diversion near White Ditch. Other models such as the Comprehensive Aquatic Systems Model and to a lesser extent species specific Individual Based Models also have utility to predict changes in fishery communities that could occur from project implementation. Each of these three is being run for the Caernarvon project and therefore the time and cost may not be exorbitant to run them for this project. On a similar parallel path, statistical analysis of Louisiana Department of Wildlife and Fisheries fisheries independent data would allow for hindcasting and establishment of baseline conditions. As such, NMFS recommends those models and the dual, parallel path of statistical analysis of fisheries independent data be identified as alternative analytical methods in this recommendation, as well. Although this information is preferred to




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make a reasoned choice among alternatives, a commitment by the Corps of Engineers to obtaining output from one or more of these methods for use in the Planning, Engineering, and Design phase to develop an operation plan and apply thereafter under an adaptive management plan is as acceptable. We recommend this option be identified.

NMFS appreciates the opportunity to provide comments on the planning aid recommendations you have provided in your letter. Other than the suggested revision to recommendation #2, NMFS concurs with the remaining comments and measures.

Sincerely,



 Miles M. Croom  
Assistant Regional Director  
Habitat Conservation Division

c:  
LA DNR, Consistency, Ducote  
USACE, Planning, Dayan  
F/SER46, Swafford  
Files



**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13<sup>th</sup> Avenue South

St. Petersburg, Florida 33701

February 10, 2009 F/SER46/RH:jk  
225/389-0508

Ms. Elizabeth Wiggins, Chief  
Environmental Planning and Restoration Branch  
New Orleans District  
Department of the Army, Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

Dear Ms. Wiggins:

NOAA's National Marine Fisheries Service (NMFS) has received the public notice advertising a scoping meeting to be held for the Louisiana Coastal Area (LCA), Louisiana; Medium Diversion at White Ditch project. According to the public notice, the U.S. Army Corps of Engineers (COE) intends to undertake a feasibility study and prepare a supplemental environmental impact statement (SEIS) to evaluate a controlled diversion of 5,000 to 15,000 cubic feet per second (cfs) of Mississippi River water into the River aux Chenes area in Plaquemines Parish, Louisiana. This SEIS will be tiered off a programmatic EIS completed for the Louisiana Coastal Area Ecosystem Restoration Study completed in November 2004. The COE has requested the public and natural resource agencies provide recommendations on: 1) the environmental problems and needs that should be addressed in the document; 2) the important resources in the project area; and, 3) reasonable restoration alternatives to be considered in the feasibility study and SEIS.

Aquatic and tidally influenced wetland habitats in portions of the study area are designated as essential fish habitat (EFH) for various federally managed species, including white shrimp, brown shrimp, red drum, lane snapper, dog snapper, and Gulf stone crab. These species are managed by the Gulf of Mexico Fishery Management Council (GMFMC). The attached table lists life stages and subcategories of EFH for these species that would potentially be benefitted or impacted by this project. Primary categories of EFH in the study area include estuarine emergent wetlands; submerged aquatic vegetation; mud, sand and shell substrates; and estuarine water column. Detailed information on federally-managed fisheries and their EFH is provided in the 2005 generic amendment of the FMPs for the Gulf of Mexico prepared by the GMFMC. The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, P.L. 104-297).

In addition to being designated as EFH for the species listed in the attached table, water bodies and wetlands in the study area provide nursery and foraging habitats supportive of a variety of economically important marine fishery species, such as striped mullet, Atlantic croaker, gulf menhaden, spotted seatrout, sand seatrout, southern flounder, black drum, and blue crab. Some of these species also serve as prey for other fish species managed under the Magnuson-Stevens



Act by the GMFMC (e.g., mackerels, snappers, and groupers) and highly migratory species managed by NMFS (e.g., billfishes and sharks).

NMFS recommends the SEIS include separate sections titled “Essential Fish Habitat” and “Marine Fishery Resources” that identify the EFH and fisheries resources of the study area. These sections should describe the potential impacts, both positive and negative, to those resources that could be caused by the proposed river diversion. While NMFS believes that overall project implementation could be beneficial to protecting and restoring EFH and to maintaining the productivity of marine fishery resources, there are some potential localized adverse impacts to marine fishery productivity that could be caused by structure operations, especially during high flow periods. These impacts include: 1) displacement of less freshwater tolerant, or cold water intolerant, marine fishery species from large areas of wetlands and water bodies that serve as nursery and foraging areas; 2) destruction of productive oyster reefs that serve as habitat and a food source for some fishery species; 3) increased turbidity and associated decreases in coverage of submerged aquatic vegetation in some areas; and, 4) potential low dissolved oxygen levels in area water bodies caused by decomposition of large quantities of algae and/or phytoplankton resulting from high nutrient levels in diverted river water. The EFH and marine fishery resource sections of the SEIS should evaluate the potential for any or all of these impacts to occur as a result of the proposed diversion. NMFS recommends these sections of the document also discuss the potential beneficial effects of the proposed diversion on EFH and marine fishery resources. These effects include the maintenance of marsh habitats through the accretion of sediment and input of beneficial nutrients.

The EFH and marine fishery resources sections of the document also should describe and quantify the potential impacts and benefits of the proposed activities on EFH sub-categories (e.g., marsh, marsh edge, submerged aquatic vegetation/seagrass beds, mud bottoms, oyster reefs, and estuarine water column). The appropriate sections should describe the potential impacts and benefits of the diversion on the utilization of these sub-categories of EFH by those fishery species and life stages included in the enclosed table. The SEIS should evaluate alternatives to any activities that would result in an adverse impact to those resources to determine if there are less damaging methods to achieve the same result. The overall net benefits of the project on wetland habitats supportive of marine fishery resources should not preclude efforts to minimize the negative impacts of river diversion on fishery resources. Such alternatives to minimize adverse impacts of maximize beneficial effects includes: 1) reduced fresh water inflows during low river stages and periods less fresh water tolerant species may be found in the project area; 2) direct placement of sediment into the outflow channel during high flow periods to maximize delivery to area marshes; and, 3) placement of marsh terraces or silt fences to help trap sediments and reduce turbidity.

NMFS recommends the SEIS include a section titled “Cumulative Impacts” that evaluates project impacts and benefits with other similar projects proposed for, or implemented, in the area. Presently, the existing Caernarvon diversion located near Braithwaite can divert up to 8,000 cfs into the Breton Sound basin. In addition, Section 3083 of the Water Resources Development Act of 2007 authorized a river diversion at or in the vicinity of Violet, Louisiana. A 2,000 cfs diversion in the vicinity of Bertrandville and a project to replace and add siphons at White Ditch also are being designed under the auspices of the Coastal Wetlands Planning,

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Protection and Restoration Act (CWPPRA). Although the latter two projects have yet to receive construction authorization, we recommend the cumulative impact section include them because they have been authorized under various COE programs and would impact/benefit the same general area. The SEIS should evaluate the relative need for 5,000 to 15,000 additional cfs into this area if the two CWPPRA projects are constructed. Considering that the four diversions identified in this project would impact large areas of the Breton Sound estuary, the SEIS should evaluate the cumulative impacts, including beneficial effects, of multiple diversions of Mississippi River waters on resources of concern.

Please note that our Protected Resources Division is responsible for all issues regarding threatened and endangered species and marine mammals for which NMFS is responsible. For information regarding those resources, please contact Mr. David Bernhart of our Protected Resources Division at (727) 824-5312. For additional information regarding EFH, marine fisheries, or National Environmental Policy Act issues, please contact Mr. Richard Hartman of our Habitat Conservation Division, Baton Rouge Office at (225) 389-0508, ext 203.

Sincerely,



for Miles M. Croom  
Assistant Regional Administrator  
Habitat Conservation Division

Enclosure

c:  
FWS, Lafayette  
EPA, Dallas  
LA DNR, Consistency  
F/SER46, Swafford  
F/SER3, Bernhart  
Files

**EFH Requirements for Species Managed by the Gulf of Mexico Fishery Management Council: Ecoregion 3, Pensacola Bay, FL to Mississippi River Delta (South Pass) that occur in the study area.**

Species	Life Stage	System <sup>a</sup>	EFH
Brown shrimp	larvae	M	<82 m; planktonic, sand/shell/soft bottom, SAV, emergent marsh, oyster reef
	juvenile	E	<18 m; SAV, sand/shell/soft bottom, SAV, emergent marsh, oyster reef
White shrimp	juvenile	E	<30 m; SAV, soft bottom, emergent marsh
Gulf stone crab	eggs	E/M	<18 m; sand/shell/soft bottom
	larvae/postlarvae	E/M	<18 m; planktonic/oyster reefs, soft bottom
	juvenile	E	<18 m; sand/shell/soft bottom, oyster reef
Red drum	larvae/postlarvae	E	all estuaries planktonic, SAV, sand/shell/soft bottom, emergent marsh
	juvenile	E/M	GOM <5 m W from Mobile Bay; all estuaries SAV, sand/shell/soft/hard bottom, emergent marsh
	adults	M/E	GOM 1-46 m W from Mobile Bay; all estuaries SAV, pelagic, sand/shell/soft/hard bottom, emergent marsh
Lane snapper	larvae	E/M	4-132 m; reefs, SAV
	juvenile	E/M	<20 m; SAV, mangrove, reefs, sand/shell/soft bottom
Dog snapper	juvenile	E/M	SAV, mangrove, emergent marsh

<sup>a</sup> E=estuarine, M=marine