

US Army Corps of Engineers® New Orleans District

SCOPING REPORT

Louisiana Coastal Area (LCA), Modification of Caernarvon Freshwater Diversion Feasibility Study

December 2009

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1.0 INTRODUCTION

The National Environmental Policy Act (NEPA) of 1969 established a nationwide policy to include in every recommendation or report on proposals for major Federal actions significantly affecting the environment, a detailed statement of the environmental impact of the proposed action. Such detailed statements are referred to as environmental impact statements (EIS).

The U.S. Army Corps of Engineers (USACE), New Orleans District (CEMVN) published a notice of intent (NOI) to prepare a draft supplemental EIS for the Louisiana Coastal Area (LCA) Modification of Caernarvon Diversion (MCD) Ecosystem Restoration Feasibility Study was published in the *Federal Register* (volume 74, number 177) on September 15, 2009.

The purpose of the NOI is to announce the Corps' intention to prepare a draft supplemental EIS that addresses the Modification of the Caernarvon Diversion Project, which was identified in the LCA Ecosystem Restoration Plan as a near-term critical restoration project.

The NEPA provides for an early and open public process for determining the scope of issues, resources, impacts, and alternatives to be addressed in the supplemental EIS. This process is referred to as scoping. Scoping meeting announcements were advertised in two area newspapers leading up to the meeting date. The meeting was held on Thursday, October 8, 2009, in Braithwaite, Louisiana.

This scoping report outlines the project background and scoping process to date, and summarizes the key issues identified by members of the public during the initial scoping period. Section 5.0 of this report contains a detailed analysis of the comments received. The top five themes identified by members of the public include:

- Pipe in sediment from Mississippi River or other borrow sites in basin to restore and nourish marsh.
- Redistribute freshwater to the east and west into marsh areas that currently do not receive flows.
- Modify the Caernarvon Diversion operational plan to include pulsing to mimic historic Mississippi River flooding conditions. (Currently in the Operational Plan)

- Construct shoreline stabilization.
- Restore the barrier islands.

2.0 STUDY AUTHORITY

The Water Resources Development Act of 2007, Section 7006 (e)(1)(D).

3.0 PROPOSED ACTION

The Caernarvon Diversion structure, constructed in 1991 in upper Breton Sound Basin, has a maximum operating capacity of 8,000 cfs. The structure has been operated as a salinity management feature, with freshwater introductions from the Mississippi River ranging from 1,000 cfs up to 8,000 cfs averaging 4,000 cfs, to this point in time, considerably less than half of the structure's capacity.

The MCD feasibility study is designed to address coastal restoration problems and opportunities in the project area based on guidance from the LCA Ecosystem Restoration Study completed in 2004. Specifically, to assess changes in the operation to increase restoration outputs.

Construction of the Mississippi River levee has effectively stopped annual spring flooding that, in the past, had nourished Breton Sound with sediment, nutrients and freshwater.

Additional freshwater should improve biological productivity and help reverse the current trend of degradation, thus restoring wetland habitat.

The goal of this project is to reverse the trend of degradation in the southeast portion of the Breton Sound to contribute to a sustainable coastal ecosystem that can support and protect the environment, economy and culture of southern Louisiana and the nation.

Project Objectives – The primary goal of the Caernarvon Modification Project is to assess changes in the Caernarvon project to increase wetland creation and restoration outputs that will contribute towards achieving and sustaining a coastal ecosystem that can support and protect the environment, economy, and culture of southern Louisiana and thus contribute to the well-being of the Nation. Specific objectives include:

- Minimize future land loss and increase sustainability
- Improve the habitat conditions for fish and wildlife to enhance the biological productivity
- Improve existing hydrology including water quality, hydrologic functions, and circulation patterns
- Redistribute sediment and freshwater to interior marshes across the Breton Sound Basin

The overarching goal of the LCA Ecosystem Restoration Plan is to reverse the current trend of degradation of the coastal Louisiana ecosystem by maximizing the use of restoration strategies to reintroduce historic flows of water, nutrients, and sediment to coastal wetlands, and to maintain the structural integrity of the coastal ecosystem.

4.0 SCOPING PROCESS

NEPA affords all persons, organizations and government agencies the right to review and comment on proposed major Federal actions that are evaluated by a NEPA document. This is known as the "scoping process." The scoping process is the initial step in the preparation of the EIS and will help identify (1) the range of actions (project, procedural changes) (2) alternatives (both those to be rigorously explored and evaluated and those that may be eliminated), and (3) the range of environmental resources considered in the evaluation of environmental impacts.

A scoping meeting announcement requesting comments regarding the scope of the Caernarvon Diversion Modification was sent to Federal, state, and local agencies; and interested groups and individuals on October 2 and October 6, 2009. The media advisory announcing the scoping meeting was provided to 262 media outlets. An advertisement for the public scoping meeting appeared in the following publications:

- The Times-Picayune, October 1, 4, & 6, 2009
- St. Charles Herald Guide, October 1, 2009
- St. Bernard Voice, October 2, 2009
- Plaquemines Gazette, October 6, 2009
- NOLA.com, September 18, 2009 to October 8, 2009

The public scoping meeting was held on:

Thursday, October 8, 2009 Lynn Oaks School 1 Lynn Oaks Dr. Braithwaite, LA 70040

The schedule for the scoping meeting was:

•	6:00 – 7:00 p.m.	Open House
٠	7:00 – 7:30 p.m.	Presentations
٠	7:30 – 8:00 p.m.	Question and Answer Session
٠	8:00 – 8:50 p.m.	Open Forum for Comments
٠	8:50 – 9:00 p.m.	Wrap-up

The open house session provided attendees with an opportunity to visit a series of poster stations staffed by project team members and subject matter experts regarding the following topics: the LCA plan, the NEPA process and milestones, an overview of the study and its goals and objectives, as well as maps of the study area.

Following the open house, there was a brief presentation on the LCA project planned for the area and a description of the NEPA process. During this segment, the LCA Environmental Manager and both the USACE MVN Project Managers and the Louisiana Office of Coastal Protection and Restoration presented introductory remarks, including the agenda, purpose of the meeting, public involvement under NEPA, a brief history leading to the study, the scope of the analysis, and the intent to prepare a supplemental EIS for the Modification of Caernarvon Diversion.

The question and answer portion focused on the explaining the study process and responding to general questions presented by meeting attendees. Following this portion scoping comments were accepted. Individuals were invited to present their verbal and/or written scoping comments to be recorded without interruption. This portion of the meeting continued until no further scoping comments were offered.

During the wrap-up, attendees were reminded to pick up self mailing comment cards, should they wish to submit additional comments at a later date, and to drop off the meeting evaluation forms at the registration table.

This Scoping Report presents and summarizes the scoping comments expressed at the public scoping meeting, as well as all other scoping comments received during the comment period beginning September 11, 2009 through November 9, 2009. This Scoping Report indicates where in the supplemental EIS individual comments would likely be addressed. This Scoping Report will be provided to all scoping participants who provided their addresses, and will also be published on the NOLA Environmental web site (www.nolaenvironmental.gov). A transcript of comments made at the scoping meeting was prepared by a certified court reporter.

5.0 SCOPING MEETING COMMENTS

Scoping comments document the public's concerns about the scope of the proposed course of action as well as identify significant resources and suggested alternatives. Scoping comments will be considered during the study process and in preparation of the draft EIS. A total of 49 participants signed in for the scoping meeting in Braithwaite, Louisiana.

A total of 18 multi-part comments were received during the comment period. Nine individuals expressed comments at the Braithwaite scoping meeting. A total of 6 written comments were received during the comment period. There were 3 scoping comment cards and 3 scoping comment letter. There were no scoping comments submitted via e-mail or the Web site for this study.

A scoping comment may contain several specific comments directed at multiple areas of concern. Hence, a single comment could potentially be generally addressed in multiple sections of the draft EIS. A total of 47 specific comments were expressed.

The comments were categorized according to their applicability to the EIS. EIS categories include: Purpose and Need; Alternatives; Affected Environment; Environmental Consequences; and Consultation, Coordination, and Compliance with Regulations. An individual scoping

comment may be categorized under more than one EIS subject matter heading, but no one comment was assigned to more than three categories.

Purpose and Need

The most common comment received indicated the need for pumping sediment to nourish and restore the marsh "I would suggest that other types of projects are needed, kind of an array of things are needed, maybe to pump sediment, maybe to do shoreline stabilization"; "Pump that damn thing in so we can get our marsh back, so we can provide a safe haven for this parish for a line of defense." "That siphon was never designed to bring in sediment. It's not designed in the river to bring in sediment. It was strictly a freshwater diversion." Some concerns voiced by land managers indicated that the habitat switching from brackish marsh to fresh marsh has weakened there land "Vegetation in the brackish marsh is gone, it's weakened. Keeping the water in the marsh floated it. When the storm comes, you have tremendous damage that you wouldn't normally have if you had good brackish marsh with roots into the ground. You've got to create an environment that keeps the storms from destroying it which means you've got to have vegetation that won't get killed by saltwater. You would either pump it in to build some marsh or something."

Alternatives

Concerns related to sediment pumping, barrier island restoration, and shoreline stabilization dominated the comments received in this category. "Well, they've got to get some sediment closer to the bottom of the river to flow in there to bring sediment into the marshlands, and without that the project might as well be closed."; "I would suggest that other types of projects are needed, kind of an array of things are needed, maybe to pump sediment, maybe to do shoreline stabilization, because the Caernarvon diversion, by itself isn't going to be sufficient."; "Who's going to put this land back? There's one way. You have dredges sitting right up here where this gentleman works, sitting there doing nothing. Pump that damn thing in so we can get our marsh back, so we can provide a safe haven for this parish for a line of defense."; "This structure is meant for freshwater. It was built to control the salinity. We need flood protection, but this won't give it to us. We need barrier islands and that's our first line of defense."; and "The best results of the outflow were when rates were increased in the late winter and spring to take advantage of silt flow. The pulse rates of 7-10 days and closing were the most effective, not running during the summer and fall allows plants to develop root systems and germinate."

Affected Environment

The majority of comments received in this category concerned marsh loss and oyster loss issues. "When it came to open it, about three years, we had abundant rain years. We didn't need no Caernarvon, as far as the oyster industry was concerned. The oyster industry was the only one against changing the operation of this thing, and now I see a lot of people in line behind me. Not only oyster people took a loss, landowners took a worse loss than us. When they decided to run this thing at 8,000 we seen the marsh wash away. We seen it destroyed. Running it wide open is not the answer. You kill all the oysters. You ruin all the resources, shrimp. Everything takes a beating when you run it wide open.", and "For quite a few years, they ran so much water back there that it stayed over the prairie constantly. Well, with the siphons, like they're saying they're keeping that water in there so long and kept it over the prairie, it's just killed the root system. You kill it and all you've got is a floton. After a while, it ain't no more floton. It just breaks up."

Environmental Consequences

Some concerns were raised regarding the proposed action's impact on area wildlife. Pallid Sturgeons, Gulf sturgeons, the Bald Eagle and Colonial Nesting Waterbirds were mentioned as sensitive receptors in the area. "*Regarding the Bald Eagle: Disturbance may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements.*" Consult National Bald Eagle Management Guidelines to minimize potential impact." Some comments were also related to drainage issues. "My concern is that it would be fighting the natural drainage that wants to come off of high ground. And with that, you would stifle the flushing effect that needs to happen in these canals, bringing off all the pollutants coming off the occupied areas up in here."

Consultation, Coordination, and Compliance with Regulations

Some agency concerns indicated the need to address specific fishery resource sections "National Marine Fisheries Service recommends the Supplemental Environmental Impact Statements include separate sections titled "Essential Fish Habitat" and "Marine Fishery Resources" that identify the EFH and fisheries resources of the study area and describe the potential impacts and benefits to those resources that could be caused by various activities to be described and evaluated in the documents. Potential direct adverse impacts of project implementation could result from diverted waters changing isohalines in receiving basins, thereby altering distribution patterns for those fishery species or life stages that are less tolerant of fresh water conditions. If changing isohalines cause fishery species to move to habitats providing less protection from predation or less supportive in terms of growth and survival, reduced fishery production of that species could result. Potential direct beneficial effects could result from providing nutrients supportive of plankton and plant growth, both vital components of the aquatic food web. The nutrients also could help support plant growth and reduce wetland loss rates. The SEISs should evaluate such potential benefits of river diversions in light of predicted future sea level rise rates. The EFH and marine fishery resources sections of the documents also should describe and quantify the potential impacts and benefits of the proposed activities on EFH sub-categories (e.g., marsh, marsh edge, mud bottoms, submerged aquatic vegetation, and estuarine water column). The SEISs 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."

Table 1 displays the categorization of specific comments by EIS subject matter. The most comments were expressed regarding Alternatives followed by Affected Environment; Environmental Consequences; and Purpose and Need and Consultation, Coordination and Compliance with Regulations.

Table 1. Categorization of Scoping Comments by Draft EIS Subject Matter. PN = Purposeand Need, ALT = Alternatives, AE = Affected Environment, EC = EnvironmentalConsequences, and CC = Consultation, Coordination, and Compliance with Regulations.

Source of Scoping Comment	PN	ALT	AE	EC	CC	Totals
Scoping Meeting	3	8	10	15	1	37
Scoping Comment Cards	1	2	0	0	0	3
Scoping Comment Letters	2	4	11	6	2	25
Totals	6	14	21	21	3	65

NOTE: A single scoping comment may be categorized under multiple DPEIS subject matter *headings.*

Table 2. summarizes each scoping comment and indicates by EIS subject matter, where an individual comment would likely be addressed in the draft EIS. EIS categories include: Purpose and Need for Action; Alternatives; Affected Environment; Environmental Consequences; and Consultation and Coordination. Compliance with Regulations (Federal, state and local environmental laws and regulations) is also included in this latter category. An individual scoping comment may be categorized under more than one EIS subject matter heading.

6.0 SCOPING PARTICIPANTS

Approximately 49 people attended the Modification of Caernarvon Diversion scoping meeting. These included, but were not limited to, private citizens, industry stakeholders, nongovernmental organizations and political representatives. Names of those who signed in are listed below; names in bold indicate individuals who provided scoping comments:

October 8, 2009 - Braithwaite, LA

Dan Arcenaux	John Lopez	Jamie Favorite
Mike Benge	Andrew MacInnes	John Gordon
Tone Bernard	Summer Martin	George Griffen
Louis Berrett	William McCartney	Rusty Guade
Barry Bleichnez	Michael Metzger	Henderson
Cory Buck	Amanda Moore	Joe Henn
Howard J. Callahan	Benny Roussells	Bren Hoase
Brett Carreras	Kenneth Savastano	Joseph House
Kenneth Fox	Laura Sanchez	Keith Ibos
David Dawson	Leonel Serpas	Tim Jarquin
Troy Dean	Catherine Serpas	Bill Kappel
Jim Delery	Craig Taffaro	Kimble
Reagan Efold	Kevin Tamor	Paul & John Lagarde
Fred Everhardt	John Tesvich	Wayne Laury
Michael Farizo		Charles Leon

PEIS Section Where Comment Addressed	SCOPING COMMENT	
# PN ALT AE EC CC		

Scoping Meeting Comments

1		x	Σ	X X	 Mr. Dan Arceneaux, Chairman of the St. Bernard Parish Coastal Zone Advisory Committee, comments: (1) The most important issues impacted at Caernarvon was one of freshwater diversion, and all it's done in the past has ruined the whole marsh area, because freshwater doesn't bring any sediments to the marsh., and I say flowing at 8,000 or whatever it is, all it does is wash marsh away. (2) Well, they've got to get some sediment closer to the bottom of the river to flow in there to bring sediment into the marshlands, and without that the project might as well be closed.
2	х	X		ζ	 Mr. Fred Everhardt, District E Councilman, St. Bernard Parish, comments: (1) My two main concerns with the siphon is economic impact loss to the commercial fisherman and the land loss that we have. Over the last shrimp season we were showing plenty of brown shrimp in the Caernarvon area and we had kept it closed, on a low cfm. Two dealers in Delacroix Island caught over 100,000 pounds of shrimp in one month. When they opened that up, it dropped down to hardly nothing. That's your economic impact loss on your fishing industry. (2) That siphon was never designed to bring in sediment. It's not designed in the river to bring in sediment. It was strictly a freshwater diversion. Common sense will tell you that canal is not long enough, and the freshwater does not reach Black Bay. (3) If you want to do good out there and protect and make this thing work and control salinity, you have to put pipes in that channel there, across that marsh, and distribute that freshwater out into the areas that need it the most. (4) All I want is a voice in this thing so I can work with my commercial fishermen and let's try to pump some sediment in there, because that siphon is not designed for sediment. It's designed just to catch freshwater.
3		X	X X X	K	 Mr. John Lopez, Lake Pontchartrain Basin Foundation, comments: (1) I think the most important issue is to try and maintain the emergent marsh out here in this area. (2) The structure can deliver sediment, I think, depending on how you operate it, you can deliver more sediment and you can also manage where that sediment goes. (3) I would suggest that other types of projects are needed, kind of an array of things are needed, maybe to pump sediment, maybe to do shoreline stabilization, because the Caernarvon diversion, by itself isn't going to be sufficient.

		IS Section Where mment Addressed			-	SCOPING COMMENT
#	PN	ALT	AE	EC	CC	
4		x	X X			 Mr. John Tesvich, Louisiana Oyster Dealers and Growers Association, comments: (1) I didn't see any proposal here tonight as far as what are you looking at doing. You're saying you want to change the flow rates, but we don't know what. What I feel is that the public is led to believe more freshwater or flood protection is good. We all want flood protection, but what we're not being told is that Caernarvon is not meant for flood protection. (2) This structure is meant for freshwater. It was built to control the salinity. We need flood protection, but this won't give it to us. We need barrier islands and that's our first line of defense.
5			x x	Х		 <i>Kenny Fox, CIAC Board comments:</i> (1) I've been an oyster fisherman for a little over 50 years, and I've seen the good times and bad times. We were under the impression that we did need some freshwater at times. When Mother Nature didn't provide it, if we could influence the area with a little bit of freshwater, that would help us. (2) A lot of studies was done before this thing was completed on how to operate it, and it was supposed to be operated on a salinity basis. When it came to open it, about three years, we had abundant rain years. We didn't need no Caernarvon, as far as the oyster industry was concerned. The oyster industry was the only one against changing the operation of this thing, and now I see a lot of people in line behind me. Not only oyster people took a loss, landowners took a worse loss than us. When they decided to run this thing at 8,000 we seen the marsh wash away. We seen it destroyed. Running it wide open is not the answer. You kill all the oysters. You ruin all the resources, shrimp. Everything takes a beating when you run it wide open.
6	X		Х	X X		 Mr. Paul Lagarde, landowner, comments: (1) For quite a few years, they ran so much water back there that it stayed over the prairie constantly. Well, with the siphons, like they're saying they're keeping that water in there so long and kept it over the prairie, it's just killed the root system. You kill it and all you've got is a floton. After a while, it ain't no more floton. It just breaks up. (2) As far as that diversion, it didn't put no sediment. All it's bringing in is freshwater. (3) There's only one way you're going to help St. Bernard. That's put a dredge in that river and pump it. Then leave that land to tighten up again and let it come back.

		ectior ent Ac			SCOPING COMMENT
#	PN	ALT	AE	ECCO	
7			X	x x x x	 Mr. Ken Savastano, comments: (1) The information you're getting from all these people is that you've hurt them, you've hurt the land. All of your brackish marsh, over a 20-year period, with zero parts salinity, you've killed off the brackish marsh. (2) You've got some things such like peat grass, which smothered the marsh. You've got water hyacinths that killed all the duck grass that's growing in the unmarsh areas, the water areas, which would at least hold the soil together. (3) Once you wipe out all the brackish and saltwater marsh, you get freshwater marsh to grow. What happens when the saltwater comes in from the storm? It wipes it. (4) You're in a saltwater environment. You've got to get some vegetation that can handle saltwater. Freshwater is not going to do it.
8		x		X	 <i>Mr. Fred Everhardt, District E Councilman, St. Bernard Parish, comments:</i> (1) We have lost precious land. How are you all figuring on getting back? That's land that people own, property owned. Who do we blame? (2) So what, out of all of this information that these people are telling you – scientists don't know what's going on, because you all just destroyed it in 20 years that it's been there. Who's going to put this land back? There's one way. You have dredges sitting right up here where this gentleman works, sitting there doing nothing. Pump that damn thing in so we can get our marsh back, so we can provide a safe haven for this parish for a line of defense.
9		x		x	 Mr. Farizo comments: (1) Vegetation in the brackish marsh is gone, it's weakened. Keeping the water in the marsh floated it. When the storm comes, you have tremendous damage that you wouldn't normally have if you had good brackish marsh with roots into the ground. (2) So you're creating an environment that's going to help the storm destroy our marsh. You've got to create an environment that keeps the storms from destroying it which means you've got to have vegetation that won't get killed by saltwater. You would either pump it in to build some marsh or something.
10	x		X	X	 Mr. Tesvich comments: (1) If you increase the flow here, what are you going to create? You're just going to create freshwater marsh further down, which means you're going to destroy it further down. (2) I don't know how many of you all were on the Davis Pond, but Davis Pond is new and the landowners over there think, "Oh, yeah, the more the better." I think it would have been interesting if the meeting were together so that you would have landowners to talk to landowners and say, hey, don't believe all this hype that you're getting that freshwater is a panacea ant it's going to save our lands.

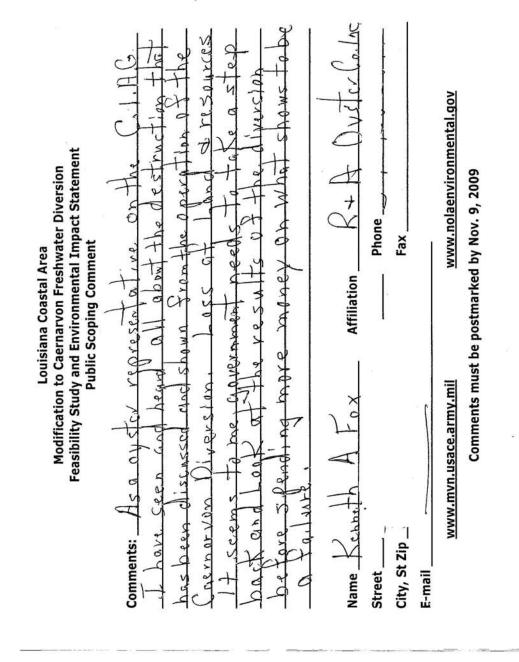
		Section Where nent Addressed			-	SCOPING COMMENT
#	PN	ALT	AE	EC	CC	
11		X		X		 Mr. Lopez comments: (1) What I think you've got at Davis Pond was a cypress swamp back of there. It was a freshwater marsh back there. And what you all have done, you all have changed the ecology of Caernarvon. You all are trying to change it from a brackish marsh to a freshwater, and you're not going to have a marsh. (2) That dredge that's sitting up there at the foot of Carrollton Avenue and St. Charles, if you take that dredge and bring that dredge down here and start pumping it in, you don't need but two and half, three foot of sand pumped in there.
12		X				 Mr. Arceneaux comments: (1) When I was younger, all of Louisiana used to have tidal marshes. That's when we had good healthy marshes. The subsidence is also helping to kill all our marsh, and if we don't pump mud and get some more mud, we're not going to have anything soon.
						SCOPING COMMENT CARDS
13		Х				Mr. David Dawson, land owner comments:(1) Get rid of the oyster industry. There (sic) have the hole (sic) gulf to fish in.
14	x					 Mr. Kenneth A. Fox, R&A Oyster Co. comments: (1) As a oyster representative on the CIAC, I have seen and heard all about the destruction that has been discussed and shown from the operation of the Caernarvon Diversion. Loss of land & resources. It seems to me government needs to take a step back and look at the results of the diversion before spending more money on what shows to be a failure.
15		X				 Mr. Howard J. Callahan, Big Mar Land Manager comments: (1) The best results of the outflow were when rates were increased in the late winter and spring to take advantage of silt flow. The pulse rates of 7-10 days and closing were the most effective, not running during the summer and fall allows plants to develop root systems and germinate.

PEIS Section Where Comment Addressed						SCOPING COMMENT				
#	PN A	ALT	AE	EC	CC					
			X	x		 By letter dated October 27, 2009, Miles Croom, Assistant Regional Administrator, National Marine Fisheries Service comments: (1) Aquatic and tidally influenced wetland habitats in portions of the study areas are designated as essential fish habitat (EFH) for post-larval and juvenile life stages of brown shrimp, white shrimp, red drum, and Gulf stone crab. Fishery management plans for these species have been developed by the Gulf of Mexico Fishery Management Council. 				
16			X	X		 (2) In addition to being designated as EFH, 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 and sand sea trout, southern flounder, black drum, and blue crab. 				
			Х	Х		(3) National Marine Fisheries Service recommends the Supplemental Environmental Impact Statements include separate sections titled "Essential Fish Habitat" and "Marine Fishery Resources" that identify the EFH and fisheries resources of the study area and describe the potential impacts and benefits to those resources that could be caused by various activities to be described and evaluated in the documents. Potential direct adverse impacts of project implementation could result from diverted waters changing isohalines in receiving basins, thereby altering distribution patterns for those fishery species or life stages that are less tolerant of fresh water conditions. If changing isohalines cause fishery species to move to habitats providing less protection from predation or less supportive in terms of growth and survival, reduced fishery production of that species could result.				
			X	X		(4) Some researches have suggested that high nutrient levels in river diversions can lead to organic matter decomposition in affected soils and root mat decomposition. If actions being evaluated or proposed under this study would lead to increased levels of nutrients reaching project area marshes and water bodies, the SEISs should evaluate the potential for increased susceptibility of those wetlands t erosion during storm events, as well as the potential for the creation of anoxic water conditions in the area affected by the diversions.				
			Х	X		(5) Potential direct beneficial effects could result from providing nutrients supportive of plankton and plant growth, both vital components of the aquatic food web. The nutrients also could help support plant growth and reduce wetland loss rates. The SEISs should evaluate such potential benefits of river diversions in light of predicted future sea level rise rates.				
			X	X	X	(6) The EFH and marine fishery resources sections of the documents also should describe and quantify the potential impacts and benefits of the proposed activities on EFH sub-categories (e.g., marsh, marsh edge, mud bottoms, submerged aquatic vegetation, and estuarine water column). The SEISs 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.				

PEIS Section Where Comment Addressed							SCOPING COMMENT
#	PN	ALT	AE	EC	CC		
	х	X	X			(1)	<i>dated December 10, 2009, Mr. Tony Tesvich comments:</i> Everyone knows the rich delta lands of Louisiana were built from the sediments brought down and deposited by the Mississippi River. It seemed logical enough to put the river water back through the eroded marsh to reverse wetland loss. However, this has proven to be a failed attempt. The Caernarvon Fresh Water Diversion has been in operation for over 20 years without significant gain of wetlands or reversal of land loss. I am opposed to any increase in output, or widening of the outfall canals. My reasoning being the simple fact that these projects are not effective at stopping marshland loss or building of it. Coastal restoration funds can be used in more practical methods of
17		X X X				(4)	rebuilding, which offer faster results. Our efforts should be focused on rebuilding the barrier islands, and build up of inner marshes adjacent to the back levees. The barrier islands are essential to stop the encroachment of the Gulf and to regulate the tidal flow. On the inner marshlands adjacent to the back levees out to the 5 ppm salt line, there is a lot of potential to build up the areas closer to the river with dredged sediments deposited over the back levees. If the barrier island chain is rebuilt as a first line of defense, and the inner marshes are built up and planted as a second line, we will have a lot more protection than we had for Hurricane Katrina. We don't need any more studies to be made; we need dredges to start dredging.
18	Х		X X X X		X	 (1) (2) (3) (4) 	<i>dated October 14, 2009, James F. Boggs of the U.S. Fish and Wildlife Service comments:</i> The Corps should evaluate and document the proposed project's effects on fish and wildlife resources and threatened and endangered species, i.e., the piping plover, the Gulf sturgeon, the brown pelican, the pallid sturgeon, and the West Indian manatees, and their critical habitat. The proposed project would be located in an area where colonial nesting water birds may be present. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. Estuarine wetlands and associated shallow waters within the project area have been identified as Essential Fish Habitat (EFH). Categories of EFH in the project area include estuarine emergent wetlands, estuarine water column, submerged aquatic vegetation, and estuarine water bottoms. Recommendations to minimize and/or avoid impacts to EFH should be developed in coordination with the National Marine Fisheries Service. The project-area forested wetlands may provide nesting habitat for the bald eagle. On-site personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office.

APPENDIX A

Scoping Comment Cards



Louisiana Caastal Area Modification to Caernarvon Freshwater Diversion reasibility Study and Environmental Impact Statement Public Scoping Comment Public Scoping Comment Public Scoping Comment Public Scoping Comment Phone Phone Phone Phone Phone Phone Phone Phone Phone Phone Phone Phone Phone Comments must be postmarked by Nov. 9, 2009			х (2)		
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Louisiana Coastal Area

APPENDIX B.

Scoping Comment Letters



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

October 27, 2009

F/SER46/RH:jk 225/389-0508

Mr. Michael Brown CEMVN-PM-RP New Orleans District, Corps of Engineers Department of the Army Post Office Box 60267 New Orleans, Louisiana 70160-0267

Dear Dr. Klein:

NOAA's National Marine Fisheries Service (NMFS) has received the public scoping meeting notices advertising the intent of the U.S. Army Corps of Engineers (COE) to undertake feasibility studies and prepare supplemental environmental impact statements (SEIS) to evaluate modifications to both the Davis Pond and Caernarvon diversions from the Mississippi River. The SEISs will be tiered off a programmatic EIS 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 studies and SEISs.

Aquatic and tidally influenced wetland habitats in portions of the study areas are designated as essential fish habitat (EFH) for postlarval and juvenile life stages of brown shrimp, white shrimp, red drum, and Gulf stone crab. Fishery management plans for these species have been developed by the Gulf of Mexico Fishery Management Council (GMFMC). Detailed information on federallymanaged 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 brown shrimp, white shrimp, red drum and Gulf stone crab, 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 and 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 SEISs include separate sections titled "Essential Fish Habitat" and "Marine Fishery Resources" that identify the EFH and fisheries resources of the study area and describe the potential impacts and benefits to those resources that could be caused by various activities to be described and evaluated in the documents. Potential direct adverse impacts of project implementation could result from diverted waters changing isohalines in receiving basins, thereby altering distribution patterns for those fishery species or life stages that are less tolerant of fresh as



water conditions. If changing isohalines cause fishery species to move to habitats providing less protection from predation or less supportive in terms of growth and survival, reduced fishery production of that species could result.

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Recently, some researchers have suggested that high nutrient levels in river diversions can lead to organic matter decomposition in affected soils and root mat decomposition¹. As root mats decompose, the marshes expected to benefit from river diversion become more susceptible to erosion during infrequent high energy storm events. Also, NMFS would be concerned if nutrients in diverted waters caused extremely rapid algae growth, which could lead to reduced oxygen levels in waters as the algae population dies and decomposes. Reduced oxygen could lead to fish kills, reduced productivity, and/or fishery avoidance of areas affected by such water quality problems. If actions being evaluated or proposed under this study would lead to increased levels of nutrients reaching project area marshes and water bodies, the SEISs should evaluate the potential for increased susceptibility of those wetlands to erosion during storm events, as well as the potential for the creation of anoxic water conditions in the areas affected by these diversions.

Potential direct beneficial effects could result from providing nutrients supportive of plankton and plant growth, both vital components of the aquatic food web. The nutrients also could help support plant growth and reduce wetland loss rates. Sediment suspended in diverted waters also could help offset subsidence and lead to greater sustainability of wetlands in close proximity to the diversion sites. The SEISs should evaluate such potential benefits of river diversions in light of predicted future sea level rise rates.

The EFH and marine fishery resources sections of the documents also should describe and quantify the potential impacts and benefits of the proposed activities on EFH sub-categories (e.g., marsh, marsh edge, mud bottoms, submerged aquatic vegetation, and estuarine water column). The SEISs 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 projects on wetland habitats supportive of marine fishery resources should not preclude efforts to avoid or minimize negative impacts of some alternatives on those resources.

We appreciate the opportunity to identify resources that should be evaluated in the SEISs, and to recommend alternatives and issues to be addressed. If you have any questions regarding comments and recommendations provided herein, please contact Mr. Richard Hartman of our Louisiana Habitat Conservation Division office at (225) 389-0508, ext 203.

Sincerely,

Ger Miles M. Croom Assistant Regional Administrator Habitat Conservation Division

¹ Schwarzenski, C.M., T.W. Doyle, B. Fry and T.G. Hargis. 2008 Biogeochemical response of organic-rich freshwater marshes in the Louisiana delta plain to chronic river water influx. Biogeochemistry 90:49-63.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE 646 Cajundome Blvd. Suite 400 Lafayette, Louisiana 70506 October 14, 2009

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

Dear Colonel Lee:

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of the Army, Corps of Engineers (Corps), Notice of Intent (NOI) to prepare a Draft Supplemental Environmental Impact Statement (SEIS) for the Louisiana Coastal Area (LCA) – Modification of Caernarvon Diversion Feasibility Study. The NOI was published in the Federal Register on September 15, 2009 (74 FR 47230; Department of Interior No. ER 09/1008). The LCA Program was authorized by the Water Resources Development Act of 2007, and this SEIS will be tiered off of the programmatic EIS (LCA – Louisiana, Ecosystem Restoration Study, November 2004) for that program. The Service submits the following comments in accordance with the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321 et seq.), the Migratory Bird Treaty Act (MBTA, 40 Stat. 755, as amended; 16 U.S.C. 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Caernarvon Freshwater Diversion structure is located along the east bank of the Mississippi River approximately 15 miles south of New Orleans, Plaquemines Parish, Louisiana. The diversion structure is a five-box culvert, with each culvert measuring 15 feet square. The culverts can flow water at a maximum of 8,000 cubic feet per second through an outfall channel approximately 1.5 miles long to Big Mar which is a 1,790 acre overflow area. This project would increase wetland restoration outputs in the Breton Sound Basin.

The specific objective of this modification project is to: Maximize the use of the existing diversion structure for the purpose of decreasing wetland loss and increasing habitat quality. Methods for achieving the proposed project objectives may include; 1) changing the structures' operational plan to flow at maximum capacity (5,000 cfs average); 2) and to include pulsing (fully opening the structures' gates during a rise in the Mississippi River to maximize suspended sediment delivery); 3) physical land modifications to divert water to areas that currently do not receive diversion flows; 4) marsh restoration; 5) shoreline protection; 6) terracing; and 7) vegetative plantings.

Federally listed as a threatened species, the piping plover (*Charadrius melodus*), as well as its designated critical habitat, occur along the Louisiana coast. Piping plovers winter in Louisiana, and may be present for 8 to 10 months annually. They arrive from the breeding grounds as early as late July and remain until late March or April. Piping plovers feed extensively on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation; they also require unvegetated or sparsely vegetated areas for roosting. Roosting areas may have debris, detritus, or micro-topographic relief offering refuge to plovers from high winds and cold weather. In most areas, wintering piping plovers are dependent on a mosaic of sites distributed throughout the landscape because the suitability of a particular site for foraging or roosting is dependant on local weather and tidal conditions. Plovers move among sites as environmental conditions change, and studies have indicated that they generally remain within a 2-mile area. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation.

Federally listed as an endangered species, brown pelicans (*Pelecanus occidentalis*) are currently not known to nest in the project vicinity; however, nesting does occur east of the proposed project area on Raccoon Point on Isles Dernieres and on Wine Island in Terrebonne Bay. Pelicans change nesting sites as habitat changes occur. In spring and summer, nests are built in mangrove trees or other shrubby vegetation, although ground nesting may also occur. Brown pelicans feed along the Louisiana coast in shallow estuarine waters, using sand spits and offshore sand bars as rest and roost areas. Major threats to this species include chemical pollutants, colony site erosion, disease, and human disturbance. Should the proposed project directly or indirectly affect brown pelicans, further consultation with this office will be necessary.

The Gulf sturgeon (*Acipenser oxyrhynchus desotoi*), federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. In Louisiana, Gulf sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain basin, and adjacent estuarine areas. At least one occurrence of Gulf sturgeon has been reported as far west as Cameron Parish. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May). Adults and sub-adults may be found in those rivers and streams until November, and in estuarine or marine waters during the remainder of the year. Sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations such as those caused by water control structures that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species.

For estuarine waters in Louisiana, the NMFS is responsible for consultations regarding impacts to the sturgeon and its critical habitat with all Federal agencies, except the Department of Transportation, the Environmental Protection Agency, the U.S. Coast Guard, and the Federal Emergency Management Agency, which consult with the Service. In riverine waters, the Service is responsible for all consultations regarding Gulf sturgeon and critical habitat, while in marine waters the NMFS is responsible for consultation. Therefore, please contact Dr. Stephania Bolden (727/824-5312) in St. Petersburg, Florida, for information concerning that species.

Should the proposed project directly or indirectly affect the Gulf sturgeon in Louisiana, further consultation with that office will be necessary.

The pallid sturgeon (*Scaphirhynchus albus*) is an endangered fish found in Louisiana, in both the Mississippi and Atchafalaya Rivers (with known concentrations in the vicinity of the Old River Control Structure Complex); it is possibly found in the Red River as well. The pallid sturgeon is adapted to large, free-flowing, turbid rivers with a diverse assemblage of physical characteristics that are in a constant state of change. Detailed habitat requirements of this fish are not known, but it is believed to spawn in Louisiana. Habitat loss through river channelization and dams has adversely affected this species throughout its range. Entrainment issues associated with dredging operations in the Mississippi and Atchafalaya Rivers and through diversion structures off the Mississippi River are two potential effects that should be addressed in future planning studies and/or in analyzing current project effects. Should the proposed project directly or indirectly affect the pallid sturgeon or its habitat, further consultation with this office will be necessary.

Federally listed as an endangered species, West Indian manatees (*Trichechus manatus*) occasionally enter lakes, rivers, streams, and associated coastal marshes and waters in southeast Louisiana during the summer months (i.e., June through September). Manatee occurrences appear to be increasing and have also been occasionally observed elsewhere along the Louisiana Gulf coast. The manatee has declined in numbers due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution. Cold weather and outbreaks of red tide may also adversely affect these animals. Should the proposed project involve activity in the aquatic environment in those areas during summer months, further consultation with this office will be necessary.

The proposed project would be located in an area where colonial nesting waterbirds may be present. Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries (LDWF). That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present). For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the nonnesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present). In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

The project-area forested wetlands may provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), which was officially removed from the List of Endangered and Threatened Species on August 8, 2007. Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to

intermediate marshes or open water in the southeastern Parishes. Areas with high numbers of nests include the Lake Verret Basin south to Houma, the marsh/ridge complex south of Houma to Bayou Vista, the north shore of Lake Pontchartrain, and the Lake Salvador area. Eagles also winter, and infrequently nest, in mature pine trees near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead).

Breeding bald eagles occupy "territories" that they will typically defend against intrusion by other eagles, and that they likely return to each year. A territory may include one or more alternate nests that are built and maintained by the eagles, but which may not be used for nesting in a given year. Potential nest trees within a nesting territory may, therefore, provide important alternative bald eagle nest sites. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that may weigh more than 1,000 pounds. Most nests are located in the upper 30 feet of the tree; the cone-shaped nest may be 6 to 8 feet in diameter and 6 to 8 feet from top to bottom. Nest sites typically include at least one perch with a clear view of the water or area where the eagles usually forage. Shoreline trees or snags located near large waterbodies provide the visibility and accessibility needed to locate aquatic prey. Bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during this critical period may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

Although the bald eagle has been removed from the List of Endangered and Threatened Species, it continues to be protected under the MBTA and the BGEPA. The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at:

http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf. Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at:

http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. Should you need further assistance interpreting the guidelines or performing an on-line project evaluation, please contact this office.

Estuarine wetlands and associated shallow waters within the project area have been identified as Essential Fish Habitat (EFH). EFH requirements vary depending upon species and life stage. Categories of EFH in the project area include estuarine emergent wetlands, estuarine water column, submerged aquatic vegetation, and estuarine water bottoms. Detailed information on federally managed fisheries and their EFH is provided in the 1998 generic amendment of the Fishery Management Plans for the Gulf of Mexico, prepared by the Gulf of Mexico Fishery Management Council (GMFMC). That generic amendment was prepared in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA); (P.L. 104-297). Recommendations to minimize and/or avoid impacts to EFH should be developed in coordination with the NMFS.

The President's Council on Environmental Quality defined the term "mitigation" in the National Environmental Policy Act regulations to include: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

The Service's Mitigation Policy (Federal Register Volume 46, No. 15, January 23, 1981) supports and adopts this definition of mitigation and considers its specific elements to represent the desirable sequence of steps in the mitigation planning process. That policy identifies four resource categories that are used to insure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value for fish and wildlife and the relative scarcity of the estuarine marsh habitat, those wetlands have been designated Resource Category 2 habitats. The mitigation goal for habitats in this resource category is no net loss of in-kind habitat value. If necessary, detailed mitigation needs will be evaluated during the feasibility stage.

We look forward to assisting the Corps in the documentation of existing conditions, development of alternatives, and assessment of effects of project alternatives on Federal trust resources during the subsequent feasibility study. Should you have any questions regarding our comments, please contact Robert Dubois (337/291-3127) of this office.

Sincerely,

James F. Boggs Supervisor Louisiana Field Office

cc: DOI, OEPC, Washington, D.C. (Attn.: Loretta Sutton) DOI, OEPC, Albuquerque, NM (Attn.: Steven Spencer) FWS, BAP & HC (ERT), Arlington, VA (Attn.: Stephanie Nash) FWS, Atlanta, GA (ES/PP; Attn.: Jerry Ziewitz) EPA, Dallas, TX NMFS, Baton Rouge, LA Corps, New Orleans, LA (Attention: William Klein, CEMVN-PM-RS) LDWF, New Iberia Office, New Iberia, LA LDWF, Baton Rouge, LA (Attn.: Kyle Balkum) LDWF, Natural Heritage Program, Baton Rouge, LA OCPR, Baton Rouge, LA
LDNR, CMD, Baton Rouge, LA

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United States Department of the Interior OFFICE OF THE SECRETARY Office of Environmental Policy and Compliance 1849 C Street, NW - MS 2342-MIB WASHINGTON, D.C. 20240



9043.1 PEP/NRM September 18, 2009

ELECTRONIC MAIL MEMO

To:	Director, Fish and Wildlife Service
	Director, National Park Service
	Director, Geological Survey
	Director, Office of Surface Mining
	Director, Minerals Management Service
From:	Team Leader, Natural Resources Management
	Office of Environmental Policy and Compliance
Subject:	Notice of Intent to Prepare a Draft Supplemental Environmental Impact Statement
	(DSEIS) for the Louisiana Coastal Area (LCA)-Louisiana, Modification of
	Caernarvon Project, LA
	(ER 09/1008) (Agency due date: October 15, 2009)

The Department of the Army, Corps of Engineers (Corps) has published in the September 15, 2009, Federal Register, a notice of intent to prepare a DSEIS for the subject project. You may view the notice at: <u>http://www.access.gpo.gov/su_docs/fedreg/frcont09.html</u>. Additional information may be available at: <u>http://www.mvn.usace.army.mil/pd/projectsList/projectList.asp?projectType=GI</u>.

This notice gives you an early opportunity to provide technical assistance and/or to participate from your areas of special expertise or jurisdiction. If significant involvement is indicated, you

Comments should be made directly to the person/address listed in the notice by **October 15**, **2009.** Please provide a copy of any comments you make to this office.

/s/ 9/18/09 Vijai N. Rai

cc: Regional Environmental Officer, Albuquerque

should also participate in the follow-up scoping activities.

OEPC Staff Contact: Loretta B. Sutton, 202-208-7565; Loretta_Sutton@ios.doi.gov

December 10, 2009 Tony J. Tesvich P.O. Box 1053 Port Sulphur, LA 70083

Mr. Michal Brown CEMVN-PM-RP P.O. Box 60267 New Orleans, LA 70160-0267

RE: Opposition to increasing output at Caernarvon and Davis Pond Fresh Water Diversion Projects

Dear Mr. Brown:

Everyone knows the rich delta lands of Louisiana were built from the sediments brought down and deposited by the Mississippi River. It seemed logical enough to put the river water back through the eroded marsh to reverse wetland loss. However, this that proven to be a failed attempt.

I was born and raised in Plaquemines Parish, an oyster farmer by trade. I grew up on the bayou and have witnessed the disintegration of the salt water marshes first hand. Some areas I remember as being solid marsh, are 5-6 feet of open water now.

The Caernarvon Fresh Water Diversion has been in operation for over 20 years without any significant gain of wetlands or reversal³ of land loss.⁴ What it has done is ruin a pristine brackish/saltwater marsh ecosystem with toxic pollutants, high levels of choloform and heavy metal contaminents. It has filled in some bayous and bays with muck, redering them useless for navigation and fishing. It has caused a proliferation of duck grass, water hyacinths and other aquatic vegetation. It also has introduced an evasive species of zebra mussel to the area, posing a nuisance to oyster farmers. The toxic effects of this polluted outfall is silently and invisibly taking its toll on our marine wildlife resources.

Since Caernarvon, the Davis Pond Diversion was built and another is planned for Myrtle Grove, on the west bank of the river. How is it that after twenty years of failure, these projects can still be considered as a viable tool for coastal restoration?

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I am opposed to any increase in output, or widening of the outfall canals. My reasoning being the simple fact that these projects are not effective at stopping marshland loss or building of if. The saltwater marshes do not thrive on fresh water. And Freshwater Diversion is useless to the rate of land subsidence in these areas. Coastal restoration funds can be used in more practical methods of rebuilding, which offer faster results.

SOME POSSIBILITIES

First of all, you have to come to realize that you are not going to rebuild marshlands, which are now 2-6 feet of water. We should try to save what is left, but even with our best efforts we will not be able to save a large portion of these marshes. They are either too far gone, or it is not feasible to do the required work to save it. Our efforts should be focused on rebuilding the barrier islands, and build up of inner marshes adjacent to the back levees. The barrier islands are essential to stop the encroachment of the Gulf and to regulate the tidal flow. The project underway is very impressive. The remaining portions are needed ASAP.

On the inner marshlands adjactent to the back levees out to the 5 ppm salt line, there is a lot of potential to build up the areas closer to the river, with dredged sediments deposited over the back levees. Navigable bayous and canals can be deepened, with the spoil deposited to the banks and surrounding marsh. This area is suitable to fresh water brush or even trees closer in, if the land is built up enough. This can create an effective buffer for wind and water,

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providing some hurricane protection as a second line of defense, protecting our back levees.

The research and planting of vegetation, be it salt water marsh grasses, mangrove bushes, canes, bamboo, freshwater brush or swamp trees is the key to the effectivness and longevity of these projects.

The Barataria/Terrebonne Basin to the west side and the Breton and Chandeleur Sound Basin to the east, make this delta land one of the richest estuaries in the world. This brackish mix of water is essential to our vast abundance of fish, shrimp, crabs, oysters and other wildlife. These areas encompass all inshore fisheries, recreational and commercial as well as a major portion of the state's petroleum production. Simply rerouting a large volume of river water through these areas, as proposed by some plans, would wreak havoc among our marine resources and cause countless problems to navigation, hindering petroleum production. This is not a practical means to go about coastal restoration, and would take generations to see any positive effects from it.

If the barrier island chain is rebuilt as a first line of defense, and the inner marshes are built up and planted as a second line, we will have a lot more protection than we had for Hurricane. Katrina. The main point here is to use common sense methods of rebuilding, within our means and funding. We don't need any more studies to be made, we need dredges to start dredging.

I thank you for hearing my opinion, and would be happy to be of any assisstance to any coastal restoration project.

Respectfully,

Tomy J. Terrich

Tony J. Tesvich