



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

MAY 16 2006

Planning, Programs, and
Project Management
Environmental Planning
and Compliance Branch

TO INTERESTED PARTIES

Enclosed is the scoping document for the draft Environmental Impact Statement (DEIS) for the Mississippi River and Tributaries – Morganza, Louisiana to the Gulf of Mexico Project: Houma Navigation Canal Lock Complex and Associated Structures. A public scoping meeting regarding the study was held at the Houma Municipal Auditorium Houma, Louisiana, Terrebonne Parish on November 16, 2005. This scoping report represents and summarizes the scoping comments expressed at the public scoping meetings, as well as written comments received during the comment period ending December 16, 2005.

Comments should be mailed to the attention of Mr. Nathan Dayan; U.S. Army Corps of Engineers; Planning, Programs, and Project Management Division; Environmental Planning and Compliance Branch; CEMVN-PM-RS; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Comments may also be provided by E-Mail to Nathan.S.Dayan@mvn02.usace.army.mil, or by fax to (504) 862-2088. Mr. Dayan may be contacted at (504) 862-2530 if questions arise.

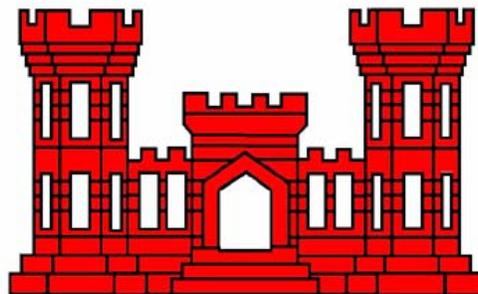
For


Robert J. Martinson
Acting Chief, Environmental Planning
and Compliance Branch

Enclosures

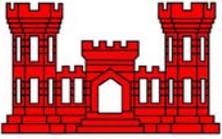
**MISSISSIPPI RIVER & TRIBUTARIES-
MORGANZA, LOUISIANA TO THE GULF OF MEXICO
HURRICANE PROTECTION:**

**Houma Navigation Canal (HNC) Lock Complex
and Associated Structures**



**ENVIRONMENTAL IMPACT STATEMENT
SCOPING DOCUMENT**

May 12, 2006



MISSISSIPPI RIVER & TRIBUTARIES-MORGANZA, LOUISIANA TO THE GULF OF MEXICO HURRICANE PROTECTION – HOUMA NAVIGATION CANAL (HNC) LOCK COMPLEX AND ASSOCIATED STRUCTURES ENVIRONMENTAL IMPACT STATEMENT SCOPING DOCUMENT

Introduction

The National Environmental Policy Act (NEPA) of 1969 established a nationwide policy requiring an environmental analysis of impacts as a result of proposed major Federal actions affecting the environment. A Notice of Intent to prepare a draft Environmental Impact Statement (EIS) for the Mississippi River & Tributaries-Morganza, Louisiana to the Gulf Of Gulf Of Mexico Hurricane Protection Houma Navigation Canal (HNC) Lock Complex and Associated Structures was published in the Federal Register (Volume 70, Number 170) on September 2, 2005 (<http://www.gpoaccess.gov/fr/index.html>).

The U.S. Army Corps of Engineers (USACE) New Orleans District (MVN), and the local sponsors, the Louisiana Department of Transportation and Development and Terrebonne Levees and Conservation District are working together to prepare the draft EIS.

Scoping Process

The scoping process is designed to provide an early and open means of determining the scope of issues (problems, needs, and opportunities) to be identified and addressed in the draft EIS. Scoping is the process used to: a) identify the affected public and agency concerns; b) facilitate an efficient draft EIS preparation process; c) define the issues and alternatives that will be examined in detail in the draft EIS; and d) save time in the overall process by helping to ensure that the draft statement adequately address relevant issues. Scoping is a process, not an event, or a meeting; it continues throughout the draft EIS process and may involve meetings, telephone conversations, and/or written comments. Scoping is a critical component of the overall public involvement program. An intensive public involvement program will be initiated and maintained throughout the study to solicit input from affected Federal, state, and local agencies, Indian tribes, and interested private organizations and individuals. This scoping report represents and summarizes the scoping comments expressed at the public scoping meetings, as well as written comments received during the comment period ending December 16, 2005. Scoping meeting public notices was mailed to interested parties in October 2005. The public notice provided two questions as a means of focusing the public's comments and concerns related to the proposed project:

1. *What are the most important issues, resources, and impacts that we should consider in the EIS?*
2. *Are there any other alternatives or modifications to existing alternatives that we should consider in the EIS?*

A public scoping meeting regarding the study was held at the Houma Municipal Auditorium Houma, Louisiana, Terrebonne Parish on November 16, 2005.

All scoping meeting participants who requested to be on study mailing list, as well as those people who provided written comments, will be included on the study mailing list and will receive copies of this scoping report.

EIS Scoping Document

Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Study Authority

A reconnaissance study was authorized by a resolution adopted April 30, 1992, by the Committee of Public Works and Transportation of the U.S. House of Representatives. The Energy and Water Development Appropriation Act of 1995 (PL 103-316) authorized the Morganza to the Gulf Of Mexico Hurricane Protection (MtoG) feasibility study. It directed the USACE to give particular attention to the interrelationships of the various ongoing studies in the area, and consider improvements for the HNC. The Water Resources Development Act (WRDA) of 1996 authorized the USACE to conduct an independent study of a lock to be located in the HNC. That study was completed in 1997. In 1998, Congress authorized the USACE to initiate detailed design of the multipurpose lock in the HNC.

Purpose and Need

The purpose of the proposed action is to reduce flood damages from tropical storm and hurricane induced tidal flooding along Bayou du Large, Bayou Grand Caillou, Bayou Petit Caillou, Bayou Terrebonne, Bayou St. Jean Charles, Bayou Pointe aux Chenes and the Gulf Intracoastal Water Way. The primary objective of this plan is to reduce flood damages in all the areas predicted to be impacted by storms up to the 100-year recurrent frequency storm event, as depicted on Federal Emergency Management Agency (FEMA) maps. The secondary objective of this plan is the reduction of coastal wetlands loss and preservation of the fragile ecosystem from damaging tidal surges resulting from tropical storms and hurricanes.

Alternatives

Alternatives recommended for consideration presently include the construction of the HNC lock complex and associated structures as described in the MtoG programmatic FEIS. Additionally, various levee alignments, as well as structure locations, depth, and sizes will be investigated. The alternatives listed above are tentative and may change depending on public input and engineering studies. Several sites have initially been identified to be used to obtain borrow material for levee construction. MVN would use the material from any excavation for beneficial use to create or restore wetlands, to the extent practicable.

Comments

Approximately 31 people attended the meeting with 18 people providing oral comments that night. Eight written comments were received during a 30-day comment period. The transcripts of the comments received at the meeting and copies of written comments follow. Scoping comments (Table 1) were consolidated and sorted into categories in order to more efficiently address issues of concern about the scope of the proposed project and the evaluation of impacts in the draft EIS. Table 1 also provides the sections where the comments may be discussed in the draft EIS.

EIS Scoping Document

Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Transcript of the Scoping meeting held November 16, 2005

Speaker 1: George Bourg.

Thank you for allowing me to speak. I have answered in past how much boat traffic in Dulac has answered. Tugboats and shrimp boats travel at 7 to 9 mph, while hurricanes travel at 15 mph., which means Hurricanes, can catch the boats. From your plan will try to save themselves by coming up Bayou Grand Calliou (BGC) in the face of the storm and your floodgate once 6 inches over normal it will be shut and will lock out those boats. Those of us will have to go back out to the Gulf to get back into the channel because you failed to provide an alternate route for BGC to get into the lock. Two set of floodgates that are redundant if you would put an alternate channel from BGC through what is called loch of Felix, which is mostly school board property. BGC would not need a set floodgate but just a levee, which would cost less, and the boats would be routed below the set of locks and would not be trapped. And there is a lot of commerce that travel BGC because part of the year BGC is deeper then channel, So deep draft boats often go through the western route. There is a lot of commerce in the area too. So the in my opinion is a mistake. Now If you were saving money by not building two sets of floodgates, which aren't necessary you could build a set of locks big enough for your customers in Houma. 110 by 800 is all ready to small. The people down at Gulf Island need 210 ft wide X 1,010 ft long. That what they need now today so what is the benefit in putting in a set of already to small? Now since you are talking about two earthen levee and two gates why is it you can't but them not 2,010 ft apart instead of 810 feet apart? I don't understand these sets of lock being concert caisson like most locks are. This set of locks Only going to be two flood gate why not further apart To accommodate larger traffic which all ready have on the channel.

Speaker 2: Ronnie Paille, USFWS

(written copy given in)

November 16, 2005

#2



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.

Suite 400

Lafayette, Louisiana 70506

November 16, 2005

Statement of Ronald Paille, U.S. Fish and Wildlife Service, before the Houma, Louisiana, public scoping meeting regarding the Notice of Study Initiation and Environmental Impact Statement for the Mississippi River and Tributaries – Morganza, Louisiana to the Gulf of Mexico Houma Navigation Canal Lock Complex and Associated Structures

Good evening Colonel Wagenaar and ladies and gentlemen. I am Ronald Paille, here today on behalf of Russell Watson, Supervisor of the U.S. Fish and Wildlife Service's Lafayette, Louisiana Ecological Services Field Office. I appreciate the opportunity to provide you and your staff with comments regarding important scoping issues associated with the planning and construction of the proposed Houma Navigation Canal (HNC) Lock and associated structures.

As we are all painfully aware, coastal wetlands within the Terrebonne Basin have and are experiencing the most rapid coastal wetland losses in Louisiana. There are many reasons, but a fundamental cause has been the elimination of the deltaic processes which historically built and maintained the Terrebonne Basin and other parts of the Mississippi River Deltaic Plain.

Ironically, the efforts to protect life and property from riverine flooding have set in motion the slow-motion disaster we are all battling: that of the coastal wetland loss crisis throughout the deltaic region of coastal Louisiana. For this and other reasons, the existence of communities in southern Terrebonne Parish and western Lafourche Parish have become increasingly more precarious with each passing year. That increasing vulnerability was made very clear during this past hurricane season.

Without a doubt, hurricane protection for this region is urgently needed. But, in solving the region's existing hurricane threat crisis, we must be careful not to undermine those efforts by impeding the supply of Atchafalaya River freshwater now entering the region from the Gulf Intracoastal Waterway (GIWW). Ironically, the canals which have caused so much damage to coastal ecosystems throughout Louisiana, are now serving to restore seasonal riverine influences within the Terrebonne Basin that were once provided by natural distributary channels. This fresh water is (and will be) critically important in maintaining the remaining Terrebonne Basin marshes.

Those marshes provide a nursery ground for nationally significant fish and wildlife resources that provide significant economic value to the area. Perhaps more importantly, however, they also help reduce storm surge height in inland areas. If those marshes continue to be lost at current rates, the future landscape will differ greatly from that of the present. As a result, storm surge heights will increase and may, in time, exceed the height of levees constructed previously when marshes were present to dampen those surges. Consequently, we strongly believe that maintenance and restoration of marshes outside the proposed hurricane protection levees should

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be an integral part of any hurricane protection plan in this region. Likewise, in this rapidly changing environment, any project effects that would increase the loss of those wetlands would be counterproductive and must be avoided.

The options for fixing this very serious coastal wetland loss problem in the Terrebonne Basin are, unfortunately, limited. One of the foremost and easily implementable options, and one that would contribute toward a truly sustainable ecosystem, is that of increasing the distribution of existing Atchafalaya River freshwater inputs. Presently, seasonal freshwater flows of 8,000 cubic feet per second (cfs) enter Houma annually and peak flows may reach 10,000 to 12,000 cfs (Swarzenski 2003). Not only is this freshwater resource available at present, but modeling analyses published by the U.S. Army Corps of Engineers Waterways Experiment Station in 1992 determined that stages on the Lower Atchafalaya River would increase by over 3 feet during the 50-year period from 1980 to 2030 (Donnell and Letter 1992). Because stages on the Lower Atchafalaya River drive eastward freshwater flows through the Terrebonne Basin via the GIWW, increasing river stages will result in increasing freshwater inputs to the Terrebonne Basin marshes. This restoration option would occur naturally and at NO COST to the taxpayer, provided that those future trends are permitted to occur as expected.

Presently, 70 to 80 percent of the freshwater flow reaching Houma via the GIWW escapes to the Gulf via the HNC (Paille 1997 and Swarzenski 2003). Because that canal is so efficient, those flows have little opportunity to disperse into the adjoining marshes. Consequently, few marsh areas benefit from those freshwater flows and their associated sediments. However, if the distribution of those flows into adjacent marshes could be substantially increased, especially in light of the expected increased future flows, the deteriorating marshes outside the proposed levee system could be maintained and restored in a manner that would contribute toward the region's environmental sustainability. As a result, the local communities would be afforded more protection from the storm tides and open-bay conditions that would otherwise develop adjacent to the proposed levees if marsh loss continues. The HNC Lock and associated structures provide an excellent opportunity to improve the distribution of freshwater flows, enhance the sustainability of adjacent marshes, and achieve added protection and sustainability for area communities. On the other hand, if not designed and operated properly, those features could contribute to the rapid demise of affected marshes, leaving the adjacent communities even more vulnerable to storm surges.

Given the opportunities before us, the minimal effort needed to achieve those opportunities, and the urgency associated with wisely integrating and implementing wetland restoration and storm protection projects, we believe that wetland restoration through freshwater management must be integrated into the existing hurricane protection project. For these and other reasons, the Service has consistently recommended (USFWS 2002) that the HNC Lock and other associated Morganza Project features be designed and operated to improve the distribution of fresh water into coastal marshes adjoining the Houma Navigation Canal and elsewhere. We greatly appreciate the efforts already made in this regard and, in the face of recent and future storms, we urge the project sponsors to continue and intensify their efforts to integrate present and future freshwater flow management with the proposed hurricane protection system features.

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We fully understand the vulnerability of the local communities to hurricane impacts, and the urgent need to provide them with adequate protection. To assist in this effort, the Service stands ready and willing to work with the project sponsors to expeditiously develop and evaluate these and other project features so that project implementation delays can be avoided.

Thank you for the opportunity to provide this statement.

Approved November 10, 2005



Russell C. Watson
Supervisor
Louisiana Field Office
646 Cajundome Blvd., Suite 400
Lafayette, Louisiana 70506

LITERATURE CITED

- Donnell, B. P., and J.V. Letter, Jr. 1992. The Atchafalaya River delta. Report 12, Two-dimensional modeling of alternative plans and impacts on the Atchafalaya Bay and Terrebonne marshes. U.S. Army Corps of Engineers Waterways Experiment Station, Hydraulics Laboratory, Vicksburg, MS. Technical Report HL-82-15. Pg. 29, table 5.
- Paille, R.F. 1997. Lower Atchafalaya Basin re-evaluation study: a planning aid report on freshwater inflows to the Terrebonne Basin. U.S. Fish and Wildlife Service, Ecological Services, Lafayette, LA. 28 pp.
- Swarzenski, C. 2003. Surface-water hydrology of the Gulf intracoastal waterway in south-central Louisiana, 1996-99. U.S. Geological Survey Professional Paper 1672, prepared in cooperation with the U.S. Army Corps of Engineers, New Orleans District. 51pp.
- USFWS 2002. Mississippi River and Tributaries Morganza, Louisiana, to the Gulf of Mexico Feasibility Study: Fish and Wildlife Coordination Act Report. U.S. Fish and Wildlife Service, Ecological Services, Lafayette, LA. 45 pp.

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Speaker 3: Ed Watson

Good evening, I am the Director of Terrebonne port commission here in Houma. I appreciate the opportunity to speak here before you not only as the port director and as a citizen of Houma, but also as a citizen of Terrebonne. The need for hurricane protection in Terrebonne is a couple of things I would like to point out. Rapid flow of fresh water through the HNC – controlled by these locks and floodgates – creates some very very beneficial environmental benefits. I think these environmental benefits will equal the environmental liabilities would. That being the case I certainly would hope you would look at a self-mitigating project for the lock and floodgate. There are so many things that we can look at with these features of MtoG. The lock and Flood Gate need to get started. I think it will contain the flow of water that we talk about coming up the very salt water that is destroying marsh. I think the Lock is the most important thing we can do. Nothing else can be done. Without the lock in place, there is no other body of water that carries that much volume of trouble to this area. I would encourage you to get the EIS to get it completed as soon as possible. Thanks again.

Speaker 4: Leland Robichaux

Good evening and thank you for putting on this public meeting. South Central Industrial Ass (SCIA) represents 200 member firms in Terrebonne, Lafourche, and St. Mary Parish and representing approximately 32,000 employees. The MtoG project which will provide hurricane protection for the residence, business, and holiday homeowners of Terrebonne and Lafourche parish. The proposed lock complex of the HNC is an integral part of the MtoG system for Terrebonne Parish. Environmental benefits of the lock complex include management of saltwater intrusion and possible use as a freshwater diversion structure, as indicated by Coast 2050, LCA, and by MtoG HET. The lock complex on HNC would have a positive systematic effect in Terrebonne and Lafourche parish. TLCD, DOTD, Terrebonne parish resident (passed tax) support anyway can to get this done. Disheartened that WRDA may not take place this year. Thought it would be passed by December. We continue to push it. SCIA and Board members support the MtoG project. (Handed in resolution form SCIA)



PO Box 2143 7910 Main Street
Houma, LA 70361

RESOLUTION NO. 101805

**SUPPORTING THE FUNDING FOR THE
HOUMA NAVIGATION CANAL LOCK COMPLEX
FOR THE MORGANZA TO THE GULF
HURRICANE PROTECTION PROJECT**

Chet Morrison
President
Chet Morrison
Contractors

Kenneth Smith
Exec. Vice President
T. Baker Smith & Son

Don Hingle
Vice President
Whitney Bank

Tony Boudreaux
Secretary
Superior Labor
Services

Charles Theriot
Treasurer
Charles Theriot, CPA

Leland Robichaux
Past President &
Advisor
Oil States
Skagit/Smatco

Neil Suard
Past President &
Advisor
Suard Companies

C.J. Domangue
Director
Domangue Lafont
Investments

Stephanie Hebert
Director
Stephanie Hebert
Insurance Agency

Kirk Meche
Director
Gulf Island Fabrication

Otis T. Logue
Past President &
Managing Director
Southern Technology
& Services

Jane Arnette
SCIA
Executive Director

The South Central Industrial Association (SCIA), representing over 200 member firms and over 32,000 employees, strongly supports the funding for the Houma Navigation Canal (HNC) Lock Complex as part of the Morganza to the Gulf Hurricane Protection Project.

WHEREAS, the Morganza to the Gulf Hurricane Protection Project will provide hurricane protection for the residents, businesses and property owners of Terrebonne and Lafourche Parishes; and

WHEREAS the proposed lock complex on the Houma Navigation Canal is an integral part of the Morganza to the Gulf Hurricane Protection System for Terrebonne Parish and;

WHEREAS the Environmental benefits of the Lock Complex include management of salt water intrusion and possible use as a freshwater diversion structure as indicated in the Coast 2050 Ecosystem Restoration Report, the Louisiana Coastal Area Ecosystem Study Report (LCA) and by the Morganza to the Gulf Habitat Evaluation Team; and

WHEREAS the Lock Complex on the Houma Navigation Canal would have positive systemic affects in Terrebonne and Lafourche parishes; and

WHEREAS the Terrebonne Levee and Conservation District (TLCD) stands ready and willing to provide a cost share funding for the construction of the HNC Lock Complex, independent of state and local Coastal Impact Assistance funding;

BE IT RESOLVED that SCIA does recommend the Coastal Impact Assistance monies allocated to the Terrebonne Parish Consolidated Government be used to assist in the construction of the Lock Complex on the Houma Navigation Canal, and

BE IT FURTHER RESOLVED, that SCIA strongly urges and requests the State of Louisiana dedicate \$100 Million of the recently provided Coastal Impact Assistance monies to the planning and construction of the HNC Lock Complex Project;

THEREFORE, BE IT FURTHER RESOLVED, that the Board of Directors of South Central Industrial Association on October 18, 2005 unanimously acknowledged, adopted, supported and submitted this resolution as set forth above with copies distributed to our local, state, and federal delegation under the auspices of TLCD.

Chet Morrison, SCIA President

Kirk Meche, Infrastructure Chair & Director

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Speaker 5: Leslie Suazo, Terrebonne Parish Government

I am the Director of coastal restoration and preservation for Terrebonne parish. I here this evening on behalf of our parish president Donald Schwab who could not be here this evening. I have some prepared comments from President Schwab. There is parish Council meeting this evening, which requires his presents as well as other council members. Attached is the letter that was read.

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DON SCHWAB
PARISH PRESIDENT

OFFICE OF THE PARISH PRESIDENT

TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. Box 6097
HOUMA, LOUISIANA 70361



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November 16, 2005

Colonel Richard Wagenaar
District Engineer, New Orleans
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Colonel Wagenaar, Ladies and Gentlemen:

I am writing to you today on behalf of the Terrebonne Parish Consolidated Government and the citizens of Terrebonne Parish to express our full support for the timely construction of the Lock Complex on the Houma Navigation Canal.

As we all know, the combined impacts of Hurricanes Katrina and Rita have left many citizens of Terrebonne Parish facing the same recovery and rebuilding challenges as our neighbors to the east. During Hurricane Rita, our lack of comprehensive hurricane and flood protection left thousands of our area homes and businesses exposed to the impacts of a storm whose path was 200 miles from our shores. Our existing drainage levees were simply not adequate to withstand the forceful storm surges caused by this storm, and many of our citizens experienced flooding for the first time. This painful experience has reinforced the urgent need to protect life and property, and at the same time, protect our coastal wetlands, which are experiencing the most rapid loss in Louisiana.

As an integral part of the Morganza to the Gulf Hurricane Protection Project, the lock complex on the Houma Navigation Canal (HNC) has been under discussion for well over a decade, primarily due to its possibilities as a multi-purpose structure. In 1997 the U.S., Army Corps of Engineers published a report on the lock complex which concluded that the structure "would provide direct and indirect benefits to environmental (marsh) habitat in the study area...The report also recommended that the detailed design phase of the lock be expedited....".

The HNC has been documented as a source of salt-water intrusion into the Terrebonne Basin. During seasonal low water stages, salt water travels up the HNC and enters the Gulf Intracoastal Waterway (GIWW) traveling eastward from the Terrebonne system, finding its way into the neighboring Barataria system. The State of Louisiana in its coastwide eco-system report, Coast 2050, addressed such incidences of high salinity.

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Among the most anticipated Coast 2050 strategies is the establishment of "multi-purpose control of navigation channels" in order to prevent saline waters from continuing to damage marshes to the north.

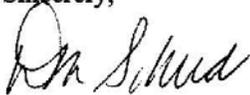
The objective of this Coast 2050 strategy as it applies to the HNC Lock complex is multifaceted: it would make more efficient use of Atchafalaya River water and sediment flow, as well as maintain salinity regimes favorable for area wetlands. Its current operational plan would restrict saltwater intrusion, but with minor modifications, may also be used to distribute freshwater and sediments during times of high Atchafalaya River flow.

This freshwater is now and will continue to be a critical element in the maintenance of the remaining marshes in the Terrebonne Basin. The lock complex affords ample opportunities to improve the distribution of freshwater throughout the system, thereby enhancing the sustainability of adjacent marshes.

Because of its many systemic benefits to the Terrebonne basin and surrounding areas, the citizens of Terrebonne Parish have taken an active role in discussions regarding the HNC Lock complex and the Morganza to the Gulf project in general. Our citizens have also demonstrated their willingness to contribute financially to our comprehensive hurricane protection and coastal restoration needs. Now, we look to our state and federal leadership for their commitment to the expeditious implementation of this crucial project.

Thank you for the opportunity to provide these comments this evening, and I respectfully request that you include this statement as a part of your official record of these proceedings.

Sincerely,



Don Schwab
Parish President

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Speaker 6: Jerome Z. TLCD

I am the executive director of TLCD. I would like to make a few comments in addition to the written comments that I will submit. Obviously, we are in desperate need of Hurricane protection. That was demonstrated in the recent event that storm 200 miles flood in an excess of 10,000 home causing significant amount of damage. Had those storms, either Rita or Katrina hit 30 miles either way more then likely our landscape would look like very similar to Plaquemines and St. Bernard. We are encouraging Congress to please authorize this project, and to move forward so we can implement all these features to provide hurricane protection that is desperately needed. We have been for so long, it been long wait. That being said regarding the lock it important in addition to the obvious flood control features when you consider the environmental features alone the lock is justified in terms of its construction and its need. As it mention it would provide environmental benefits to the region. When I say region I it not just Terrebonne parish would also provide benefits to La Farouche parish as well. Also the drinking water benefits, it provides opportunity to reduce the need to upgrade drinking water system for Terrebonne parish as well as navigation benefits safe harbor that the lock would provide. So in behalf of TLCD we asked that you please expedite the study and receive Authorization for the MtoG project. As was mention, the council is having a meeting and Council member Clayton Voisin could not be here so asked me to read a statement in his behalf. Attached is the letter that was read.

November 16, 2005

TO WHOM IT MAY CONCERN:

RE: Houma Navigation Canal Lock

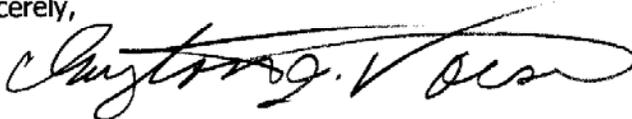
Please accept these comments on the Houma Navigation Canal Lock Environmental Impact Statement. I represent District 7 of the Terrebonne Parish Council. The Houma Navigation Canal Lock will be located in my district. This district was severely affected by Hurricanes Lili (2002) and Rita (2005) as well as Tropical Storms Bill (2003) and Isidore (2002). As Councilman for this district, I had the unfortunate responsibility of assisting my constituents in response to these events. These events have had a devastating and long lasting impact on my community. I am not sure when we will recover.

In that light, my first comment concerning the Houma Navigation Canal Lock is we should move to build this structure as soon as humanly possible. My community cannot survive another set of storms such as those listed above. My community will evaporate and die without significant hurricane protection.

Considering the need for quick construction of the lock, I would suggest to you that environmental impacts from the lock are more than offset by the environmental benefits of the project. It is my understanding that the structure will be operated to prevent storm surges and to prevent saltwater intrusion during the dry periods of the year. If we are successful in addressing those issues through this lock, we will have an incredible and far-reaching beneficial impact to Terrebonne Parish. Storm surges and saltwater intrusion have caused tremendous damage to my community. I would suggest that prevention of those two forces would provide mitigation for this structure.

I thank you for your consideration of these comments and urge you to move as quickly as possible in completion of this structure.

Sincerely,



Clayton Voisin, Councilman District 7
Terrebonne Parish Council

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Speaker 7: Cyrus Theriot

President of the Harry Borg Corporation. Before consideration of building the lock in HNC, there is an active faulting and land subsidence on marsh to the north and NW of alignment of MtoG. It reaches F1, F2, and E1. I would have the corps reconsider the lower alternate levee alignment that was submitted prior to this meeting. Rock the HNC, bank stabilization all the way to the gulf, to avoid further loss of adjacent marsh.

Speaker 6: Reggie Borg.

Area between Cocodrie and Dulac – when water comes up HNC, this area floods. Scrap the whole project, and do something immediately. Use flood barges to be sunk in a storm to stop the storm surge for short-term solution. Would the floodgates and fresh water diversion actually protect the marsh? A lot of money would be spent on something that is not proven. Corp is responsible or partially responsible for what happened in New Orleans. Would the HNC become the next Industrial canal, and repeat the flooding potential as in New Orleans? What will keep that from happening? Proposes a barrier, any structure further out. From Isle Jean Charles to east bayou Lafourche Isle Jean Charles west to Cocodrie ASAP. Anything rock, ships barges anything that could put some kind of restriction there. Then some kind of floodwall in bayou Dulac. We elevate LA 57 from Cocodrie 8 to 10 feet whichever feasible, near term possible. Then all the way to Dulac following the canal the barges would be set all long Dulac pontoon bridge. At the same time, elevate the already existing forced drainage system. What can we do to protect ourselves in the next couple of years?

Speaker 7: Simone Theriot Maloz

I am the executive of restore or retreat. Restore or retreat is a non-profit coastal advocate group. That was formed by concerned stakeholders for the long term and large-scale restoration of Bariteria and Terrebonne basin. Although we key inters in the third delta connivance channel. We are here to show our support in this as well. A couple of weeks ago we met with the secretary of DNR and he suggest after Katrina and Rita that we may change our name to protect or retreat. The important think in both restore or retreat and protect or retreat is the fact that is or retreat. We were stared 5 years ago by concerned stakeholders from Terrebonne and Lafourche and our primary goal long-term large-scale restoration. With the proposed HNC lock complex would provide do all the things restoration project need to do. It needs to control fresh water, and it needs block salt, it also needs to provide economic avenue as well as provide vital protect. We believe this it does all this so because of that we are prepared to show our support. As always restoration has been wait around for a long time not only for things like this, the third delta, Coast 2050, LCA. There is not great time or need then now. It is very import that we stick to efficient and effective timelines, and we strictly adhere to those. The time is now. We must speed this up. We have to think out of the box. Some thing must be done or we will be forced to retreat.

Speaker 8: Roy Francis, Gulf Island Inc.

I am here representing Gulf Island fabricators. GIF is oil platform construction company. We employee about 1,100 individuals. About 100 of our employees were impacted by Rita. Our HQ was flooded with about 10 inches of water. HNC Lock is critical to the economic of this region if it is built and sized that will accommodate the industry. Please expedite the EIS. Environmental benefits are self-mitigating. HNC is our access to the Gulf of Mexico. Most of the company here are Oil and Gas related company. We fabricate very large structures that go all over the world. A lot of our competition is overseas company. We definitely need a structure that has a floodgate that is 200 foot wide with 25-foot wing walls. It is critical for us so we can barge our structures that are built here. When you look at Terrebonne parish, a lot of other areas of state have better means of evacuation even New Orleans or Lafayette. We are one of the metropolitan areas that does not have any interstates system. We have no levee system per say or access to interstate system. Even more so, flood protection is critical here. In behalf GIF I asked that we expedite this. I thank you.

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Speaker 9: Ed Landgraf

I am here today representing the chamber commerce coastal committee and the Terrebonne Parish CZ mngt on that I am the oil industry representative. I think both committees agree that this project is on one the top priorities in our Parish. We advocate the speedy design and implementation of this project. Use Energy Bill funds to help construct and speed things along. The energy bill funds is the off shore revenue that will be coming to LA. Both committees also feel that the project is self-sustaining. Channel FW into marsh area will facilitate growth and cut down on coastal land loss. Thus, protect environment and the people who live here from storm surge. I would like to switch gears and talk about the economics of the project and the impact on the area. Over 600,000 barrels of crude oil is transported through Terrebonne Parish. Six of the top ten taxpayers in Terrebonne Parish are oil and gas companies. By the lock, keeping the marsh healthy It will help protect the oil & gas industry. That oil & gas infrastructure is a significant player in the tax revenue that is generate in the parish and one of the fundamentals of the economy in the parish, state, and nation. As know national revenue that is generate by the oil and gas that comes through south Louisiana is 5 to 7 billion dollars. So, we really need to protect our infrastructure here. One way is to protect our marshes, and one way do that is to have the HNC Lock structures in place to protect those environments that protect the infrastructure. Three words I like to use are Easy as PIE – people, infrastructure, and environment. I would just like to advocate we move forwarded this project in a timely fashion. Not belabor the fact of the recent hurricanes. This area is vital to the energy and security of the nation and having a project like this in place will help protect our economy for future generations. Thanks you.

Speaker 10: Thomas Martinez, Dulac resident

The lock is too far south. Much of that area was lost already, Rita & Katrina made it worse. Residents are moving up to Houma anyway. Move further north around Dularge, at the pontoon bridge. Put a lock in Bayou Grand Caillou in that area. Move levee alignment north.

Speaker 1: George Bourg. Spoke a 2nd time at the end:

About 15 years ago the original proposal was to make a floodgate on BGC near the bridge and a 2nd floodgate on the channel by Falgout canal. That was the original proposal. It was a lousy proposal then and a lousy proposal now, because you are talking about leaving half a million gallons of diesel outside the levee, 2,000 jobs outside the levee, and millions of dollars of businesses outside the levee, and that why later the proposal was to move it south of Dulac and include Dulac inside the levee. For that reason it was a very bad idea, as for as money coming into Terrebonne parish to leave Dulac outside the levee. The other thing I like to say is: Mr. Francis has said that the floodgate should be 20 foot deep. He should have also said how long and how wide GIF would like it to be. This is what I remember about 15 years ago GIF participated in a project to widen out the floating pontoon bridge at Dulac; So GIF could get projects out to the Gulf of Mexico. So you really need to ask them what is the length and width of set of locks they need. That is the key to how big the locks should be.

Speaker 11: Troy O., Dulac resident

What is the purpose of this meeting? Because, I have been coming to Corps of Engineers meeting for a long time. What do we get from the Corps? All these people come here to give comments and everything else it is all in vain. This is only my own personal feeling, my own personal opinion. Cuz I was born and raised in Dulac. I have been going to Corps meeting for a long time. As long as the Corps has control over it; of influence, we will never have anything. You know what I think we should do. We should hire the people from the Netherlands let them come rebuild our marsh and coastline because them people live below water. They must know something. Its our tax that money that keeps paying all this. So I think we should pay our tax get something out of this I been going to Corps of Engineer meeting for the last 15 or 20 years, long time. What do we got? All these people come and spend there time and what same thing? Same sing song. We feel like no one hears us. You know what it time it to quit.

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Speaker 12: Tim Bollhaltor

Main reason I am here is to say it is long over do to get a lock on the HNC. It needs to be done. In another since we have to ask Why is the HNC there to start with? The fact is the Houma being a populated area does not have any deep water. So we need to have HNC to supply deep-water port for the industry. Our industry in Houma is little bit different then any regular port such as New Orleans or Lake Charles. We have in Houma we essentially build offshore structures. Offshore structures are huge and are also planed when they go in and out. We actually need have much larger lock then we would at the Panama Canal lock at 110 feet by 400 feet what ever it is. We need some more like 300 feet by quarter of a mile. Now you say that is unrealistic. The thing is we have the engineer here and the industries that are asking for have the engineering also to do a barge type lock system. That could be closed and locked that would only open when we move these structures in and out. We do not need a Panama Canal lock, actual small Panama Canal lock use old technology probably more expensive then a larger levee system with gates at each end that would only have to be opened when we move large structures. That is what we need in the Houma area. Smaller lock should be in place to handle normal traffic, but a larger lock at least 20 feet deep to handle the larger structer from GIF and other fabricators going out to the Gulf of Mexico. And, servicing the offshore oil rigs. Again a lot of time they have weeks of planning before these things have are moved. It not like we to make a call to open the locks and they go then they go through. They can actually plan ahead to have the lock open to go on through. Another thing the channel lock should remain closed most of the time. And have North South fresh water flow you can't allow the salt water to come up. What it does is ruins the water table. Once the water table goes the vegetation goes and it keeps retreating back and back. So my suggest would be to get the industries involved, Mecdurment, GIF, and others company along with the ship yards to help them design a sinking barge type system for a large unconventional lock. Build it here locally. Generally, leave the Corps of Engineers out of it. Just give us the go ahead to do it. And go ahead and do it for our own people. That is all I have

Speaker 13: Bobby Bartell

I am with shipyard in Houma and... etc. And have worked for GIF. Maybe I can straighten out a few things. Gulf Island has been involved in a lot of the meetings, I have been to lot of meetings that have been involved with this lock... The way the lock is set up they feel is adequate for their needs, as of now. It started out being a 1200-foot lock system now it an 800 by 110 but the gate next to it is adequate to take care of what the local companies concerns are. As far as I have been told. As far as the industry is concerned, it meets the need. We need the system. I know this is called and EIS it needs to be an EEIS and Emergency EIS. The MtoG including the complete lock complex needs to be built or we will not be here anymore. Thank you.

**Comment Letters Received
During 30-Day Scoping Period
Listed By Date Received:**

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

September 20, 2005

Mr. Nathan Dayan
U.S. Army Corps of Engineers
PM-RS
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Dayan:

Please reference the Notice of Intent (NOI) to Prepare a Draft Environmental Impact Statement (DEIS) for the construction of the Mississippi River and Tributaries – Morganza, Louisiana, to the Gulf of Mexico Project, Houma Navigation Canal (HNC) Lock Complex and Associated Structures to include Levee Reach G1, HNC Lock Access Road, HNC Closure Dam, HNC Lock and Floodgate Complex, Levee Reach F1, Bayou Grand Caillou Floodgate, and the Sand Sources for those levee reaches. That DEIS would evaluate the potential impacts of the Corps of Engineers' (Corps) proposed plan on fish and wildlife resources for which the U.S. Fish and Wildlife Service (Service) is responsible, including federally listed threatened and endangered species. The Service offers 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 Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Migratory Bird Treaty Act (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The proposed HNC Lock Complex project-area is dominated by coastal wetlands including forested wetlands (bottomland hardwoods and swamps), coastal marshes (fresh, intermediate, brackish, and saline) and associated shallow open water. Those habitats provide suitable escape, feeding, breeding/spawning, brood rearing/nursery, and wintering sites for a wide variety of aquatic, estuarine and wetland-dependent organisms for which the Service has Federal-trust conservation responsibilities (e.g., migratory waterfowl, wading birds, shorebirds, seabirds, other waterbirds, neotropical migratory songbirds, threatened and endangered species, and interjurisdictional fisheries).

Coastal Wetland Restoration Projects and Strategies

In addition to mitigation of the direct wetland impacts associated with the construction of proposed HNC Lock Complex features, the Service's foremost concern is the proposed project's potential impacts on coastal wetland restoration opportunities, strategies, and projects. The Terrebonne Basin, in which the HNC Lock Complex Project is located, has lost over 200,000

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acres of land (an amount greater than any other coastal basin) during the period 1932 to 1990 (Louisiana Coastal Wetlands Conservation and Restoration Task Force 1993). Because of anticipated high future loss rates, Subprovince 3 (contains the Teche/Vermilion, Achafalaya, and Terrebonne Basins) is expected to lose more land than any other Subprovince within coastal Louisiana (U.S. Army Corps of Engineers 2004a).

To address those extensive future coastal wetland losses, the Louisiana Coastal Area (LCA) Ecosystem Restoration Study recommended construction of 15 Critical Near-Term Projects (U.S. Army Corps of Engineers 2004b). Two of those projects might be affected by construction of features associated with the HNC Lock Complex. One of those projects, the Multi-purpose Operation of the HNC Lock Complex, would seek to design and operate Complex features to improve the seasonal distribution of Atchafalaya River fresh water rather than allowing that freshwater to be efficiently shunted into the Gulf by the HNC. During the Morganza to the Gulf programmatic feasibility study, the Service strongly recommended that improved freshwater distribution be made a co-equal project purpose of the Morganza Project to avoid the loss of a critically important wetland conservation and restoration opportunity. Accordingly, the Chief of Engineers Report stated that Morganza to the Gulf Project features "will be designed and operated to achieve coastal wetland conservation through the improved distribution of freshwater inflows to wetlands wherever feasible. The specific designs and operating plans will be formulated in consultation with the interagency habitat evaluation team."

Despite that assurance, the engineering and design of the HNC Lock and associated Bayou Grand Caillou Floodgate have proceeded well ahead of the system-wide hydrologic modeling effort needed to determine what effects those project features might have on regional freshwater inputs from the Atchafalaya River. Due to increasing project cost estimates, some project supporters have recently indicated that any wetland restoration-orientated project components should be funded through wetland restoration programs and not Morganza Project funds. Because of the time typically required for Federal projects to be authorized and funded through the Water Resources Development Act, however, funding for separated wetland restoration features would not likely be available in time to be incorporated into the ongoing engineering and design of the HNC Lock Complex features. Consequently, the Service has once again become, despite assurances to the contrary, concerned that administrative and funding issues may preclude the inclusion of this vital project purpose in the design and operation of Complex features. Failure to design and operate those features in an environmentally sustainable manner may, in turn, jeopardize the project's desired storm-protection functions if loss of the surrounding wetlands is not effectively addressed. That outcome, may result in the need for additional costly projects to raise and maintain levees, or other Federal projects to restore the protection for local communities that was once provided by area wetlands.

Because Atchafalaya River freshwater flows exit the HNC via Falgout Canal, Bayou Dulac, Bayou Grand Caillou, and continue eastward in the Gulf Intracoastal Waterway (GIWW) from the HNC, Complex Project effects on those flows would need to be determined under existing and future flow conditions. If Lock Complex features would reduce existing and/or future freshwater flows through the above-mentioned waterways, then the resulting adverse wetland impacts would need to be mitigated. From the out set, therefore, complex features should preferably be designed and operated to increase beneficial freshwater flows to those associated

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wetland receiving areas.

A second LCA wetland restoration project that the proposed HNC Lock Complex Project might affect is the Convey Atchafalaya River water to Northern Terrebonne Marshes Project. Components of that project would distribute the existing Atchafalaya River freshwater flows to critical areas of need within the northern Terrebonne Basin marshes, and other features would increase the supply of those freshwater flows, if practicable. Aspects of this restoration project which focus on the GIWW between Houma and Larose would require that the Complex Project effects on existing and future GIWW flows east of Houma be determined. Most importantly, however, would be Complex Project effects on anticipated future increased freshwater flows via the GIWW.

Because of sedimentation within the Atchafalaya Bay¹, the Corps' Waterways Experiment Station has determined that stages on the Lower Atchafalaya River, at its junction with the Avoca Island Cutoff Canal, will rise by over 3.0 feet during the 50-year period from 1985 to 2030 (Donnell and Letter 1992a)

Presently, high stages on the LAR result in substantial eastward freshwater flows into the northern Terrebonne Basin marshes via the Avoca Island Cutoff Channel and the GIWW. Consequently, future LAR stage increases will result in increased freshwater flows to the HNC and adjoining wetlands. For this reason, the LCA Near-Term Plan has included projects which would take advantage of increased freshwater inflows from the Atchafalaya River, Bayou Lafourche, and any other available source. Hence, any activities that would reduce those anticipated future freshwater flow increases will undermine one of the primary natural processes for maintaining deteriorating Terrebonne Basin wetlands and may result in substantial wetland losses compared to the no-action condition. Those wetland losses would not only reduce the sustainability of project-area coastal wetlands, but also the coastal communities presently protected from storm surges by those wetlands.

Because those anticipated future flow increases are vital to the sustainability of northern Terrebonne Basin marshes, as well as the coastal communities which they protect, the Service recommended that Morganza Project features be designed to accommodate not only existing freshwater flows, but also future increased flows. The Corps has already agreed (U.S. Army Corps of Engineers 2002) to this recommendation. The Morganza Project features to which this recommendation applies consist primarily of the west GIWW Floodgate, the Falgout Canal Floodgate, the Bayou Grand Caillou Floodgate, the Grand Bayou Floodgate, and the Falgout Canal and the Louisiana Highway 57 fish and wildlife structures. The DEIS should quantify existing flows through the above-mentioned waterways/structures during all stages of the annual hydrograph, and should provide estimates of future flows during all stages of the annual hydrograph. Furthermore, the basis for future flow estimates should be clearly explained as well as any assumptions used in making those estimates.

¹ "Active delta growth in the Atchafalaya Bay has resulted in the elongation of the river's course and a rise in the water-surface elevation at the end of the levee." (Donnell and Letter 1992b).

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Via letter dated December 9, 2002, the Service submitted a December 9, 2002, Planning-Aid letter to the New Orleans District Corps of Engineers providing HNC Lock Complex design and operation recommendations to achieve improved seasonal freshwater distribution benefits. Those comments identify a variety of environmentally beneficial design and structure operation recommendations (copy attached). Accordingly, we recommend that those and other means for achieving improved seasonal freshwater distribution should be evaluated in the forthcoming DEIS.

In 1997, the North Lake Boudreaux Basin Freshwater Introduction Project was authorized under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). That project would enlarge Bayou Pelton to transport HNC freshwater into the northern Lake Boudreaux Basin. To assess potential Lock Complex Project effects on that restoration project, the DEIS should compare present and future with- and without-Complex Project HNC stages at Bayou Pelton during periods of high, medium, and low Atchafalaya River flow. Because the freshwater introduction would occur via tidal pumping for roughly 16 to 18 hours of each day, comparisons during each of those periods must involve at least a 2-week-long sequence of hourly (or more frequent) stage data in order to properly assess Complex Project effects on this restoration project.

Finally, the selected HNC Lock Complex plan should be consistent with the long-term management and restoration strategies identified in the 1993 Louisiana Coastal Wetlands Restoration Plan (Louisiana Coastal Wetlands Conservation and Restoration Task Force 1993), the Coast 2050 Plan (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998), and the keystone strategies developed for the LCA Critical Near-Term Plan (U.S. Army Corps of Engineers 2004b). Such consistency is also required by Section 303(d)(1) of CWPPRA. Consequently, this consistency requirement should be used to guide selection of project alternatives, and the DEIS should include a section discussing any decisions made regarding the application of those consistency requirements.

Threatened and Endangered Species

According to the NOI, the DEIS will address potential impacts to federally listed threatened and endangered species that may occur within the proposed project area. Those species include the Louisiana black bear (*Ursus americanus luteolus*), the West Indian manatee (*Trichechus manatus*), the bald eagle (*Haliaeetus leucocephalus*), brown pelican (*Pelecanus occidentalis*), piping plover (*Charadrius melodus*) and its' critical habitat, the pallid sturgeon (*Scaphirhynchus albus*), and 5 species of sea turtles. Habitat requirements of those species are described below to facilitate your evaluation of potential project-related impacts to those species. Your determination of project impacts to each of those species, their designated critical habitat, and the supporting rationale for that determination, should be provided to the Service for review and/or concurrence, either within the forthcoming DEIS or as a separate Biological Evaluation. In either case, consultation under the ESA should be completed prior to issuance of the final EIS.

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Louisiana Black Bear

The threatened Louisiana black bear (*Ursus americanus luteolus*) is primarily associated with forested wetlands; however, it utilizes a variety of habitat types, including marsh, spoil banks, and upland forests. Within forested wetlands, black bear habitat requirements include soft and hard mast for food, thick vegetation for escape cover, vegetated corridors for dispersal, large trees for den sites, and isolated areas for refuge from human disturbance. Remaining Louisiana black bear populations occur in the Tensas River Basin, the Upper Atchafalaya River Basin, and coastal St. Mary and Iberia Parishes. The primary threats to the species are continued loss of bottomland hardwoods and fragmentation of remaining forested tracts. In addition to habitat loss, human-bear conflicts are a major threat to the conservation and protection of the Louisiana black bear. Human-caused losses include collisions with automobiles, intentional or illegal killing, and removal from the wild which is necessary when bears that have become habituated to human attractants pose a risk to public health or safety.

Louisiana black bears, particularly pregnant females, normally den from December through April. Preferred den sites include bald cypress and water-tupelo trees with visible cavities, that have a diameter at breast height of 36 inches or greater, and which occur in or along rivers, lakes, streams, bayous, sloughs, or other water bodies. In areas where suitable den trees are uncommon, Louisiana black bears often den in shallow burrows or depressions within areas of dense cover. To further protect denning bears, the Service (through the final listing rule published on January 7, 1992, in Volume 57, No. 4 of the Federal Register), has extended legal protection to actual or candidate den trees. As the terms imply, "actual den tree" refers to any tree used by a denning bear during the winter and early spring seasons. Candidate den trees are defined in the final rule as bald cypress (*Taxodium distichum*) and tupelo gum (*Nyssa* sp.) with visible cavities, having a diameter at breast height of 36 inches or greater, and occurring in or along rivers, lakes, streams, bayous, sloughs, or other water bodies. Results of recent research involving Louisiana black bears indicate that they will use virtually any species of tree for a den site if it is large enough and has a cavity, as described above.

Manatee

Federally listed as endangered, West Indian manatees occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams, during the summer months. Manatees have been reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of Louisiana. They 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.

Bald Eagle

Threatened bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in baldcypress trees near fresh to intermediate marshes or open water in the southeastern Parishes. Areas with high numbers of nests include Lake Verret Basin south to Houma, the southern marshes/ridge complex from Houma to Bayou Vista, the north shore of Lake Pontchartrain, and the Lake Salvador area. Eagles also winter, and infrequently nest 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).

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Brown Pelican

Endangered brown pelicans are currently known to nest on Raccoon Point on Isles Dernieres, Queen Bess Island, Plover Island (Baptiste Collette), and islands in the Chandeleur chain. Pelicans change nesting sites as habitat changes occur. Thus, pelicans may also be found nesting on mud lumps at the mouth of South Pass (Mississippi River Delta) and on small islands in St. Bernard Parish. In winter, spring, and summer, nests are built in mangrove trees or other shrubby vegetation, although occasional ground nesting may occur. Brown pelicans feed in shallow estuarine waters, using sand pits and offshore sand bars as rest and roost areas. Major threats to this species include chemical pollutants, colony site erosion, disease, and human disturbance.

Piping Plover

Federally listed as a threatened species, the piping plover 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. 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, sandflats, 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.

On July 10, 2001, the U.S. Fish and Wildlife Service designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132). Their designated critical habitat identifies specific areas that are essential to the conservation of the species. The primary constituent elements for piping plover wintering habitat are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. Constituent elements are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Important components (or primary constituent elements) of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation.

Pallid Sturgeon

The pallid sturgeon is an endangered fish found 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 riverine conditions that can be described as large, free-flowing, turbid water with a diverse assemblage of physical habitats 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 dam construction have affected this species throughout its range.

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Sea Turtles

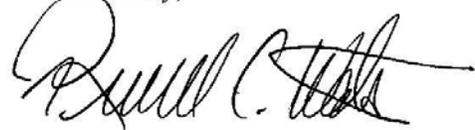
Endangered and threatened sea turtles forage in the nearshore waters, bays and sounds of Louisiana. The National Marine Fisheries Service is responsible for aquatic marine threatened or endangered species. Please contact Eric Hawk (727/570-5312) in St. Petersburg, Florida, for information concerning these species.

The status of Federally listed and proposed species is continually updated as new information becomes available. Therefore, if the potential effects of the proposed project on those species and their critical habitat have not been analyzed within one year, we recommend that you contact this office for an updated list of species and/or critical habitat that may be impacted by the proposed project prior to conducting your analysis. Also, if the scope or location of the proposed work is changed, we recommend that you contact this office as soon as such changes are made.

Under the January 22, 2003, Partnership Agreement for Water Resources and Fish and Wildlife, the Corps and the Service have formally committed to work together to conserve, protect, and restore fish and wildlife resource while ensuring the environmental sustainability of our Nations's water resources. Accordingly, the Service would be pleased to serve as a cooperating agency in developing the draft and final EIS for the proposed project in accordance with applicable NEPA/Council of Environmental Quality guidance. Our participation would be specifically limited to: 1) participating in meetings and field trips to obtain baseline information on project-area fish and wildlife resources; 2) evaluating the proposed project's impacts to wetlands and associated fish and wildlife resources, and assisting in the development of measures to avoid, minimize, and/or compensate for those impacts; and, 3) providing technical assistance in the development of a Biological Assessment, if necessary, describing the impacts of the proposed activity on Federally listed threatened or endangered species and/or their critical habitat.

We appreciate the opportunity to comment on the NOI for the proposed project and look forward to evaluating the forthcoming DEIS. Should you have any questions regarding our comments, please contact Ronny Paille (337/291-3117) of this office.

Sincerely,



Russell C. Watson
Supervisor,
Louisiana Field Office

Enclosure

cc: DOI, OEPC, Washington, DC
DOI, REO, Albuquerque, NM

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures

FWS, Arlington, VA (BAP&HC –ERT)

FWS, Atlanta, GA

NMFS, Baton Rouge, LA

EPA, Dallas, TX

Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA

Louisiana Department of Natural Resources (CMD), Baton Rouge, LA

Louisiana Department of Natural Resources (CRD), Baton Rouge, LA

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

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

November 9, 2005 F/SER46/RH:jk
225/389-0508

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

Dear Mr. Martinson:

NOAA's National Marine Fisheries Service (NMFS) has received the October 16, 2005, electronic mail transmittal of the "Notice of Study Initiation and Environmental Impact Statement (EIS) Scoping Meeting for the Mississippi River and Tributaries-Morganza, LA, to the Gulf of Mexico Project: Houma Navigation Canal (HNC) Lock Complex and Associated Structures to include Levee Reach G1, HNC Lock Access Road, HNC Closure Dam, HNC Lock and Floodgate Complex, Levee Reach F1, Bayou Grand Caillou Structure, and the Sand Sources for these Levee Reaches." The project is located in Terrebonne Parish, Louisiana. The U.S. Army Corps of Engineers (USACE) proposes to conduct scoping and draft an EIS to evaluate alternatives or modifications to the tentatively selected plan previously identified in the 2002 Programmatic EIS (PEIS) for the Mississippi River and Tributaries, Morganza, Louisiana, to the Gulf of Mexico, Hurricane Protection (Morganza to the Gulf) project.

The mission of NMFS is stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems. To fulfill this mission, NMFS strives to conserve, protect, and manage living marine resources in a way that ensures their continuation as functioning components of marine ecosystems, affords economic opportunities, and enhances the quality of life for the American public. Our stewardship efforts will be of particular importance for this project because wetlands across Louisiana, especially those in the project area, are experiencing rapid loss and providing declining nursery and foraging habitat supportive of economically important fisheries.

NMFS recognizes the need for hurricane protection in south Louisiana to protect life and property and has been an active participant in the review of flood protection projects for Terrebonne Parish. NMFS will continue to work with all stakeholders to identify and address issues of concern such that adverse impacts to wetlands and marine fishery resources are avoided, minimized, and mitigated.

The tentative plan for the HNC lock complex and associated structures was identified in the PEIS. A preliminary revised draft feature and alignment figure was provided to the resource



agencies as part of the Project Delivery Team (PDT) coordination process on March 24, 2005. Based on that information, NMFS estimates that the preliminary revised plan could fill up to 60 acres of intermediate and brackish marsh, dredge 117 acres of marsh, and, with reach G1, enclose 450 acres of marsh and shallow water bottoms. Hundreds of acres of additional marsh and tidal swamp could be hydrologically isolated on a variable frequency and duration depending on the manner in which the HNC lock is operated (e.g., closed during storm events only or closed with attempts to reduce saltwater intrusion). Rapid wetland loss in Louisiana and the study area makes these induced losses of habitat and associated fishery support functions cause for substantial concern. Due to the probability and large scope of adverse impact to areas designated as essential fish habitat (EFH) and related marine fishery resources, NMFS recommends the following issues, impacts, and alternatives be addressed during the preparation of and in the draft EIS (DEIS) for this project.

EFH and Marine Fisheries Resources

Portions of the proposed project are located in areas identified as EFH for many marine fishery species and life stages. EFH in the study area has been designated for larval, postlarval, juvenile, and sub-adult life stages of white shrimp, brown shrimp, and red drum. Additionally, if nearshore (e.g., Cat Island Pass) or offshore (e.g., Ship Shoal) borrow sites are considered as sand sources for the F1 and G1 levee reaches, the study area would include EFH for adult white shrimp, brown shrimp, and red drum; juvenile, larval, subadult and adult Spanish mackerel; juvenile and subadult bluefish, all life stages of cobia, juvenile and adult bonnethead shark, juvenile Atlantic sharpnose shark, and adult little tunny. Specific categories of EFH that have been designated in the project area include estuarine wetlands; water column; submerged aquatic vegetation; and mud, sand, and shell substrate in the vicinity of the proposed levees and potential interior borrow areas. Additionally, marine water column, non-vegetated bottoms, and continental shelf features have been designated as EFH in potential nearshore and offshore borrow areas. A preliminary summary table of managed species, life stages, and EFH associations is enclosed for inclusion in the DEIS. Detailed information on federally managed fisheries and their EFH is provided in the 1998 generic amendment of the Fishery Management Plans (FMP) for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council (GMFMC). The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (P.L. 104-297). Information on EFH for highly migratory species managed by NMFS can be found in the Atlantic Billfish and Atlantic Tunas, Swordfish, and Sharks FMPs prepared by the Department of Commerce.

Wetlands in the project area consist of fresh, intermediate, brackish, and saline marsh. In addition to being designated as EFH for red drum, brown shrimp, and white shrimp, these wetlands provide nursery, foraging, and predator refugia habitats that support numerous economically important marine fishery species such as spotted seatrout, southern flounder, black drum, gulf menhaden, striped mullet, sand seatrout, Atlantic croaker, 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, snapper, and groupers) and highly migratory species managed by NMFS (e.g., billfishes and sharks). The relative importance of fishery resources in the project vicinity is exemplified by commercial fishery landings that were valued at \$42.3 million in dockside landings from the Port of Dulac-Chauvin, Louisiana, which ranked second in Louisiana

and ninth in the nation in 2003¹. The DEIS should thoroughly evaluate the potential impacts of all project alternatives on EFH and associated marine fishery resources. Project features should be selected that avoid, minimize, or compensate for adverse impacts to marine fishery resources.

Protected Resources

The proposed project area may be within the known distribution limits of federally listed species that are under the purview of NMFS. In accordance with the Endangered Species Act (ESA) of 1973, as amended, and the Marine Mammal Protection Act of 1972, as amended, it is the responsibility of the USACE to identify actions that may affect endangered or threatened species, their critical habitat, or result in a takings or harassment of marine mammals. For more information on these requirements, please contact our Protected Resources Division at the letterhead address.

Hydrology and Hydraulics

NMFS remains convinced that information is needed from system-wide modeling presently under development by the New Orleans District (NOD) to evaluate environmental impacts for various project features prior to the identification of preferred alternatives. Adequate system-wide and area-specific hydraulic modeling should be completed to determine the timeliness of draining floodwaters from enclosed wetlands. The depth, duration, and spatial extent of flooding and water salinity, both in channels and interior wetlands to be enclosed, should be modeled for all potential alternatives. The goal of the modeling is to ensure excessive pre-storm water levels and salinity are restored as soon as practicable to minimize adverse impacts to wetlands. These efforts should be coordinated with the PDT, including the Habitat Evaluation Team (HET), in advance and as an integral step in the selection of a preferred alternative. Modeling methods, data, and the results should be discussed in the DEIS to document and demonstrate the basis for selecting an alternative.

The proposed lock complex and associated structures have the potential to maintain or improve the distribution of freshwater into the Terrebonne Parish marshes, as well as adversely impact marsh and fishery access to and productivity of those habitats. Hydrology in portions of the overall Morganza to the Gulf project study area is substantially influenced by freshwater flows from the Atchafalaya River through the Gulf Intracoastal Waterway (GIWW). The HNC lock complex and associated structures should be evaluated to ensure maintenance of existing and projected future flows from the Atchafalaya River to the project area wetlands. NMFS commends the NOD for efforts thus far to investigate project impacts to future flows, and we support continued coordination by the NOD with the HET through the PDT process. However, we recommend full consideration be given to data available from other studies (e.g., Lower Atchafalaya Basin Re-evaluation Study), which suggest flows will increase in the future without the lock complex and associated features in place. The DEIS should quantify existing and future flows into the project area and evaluate impacts on those flows with the various project features. The methods and data to quantify the flows should be provided to and coordinated with the HET. These features then should be designed, constructed, and operated to maintain or mitigate loss of

¹ U.S. Department of Commerce. 2004. Fisheries of the United States, 2003. Prepared by the National Marine Fisheries Service, Office of Science and Technology, Fisheries Statistics and Economics Division. Silver Spring, Maryland.

increased future flows, as well as enhance flows under the authorized dual purpose of the project to reduce wetland loss.

Structure Operation

NMFS is pleased with the USACE's intent to maintain the levee as a leaky system by including and operating locks, floodgates, and environmental water control structures to allow tidal exchange with enclosed wetlands, except during storm events. NMFS is supportive of the dual purpose of the project to reduce wetland loss, including the potential operation of the HNC lock and floodgate to reduce saltwater intrusion, and enhance the distribution of freshwater. However, modeling results are needed to determine the necessary cross sectional area that should be provided by other exchange points such as Bayou Grand Caillou (BGC). Objectives to develop structure operation plans should include maximum drainage and fishery access, reduction in saltwater intrusion, and maintenance of safe navigation. As data become available, the HET and the project engineers should collaboratively develop operation plans that achieve these objectives.

HNC Lock

The HNC lock was authorized for engineering design but funding was not obligated for an evaluation of environmental impacts. As a result, the design of the lock, including the selection of a preferred alternative, has occurred well in advance of initiating and completing a system-wide hydrologic model. NMFS recommends emphasis be placed upon completing the system-wide model to allow a determination of environmental effects as a result of impacts to hydrology.

NMFS recommends the NOD evaluate a less environmentally damaging alternative of constructing the lock in the existing channel to avoid the need for constructing a bypass channel. Although the majority of the proposed bypass channel could be sited in existing disposal areas, the southern approach would be dredged through more than ten acres of saline marsh not previously impacted. With adequate design considerations for in-channel construction, it may be possible to avoid adverse wetland impacts and the associated mitigation cost.

BGC Floodgate and Bypass Channel

To allow for an evaluation of alternatives for the BGC floodgate, basic footprint design information should be provided to the HET. Alignments of rights-of-way, bypass channel, and disposal areas are needed as a basis for evaluating the availability of less damaging alternatives. NMFS recommends the NOD evaluate increasing the flapped cross-sectional area to improve distribution of freshwater flows during high Atchafalaya River stages. We understand that a preliminary preferred alternative (alternative three) would maintain HNC flow, but reduce BGC flow. The NOD has proposed a mitigative action to restore those flows by deepening BGC. NMFS recommends modeling results and information detailing the limits of the proposed dredging and disposal plan be provided to the HET for interagency review and be included in the DEIS.

Previously, a bypass channel was proposed to maintain navigation or flows during construction of the BGC floodgate south of the lock through Bayou Plat. If a bypass channel is constructed, wake induced erosion of adjacent marsh should be minimized by armoring the shorelines with rock. If rock armoring is planned, low-level sills (fish dips) should be incorporated in the armoring to maintain marine fishery access to the marsh. Our general recommendations for fish dips are: one dip, at least every 1,000 feet constructed 20 feet wide to the pre-project water depth or -2.0 feet NAVD88. Revised guidance on these features, including strategically locating dips at existing openings into the marsh, should be developed on a case-by-case basis through coordination with NMFS. The DEIS should include these features as integral components of the bypass channel alternative.

HNC Lock Road

As agreed upon at the last PDT meeting, NMFS recommends site specific drainage and fishery access features be discussed in the DEIS. Culverts should be installed under the existing parking lot to Bayou Plat and at the southern end to Bayou Plat near its intersection with levee reach G1. System-wide modeling should help identify the size of the culverts necessary for drainage. Additionally, material dredged from the Bayou Plat access channel should be used beneficially to create marsh elevations. The beneficial use disposal area should be designed such that the settled elevation is equal to adjacent healthy marsh and approved by the HET.

Levee Reach G1

NMFS recommends completion of the system-wide modeling to assess the drainage needs for the 450-acre area that would be enclosed by levee reach G1, Mayfield Road, Bayou Grand Caillou Road, and the HNC lock road.

Levee Reach F1

On March 24, 2005, the HET was provided a working draft figure of the lock complex and levee reaches. Alternative options exist for borrow areas that would minimize adverse impacts to non-previously impacted marsh. To minimize impacts to marsh and water bottoms, NMFS recommends that sediment dredged from the lock bypass channel be used to construct the F1 levee reach south of BGC instead of excavating an exterior borrow channel. We recommend the borrow area be relocated from the flood side marsh to the existing disposal area on the protected side north of BGC.

Sand Sources for Levee Reaches

NMFS urges the USACE initiate a regional sand management (RSM) plan demonstration project for coastal Louisiana. Identifying sufficient sediment sources of acceptable quality and quantity has been problematic for the various levee reaches under the Morganza to the Gulf project. Nearshore (e.g., Cat Island Pass) and offshore (e.g., Ship Shoal) sand sources are now being investigated as alternative borrow sources. Mining nearshore and offshore sand sources for levee construction could constitute potentially undesirable competition for finite sediment resources necessary for barrier island restoration proposed under the Louisiana Coastal Area Ecosystem Restoration Study (LCA) and the Coastal Wetlands Planning, Protection and Restoration Act

(CWPPRA). Using an RSM approach supports the USACE's "environmental operating principles" and incorporates principles of the watershed perspective as required to be applied to civil works programs by Policy Letter Guidance #61. Application of the RSM concept would not only help the USACE contribute to sustainability of sand resources but also provide programmatic integration of federal flood protection, operations dredging, and restoration programs.

We understand the funding of an RSM plan is beyond the scope of this lock complex project and encourage the USACE pursue partnering with LCA, Operations Division dredging of the HNC and other Louisiana channels, and/or other civil works projects to provide funding support for a RSM plan in Louisiana. Each civil works project in coastal Louisiana that proceeds without the benefit of comprehensive planning only increases the chances that there will be future conflicts over the finite sediment resources.

NMFS is pleased the NOD has conducted a preliminary borrow impact analysis of the Cat Island Pass borrow alternative. We request an opportunity to review that analysis to evaluate this alternative. Similar borrow impact and coastal processes modeling (e.g., STWAVE, GENESIS, SBEACH) would be necessary for other nearshore and offshore borrow sites to assess the impacts of changes in wave climate on such coastal processes as erosion of barrier islands or shorelines.

Overall, little is known about the benthic organisms and fisheries of shoals off Louisiana. NMFS understands the USACE is a cooperating agency on the EIS in preparation by the Minerals Management Service on Ship Shoal. The DEIS for the lock complex, associated structures, and sand sources should include and discuss the ongoing investigations evaluating the benthic and fishery support functions of Ship Shoal. Preliminary results of ongoing fishery investigations suggest more diverse and productive macroinfauna on the slopes of the shoal and that the shoal may be spawning habitat for blue crab. Means to avoid or minimize adverse impacts to those fishery resources may need to be considered as project alternatives. Less damaging alternatives could include avoiding dredging of high quality shoal area and dredging windows that do not overlap with peak use of the shoal by economically important fishery species.

Coordination with Restoration Programs

Two main avenues for ongoing coastal restoration planning and implementation in Louisiana include LCA and the CWPPRA. Two near-term projects under LCA and one under CWPPRA may be adversely impacted by project features. These restoration projects include the Multi-purpose Operation of the HNC Lock Complex, Conveyance of Atchafalaya River Water to North Terrebonne Marsh, and North Lake Boudreaux Freshwater Introduction. Additionally, Whiskey West Flank Restoration, Whiskey Backbarrier Restoration, and East Island Restoration are examples of the planned or constructed barrier island projects authorized under CWPPRA that could be adversely impacted by dredging nearshore or offshore sediments. The DEIS and evaluations leading to its development should include measures to avoid impacts to coastal restoration projects.

Induced Development Impacts

NMFS is concerned that wetlands that would be located on the protected side of the proposed levees would come under increased development pressure. Although development of these wetlands would be subject to the permitting requirements of Section 404 of the Clean Water Act, the presence of flood protection levees could encourage development of wetlands by biasing the rigor of the alternatives analysis under the 404 (b)(1) Guidelines. The DEIS should discuss the potential impacts of project construction on induced, secondary development of enclosed wetlands.

Monitoring

Monitoring of the project's direct and indirect impacts would be a necessary and integral component of authorization. The amount of project-induced adverse wetland impacts resulting from changes in hydrology is unknown. Thus, monitoring of hydrologically induced impacts is necessary to determine the adequacy of the proposed mitigation plan, as well as the need for additional mitigative actions. Monitoring of the mitigation areas also is necessary. Monitoring plans for mitigation areas should be tailored to the type, scale, and uncertainty of the mitigation. The recent monitoring plan developed through interagency coordination on Reach J1 should be used as a template for similar mitigation proposals. The details of the monitoring plan, including responsible parties for funding and implementing the plan, should be coordinated with the HET and included in the DEIS.

Mitigation

Once adverse environmental impacts have been avoided and minimized to the maximum extent practicable, mitigation for the remaining unavoidable impacts is of paramount importance to NMFS. Conservation of habitat through adequate compensatory mitigation is a critical consideration for this and the overall Morganza to the Gulf projects. Mitigation for environmental purposes should include mitigating direct impacts from dredging, filling, saltwater intrusion, and wake induced erosion; as well as secondary impacts caused by hydrologic alterations, including reduction in future freshwater flows and distribution. Mitigation has proven to be one of the more challenging issues with the overall Morganza to the Gulf project. NMFS' preferred method of compensatory mitigation is marsh creation of a sufficient acreage to ensure no net loss of wetlands and associated functions. Acceptable mitigation should be developed through coordination with NMFS and other members of the HET and fully discussed in the DEIS.

Mitigation options that should be considered include marsh creation on the flood side of the levees. This would provide onsite replacement of lost wetland functions and, secondarily, could provide some erosion protection benefits to the levees over the project life. Specific opportunities exist along the west side of Reach F1 between BGC and Bayou Plat and south of Reach G1. NMFS also recommends implementation of marsh creation mitigation in area C13 as previously identified in the PEIS. The size, elevations, and incorporation of fisheries friendly design provisions (e.g., gapping containment, pre-dredging tidal creeks) should be coordinated with NMFS and the HET and documented in the DEIS.

NMFS also is concerned that the cost for mitigating and monitoring project impacts would be a financial responsibility of the Terrebonne Levee and Conservation District (TLCD) rather than

the federal government. The ability to ensure adverse environmental impacts from flood protection features are fully offset would be dependent on the locally generated tax revenue that could be highly uncertain. We encourage reconsideration of this cost sharing to ensure dedication of federal funds for all monitoring activities and the mitigation of adverse environmental impacts.

Interagency Coordination

Preliminary coordination, through the PDT and the interagency HET, has been initiated on many of the project features to be addressed in this DEIS process. NMFS finds that the PDT process has developed into a productive coordination mechanism for the overall Morganza to the Gulf project. We are hopeful the team meetings can be re-initiated and managed in a manner to facilitate continued coordination with resource agencies. Specific impact assessments of various design alternatives should be conducted. This should include the evaluation of direct impacts based on the footprint of project features and secondary impacts such as alterations to hydrology (e.g., freshwater delivery and drainage). Field inspections may be necessary to determine, document, and compare impacts to wetland function and acreage. The timeline to draft and finalize the EIS should be of sufficient duration to allow for these investigations and subsequent analyses. As usual, NMFS would participate and assist in these efforts.

PEIS Commitments

Numerous commitments were made by the USACE to resolve resource agency concerns on the PEIS. These commitments were reflected in the Chief of Engineers Report and the PEIS for the Morganza to the Gulf project. It is important that the NOD renew those commitments as specific new projects and project features are developed. These commitments are vital to ensure that the least damaging project alternatives are selected, that the overall project will not result in a net loss of wetland acreage or function, and to ensure project completion in the shortest time possible. Following are some of the commitments made in Volume IV of the Final Feasibility Report for the Morganza to the Gulf project that are relevant to the lock complex and associated structures:

- The USACE will develop detailed operation plans for the lock, floodgates, and water control structures;
- The USACE will conduct additional modeling to adequately size water control structures to ensure drainage and restore pre-storm water levels within no more than two weeks;
- The USACE will develop feature specific mitigation commensurate with more accurately determined environmental impacts based on advanced designs, refine direct impacts, and re-evaluate mitigation measures;
- The USACE will investigate alternative borrow sources to minimize adverse environmental impacts;
- The USACE will amend the operations and management budget to involve broader monitoring to allow modifications to planned structures;
- The USACE will maintain future without project freshwater inflows from the Atchafalaya River to achieve coastal wetland conservation through improved distribution;

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- The USACE will re-evaluate the BGC floodgate to minimize adverse impacts to wetlands in that area;
- The USACE will coordinate with HET on individual components and their operation;
- The USACE will perform additional hydraulic analysis to evaluate maximum flow through structures and verify assumptions regarding wetland impacts; and,
- The USACE will use material dredged during construction beneficially to create marsh elevations.
- The USACE will include monitoring as an integral part of the selected plan and involve the HET in development of the monitoring

These comments are offered in accordance with the general guidance to avoid, minimize, and offset adverse impacts as set forth by the Council for Environmental Quality, Fish and Wildlife Coordination Act, and the Magnuson-Stevens Act. NMFS remains committed to working with the NOD, the TLCD, and other agencies and stakeholders to identify and address project-related concerns in an efficient and effective manner while avoiding and minimizing adverse impacts to aquatic resources of national importance. If you have questions regarding our comments, please contact Patrick Williams or Bren Haase of my staff at (225) 389-0508. Please coordinate these comments, as necessary, with other project and engineering staff of the NOD, as appropriate.

Sincerely,



for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

Enclosure

cc:
COE, NOD, Anderson
FWS, Lafayette
EPA, Dallas
NMFS, PR, Bernhart
LA DNR, CMD Consistency
LA DNR, CRD, Norman, Khalil
TLCD, Zeringue
LADOTD, Ardoin
F/SER46, Ruebsamen, Hartman
MMS, Drucker
LDWF, Finley
Files

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EFII Enclosure

Species	Life Stage	EFH
brown shrimp	Eggs/larvae	nearshore and offshore gulf waters (< 110 m, demersal)
	Postlarval/juveniles	marsh edge, SAV, tidal creeks, inner marsh
	Subadults	Mud bottoms, marsh edge
	Adults	Neritic gulf waters, silt muddy sand, and sandy substrates
white shrimp	Eggs/larvae	nearshore gulf waters < 40 m
	Postlarval/juveniles	marsh edge and ponds, SAV, inner marsh, oyster reefs
	Subadults	same as post larval/juvenile
	Adults	nearshore gulf waters to 30 m
red drum	Eggs	nearshore and offshore gulf waters
	Postlarval/juveniles	SAV, estuarine mud bottoms, marsh/water interface
	Subadults	Estuarine and marine mud and sand bottoms, oyster reefs, estuarine water column
	Adults	estuarine water column (Gulf shoreline to 50 m depth), shell substrate; estuarine and marine mud bottoms
Spanish mackerel	Larvae	< 50 m
	Juveniles and subadults	Gulf from shoreline to 75 m depth
king mackerel	Juveniles and adults	Gulf from shoreline to 200 m depth
bluefish	Juveniles, subadults and adults	Nurseries are inshore along estuaries, beaches, and inlets; older life stages common out to the continental shelf
cobia	Eggs, larvae	top meter of water column; marine/estuarine

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	Postlarval, juveniles, adults	Gulf, shore to 40 m water depth; larval and juveniles common in 3 – 9 m of water
bonnethead shark	Juveniles and adults	Inlets, estuaries, and gulf waters < 25 m
Atlantic sharpnose shark	Juveniles	Gulf waters less than 40 m between the Mississippi and Atchafalaya Rivers
little tunny	Postlarval, juveniles, adults	Occupy depths < 200 m in gulf, common near shoals

Table 1. EFH Requirements for managed species that occur in the study area. Shaded species and life stages are those that exclusively occur as common or more abundant in nearshore and offshore gulf waters and are likely to be primarily affected by offshore borrow site alternatives (< 15 m of water).

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Wilberks

State of Louisiana



KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 8, 2005

Mr. Robert J. Martinson, Acting Branch Chief
Environmental Planning and Compliance Branch
Planning, Programs, and Project Management Division
New Orleans District, U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Martinson:

The Louisiana Department of Natural Resources (LDNR) Office of Coastal Restoration and Management (OCRM) has received the October 16, 2005, Notice of Study Initiation (NOI) and Environmental Impact Statement (EIS) Scoping Meeting for the Mississippi River and Tributaries-Morganza, LA, to the Gulf of Mexico Project including the Houma Navigation Canal (HNC) Lock Complex and Associated Structures. The U.S Army Corps of Engineers (USACE), New Orleans District (MVN), proposes to conduct scoping and prepare an EIS to include identification, evaluation, and discussion of issues, resources, and impacts including alternatives to the tentatively selected plan previously identified in the 2002, Programmatic EIS (PEIS) for the overall Mississippi River and Tributaries, Morganza, Louisiana, to the Gulf of Mexico Hurricane Protection (MtoG) project. The State's OCRM offers 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.).

First and foremost, the State appreciates the opportunity to comment on the NOI for the MtoG HNC Lock Complex and commends the MVN on its coordination with the State and other Federal Resource Agencies through the MtoG Project Delivery Team (PDT) and the Habitat Evaluation Team (HET). The State recognizes the dire need for hurricane protection in coastal Louisiana to protect our citizens and their property, and we will continue to work with the MVN, Terrebonne Levee and Conservation District (TLCD), federal resource agencies, and stakeholders to insure their safety while trying to minimize adverse impacts to our coastal wetlands.

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The State has expressed its concerns throughout planning and development about MVN's proceeding with engineering and design on the HNC lock complex without the benefit of a system-wide hydraulic model. Without the benefit of a system-wide hydraulic model, it is impossible to fully evaluate the impact of the HNC Lock Complex on the hydrology of the project area. The modeling effort should be coordinated with the interagency PDT including the HET prior to selection of a preferred HNC Lock Complex alternative.

The proposed HNC Lock Complex project-area is primarily coastal wetlands including coastal marshes (fresh, intermediate, brackish, and saline), forested wetlands (bottomland hardwoods and swamps), and shallow open water. Hundreds of acres of additional marsh and tidal swamp could be isolated from the natural hydrologic regimes necessary to maintain a healthy ecosystem, depending on the manner in which the HNC lock is operated. Rapid wetland loss in Louisiana and the study area make this additional habitat degradation cause for substantial concern. Mitigation for the direct wetland impacts within the project boundaries associated with the construction of the HNC Lock Complex is a high priority for the State; however, the State is equally concerned with potential impacts on coastal wetland restoration opportunities, strategies, and projects in the Terrebonne Basin outside the project boundaries.

At the present time, the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) and the Louisiana Coastal Area Ecosystem Restoration Study (LCA) are the two main initiatives for coastal restoration planning and implementation in Louisiana. There are two near-term projects under LCA and one under CWPPRA that may be adversely impacted by features of the HNC Lock Complex. These projects include the Multi-purpose Operation of the HNC Lock Complex, Convey Atchafalaya River Water to North Terrebonne Marsh, and North Lake Boudreaux Freshwater Introduction. The HNC Lock Complex EIS and evaluations leading to its development should include measures to avoid impacts to these restoration projects.

Multi-purpose operation of an appropriately selected alternative of the HNC Lock Complex has the potential to maintain or improve distribution of freshwater into the Terrebonne marshes. Hydrology in the MtoG project area is influenced by freshwater flows from the Atchafalaya River through the Gulf Intracoastal Waterway. The HNC Lock Complex should be evaluated to ensure maintenance of existing and projected future flows from the Atchafalaya River to the project area wetlands. The State supports continued coordination by the MVN through the PDT and HET to investigate project impacts to increased future flows. The methods and data to quantify the flows for the alternatives that are considered should be provided to and coordinated with the HET. Features should then be designed, constructed, and operated to maintain or mitigate loss of those increased future flows, as well as allow for enhanced flows under the authorized secondary objective or dual purpose of the plan to reduce wetland loss for a variety of flow and storm events/conditions. This information could be used to determine realistic and acceptable probabilities of exceedance.

The above comments are offered to remain consistent with the goals of LCA and CWPPRA, with the commitments made by the Corps on the PEIS, in support of the

EIS Scoping Document
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Corps Environmental Operating Principles, and to address consistency guidelines of the Louisiana Coastal Resources Program. The State continues to be committed to working with the MVN, the TLCD, other federal agencies, and stakeholders to identify and address issues of concern related to this project in an efficient and effective manner while avoiding and minimizing adverse impacts to our coastal wetlands and mitigating for unavoidable losses.

Once again, the State appreciates the opportunity to provide scoping comments on the NOI for the MtoG HNC Lock Complex. If you questions regarding our comments, please contact Will Norman at (225) 342-9432 or charlesn@dnr.state.la.us.

Sincerely,



Gerald M. Duszynski
Acting Assistant Secretary

c.c. Col. Richard P. Wagenaar, USACE, New Orleans District
Mr. Dan Hitchings, USACE Mississippi Valley Division
Mr. Johnny B. Bradberry, LADOTD
Mr. Jerome Zeringue, TLCD
Mr. Pat Williams, NMFS
Mr. John Ettinger, EPA
Mr. Ronnie Paille, USFWS
Mr. Manuel Ruiz, LADWF
Mr. Will Norman, LADNR

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures



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

NOV 23 2005

Mr. Nathan Dayan (PM-C)
Environmental Planning and Compliance Branch
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Dayan:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA), Region 6 office, has reviewed your solicitation for comments for preparing a Draft Environmental Impact Statement (DEIS) for the proposed Houma Navigation Canal (HNC) lock complex and associated structures in Terrebonne Parish, Louisiana.

We have completed our review of the project description and would like to take this opportunity to submit basic recommendations on the scope of the DEIS you are preparing. Our comments, which are enclosed, are based upon the Council on Environmental Quality regulations 40 CFR (Parts 1500-1508) and our authority under Section 309 of the Clean Air Act.

We appreciate the opportunity to comment and look forward to continuing to work with the Corps on this important hurricane protection project. Please send our office five (5) copies of the Draft EIS at the same time it is sent to the Office of Federal Activities, (2251A), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20044. If you have any questions pertaining to NEPA, please contact Regional staff member Michael Jansky at (214) 665-7451 or e-mail him at jansky.michael@epa.gov. Should you have any questions or wish to discuss wetland issues, please contact John Ettinger at (214) 665-2295.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Rhonda Smith".

Rhonda M. Smith, Acting Chief
Office of Planning and
Coordination (6ENXP)

Enclosure

**SCOPING COMMENTS
FOR THE
US ARMY CORPS OF ENGINEERS
HOUMA NAVIGATION CANAL AND LOCK COMPLEX
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

COMMENTS:

EPA is fully committed to working with the Corps and other stakeholders to provide greater hurricane protection for the people and infrastructure of coastal Louisiana. Doing so will necessitate both improving the levee system and doing more to protect and restore coastal wetlands and barrier islands. Work to improve structural hurricane protection must not undercut efforts to protect and restore coastal wetlands. In designing projects such as the HNC lock and associated structures, it is critical that full consideration be given to avoiding impacts to existing wetlands and to ensuring that the proposed structures do not conflict with ongoing and future restoration projects. In short, the planning and design of hurricane protection structures must be integrated as much as possible with coastal restoration efforts.

With the Morganza to the Gulf hurricane protection project in general and the HNC lock complex in particular, the central issue with respect to coastal restoration efforts is the potential hydrologic effects due to design and operation of the lock and associated structures. In commenting on the programmatic EIS for the Morganza to the Gulf hurricane protection project, we warned of the potential for unintended adverse impacts to coastal wetlands and other aquatic resources due to unanticipated hydrologic changes such as restricted flow in or out of the leveed area. Since that time, we and other partner agencies have continued to raise this issue as part of the ongoing interagency coordination on this project. The key to addressing this issue is developing a system-wide hydraulic model and accurately predicting long-term hydrologic trends, particularly with respect to freshwater flows from the Atchafalaya River.

The HNC lock is a critical feature with respect to potential hydrologic impacts from the overall Morganza to the Gulf project. Depending on the design and operation of the lock, there is the potential for positive or negative impacts with respect to wetlands and coastal restoration efforts. For example, we understand that preliminary analysis has shown that under one design configuration, construction of the lock and associated structures could result in a substantial decrease in flows down Bayou Grand Caillou. Reducing flows down a distributary channel would be counter to coastal restoration efforts to restore distributary flows, such as the proposed river reintroduction into Bayou Lafourche. On the other hand, there is the potential to use the HNC lock to reduce saltwater intrusion and possibly improve freshwater distribution. Whether design and operation of the lock complex benefits or harms the coastal environment depends in large part on how well the potential hydrologic effects are understood. An accurate model is essential for such understanding.

Selecting a preferred alternative for the HNC lock complex without the benefit of a system-wide hydraulic model would be premature and could lead to unintended adverse impacts

to coastal wetlands and coastal restoration efforts. EPA strongly recommends that a preferred alternative for the HNC lock complex not be selected until adequate system-wide hydraulic modeling has been conducted. To that end, we recommend the Corps redouble its efforts to produce a system-wide model for this project, working closely with the interagency project delivery team. Moreover, we would recommend that members of the academic community review the model. The partnership between the Corps and various members of the academic community in the development and application of models for the Louisiana Coastal Area Ecosystem Restoration Plan provides ample evidence that such review can be done quickly and can help ensure the model is effective.

As noted above, wetland impacts should be avoided to the maximum extent practicable. Direct and indirect wetland impacts should be avoided and minimized by selecting levee alignments that have the least footprint in wetlands, minimizing the amount of enclosed wetlands, and sizing the lock and other structures to allow for sufficient flow, now and in the future, to maintain a productive wetland system. It is also critical to identify environmentally acceptable borrow sources. All unavoidable impacts to coastal wetlands should be fully offset through compensatory mitigation measures. EPA recommends that compensatory mitigation for marsh impacts be accomplished through marsh creation. No mitigation credit should be given for theoretical benefits to wetland areas enclosed within the levee system unless there is definitive, quantitative information to support such claims.

Looking at the Morganza to the Gulf project as a whole, there is clearly a massive need for levee building material and for sediments appropriate for the marsh creation needed for compensatory mitigation. Thus far, the identification of borrow sources for individual levee reaches and associated mitigation has been done in a piecemeal fashion. In the context of such project-by-project searches for borrow material, the least expensive alternative is typically to find borrow material on-site, possibly at the expense of wetlands. However, such project-by-project searches for borrow material do not provide an opportunity to examine a more programmatic solution, one that might cost more at first, but which could possibly facilitate construction of the entire levee project, while also being of use for implementing coastal restoration projects under the Coastal Wetlands Planning, Protection, and Restoration Act and the Louisiana Coastal Area Ecosystem Restoration Plan.

The Corps should assess the practicability of one or more large-scale, external sources of borrow material to be used for multiple purposes, possibly including levee construction, mitigation, and barrier island restoration. For example, might there be a programmatic advantage to using sediments from Ship Shoal for both levee construction and barrier island restoration? While building a sediment transport pipeline from the shoal to a stockpile location near the levee alignment would not be practicable for one individual levee segment, the concept could have merit when one considers that the Morganza to the Gulf project will require borrow material for 72 miles of levee and that further restoration of barrier islands is needed. Such an approach would have potential for minimizing wetland impacts, while ultimately facilitating and possibly accelerating levee construction and barrier island restoration. Depending on the qualities of the

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures

sediments at such a source, there might even be the possibility of using such a transmission system to create marsh for mitigation purposes.

The assessment of large-scale, multi-purpose sediment sources and transportation networks is a programmatic issue, which is beyond the normal scope of an EIS for a project such as the lock complex and associated features. However, there is clearly a need for more comprehensive and integrated approaches to Louisiana's coastal restoration and structural hurricane protection needs. Given the long-term coastal restoration and structural hurricane protection needs in the Terrebonne Basin, we would recommend the Corps consider including such an analysis in the EIS for the HNC lock complex.

Finally, it is unclear how the current Morganza to the Gulf hurricane protection project and its individual components relate to the Corps' study of category 5 hurricane protection. Would the Morganza to the Gulf project be a component of a larger category 5-levee system? If so, would the features of Morganza to the Gulf project need to be modified or upgraded to meet category 5 standards? Given these questions, the Corps' EIS for the HNC lock should at a minimum discuss the relationship between the overall Morganza to the Gulf project and the broader category 5 hurricane protection study. Certainly, the overall category 5 project will need to be reviewed in a programmatic EIS. However, as the Corps proceeds with individual components of the Morganza to the Gulf project, it should look for opportunities to ensure the smoothest and most expeditious NEPA process for any reasonably foreseeable future upgrades. Including a discussion of such potential project changes, even if programmatic in nature, in the EIS for the lock complex could help in this respect. At a minimum, it would help explain to the public the relationship, if any, between the current Morganza to the Gulf project and the category 5 hurricane protection study.

498 Woodland Dr. Zwolle, LA 71486
318 645 4001 Email govco@worldnet.att.net

.....

W. C. Oliver Jr Consultant Geologist

December 8, 2005

Mr. Nathan Dayan
U. S. Army Corps of Engineers (PM-RS)
P. O. Box 60627
New Orleans, Louisiana 70160-0267

Dear Mr. Dayan:

On November 16, 2005 a meeting was held in Houma, Louisiana concerning the Environmental Impact Statement (EIS) of the construction of the Houma Navigation Canal (HNC) Locks, the Associated Structures in Terrebonne Parish in the Vicinity of Dulac, Louisiana and the Levee Reach associated with this construction. In this area of construction, the Harry Bourg Corporation is one of the largest land owners.

In your meeting on the portion, Need for Action, stated the purpose of the proposed action is to reduce flood damage from storms and reduce coastal wetlands loss and preservation of the fragile ecosystem. Also, in the meeting there was a portion, Alternatives, which requested alternatives, recommended on the lock complex and levee alignments.

The Harry Bourg Corporation is very concerned with the wetland loss in South Louisiana and the Dulac-Delarge Area in particular.

In the Morganza Report dated fall 2003 there was a map showing the Locks in the HNC located below the town of Dulac. Proceeding west, the map indicates the levee system would proceed north along the HNC to the Falgoud Canal then proceeding west to the town of Delarge. The Harry Bourg Corporation has some problems with the location of the levee system west of the proposed HNC locks.

In the last couple of years, the Harry Bourg Corporation has done extensive studies of the surface and subsurface geology of this area. This area consists of two major oil and gas producing fields, Bayou Rambio and Delarge Fields. With the oil and gas wells drilled in the area, we have had a vast amount of subsurface geological information to conduct this study. The final conclusion of the study indicates an area north of the Falgoud Canal and approximately six miles south of the Falgoud Canal has had a large amount of subsidence. This subsidence has been caused by fault activation due to the oil, gas and water production from the above fields. This fault activation has occurred in other area in South East Louisiana and has been written in expert papers (Golden Meadow Field)

With these data indications, recent active faults would cause disastrous damage to any levee system located in the fault zone. Due to these situations, the Harry Bourg Corporation would recommend that the levee system would be constructed due west of the HNC proceeding to the Bayou Delarge area then north as your proposal. This recommended west route would by past any know zone of active faulting.

.....

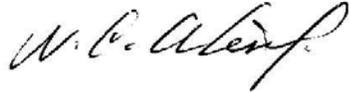
EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures

December 8, 2005

Page 2

I have enclosed a map showing the route of the levee as proposed by the Harry Bourg Corporation. If you have any questions about this proposal, please contact me at the above address.

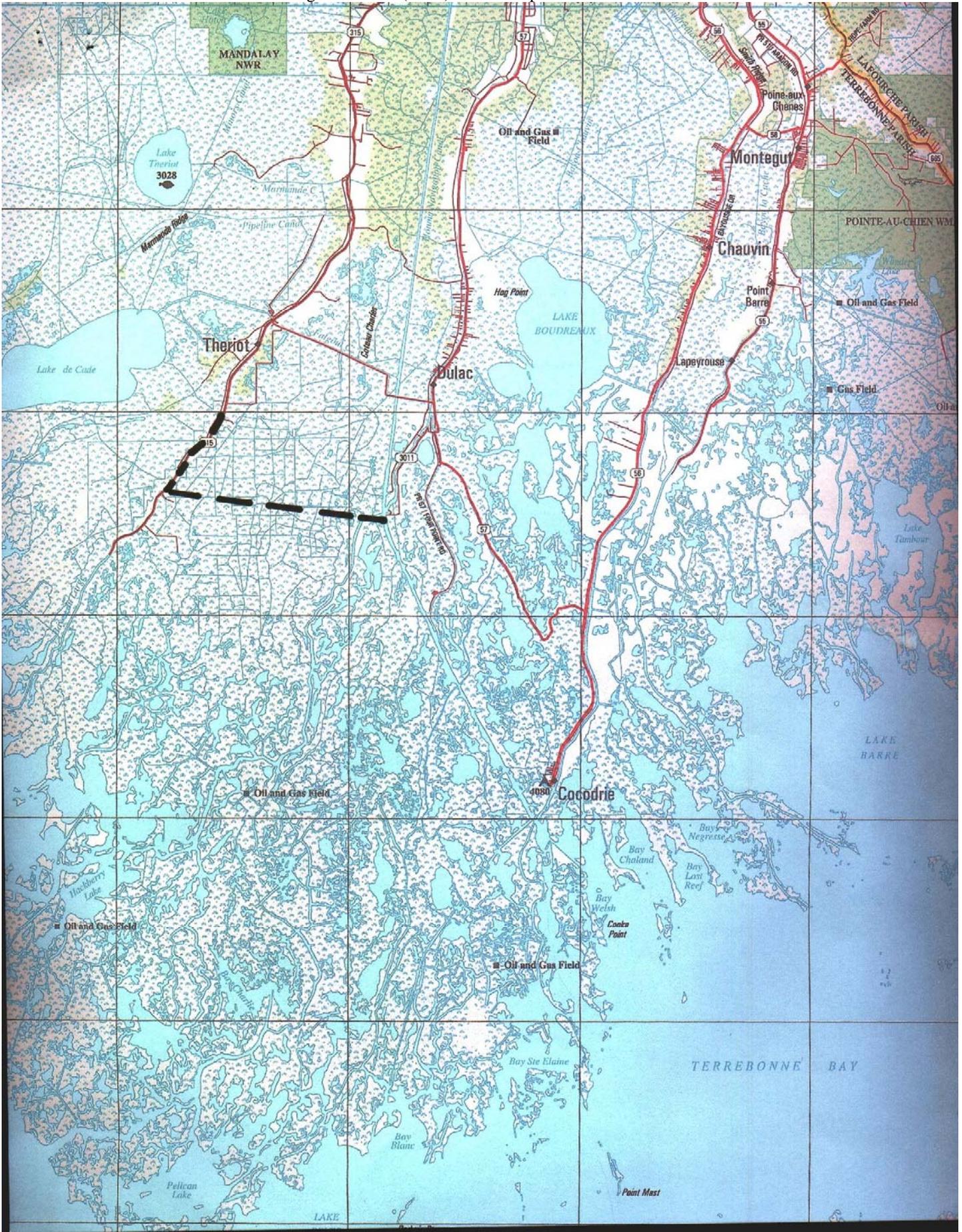
Sincerely,



W. C. Oliver Jr.
Consultant Geologist, Harry Bourg Corporation

cc. Board of Directors, Harry Bourg Corporation

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures



EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures



State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

DEPARTMENT OF WILDLIFE AND FISHERIES

DWIGHT LANDRENEAU
SECRETARY

December 9, 2005

Mr. Nathan Dayan
U.S. Army Corps of Engineers (PM-RS)
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Dayan,

The Department has reviewed the Notice of Intent (NOI) to prepare a Draft Environmental Impact Statement (DEIS) for the Construction of the following features of the Mississippi River and Tributaries - Morganza, La. to the Gulf of Mexico Project (MtoG): Houma Navigation Canal (HNC) Lock Complex and Associated Structures, in Terrebonne Parish in the Vicinity of Dulac, La. to include Levee Reach G1, HNC Lock Access Road, HNC Closure dam, HNC Lock and Floodgate Complex, Levee Reach F1, Bayou Grand Caillou (BGC) Structure, and the Sand Sources for these Levee Reaches. The primary purpose of the Lock Complex and associated structures is to reduce flood damages in all the areas predicted to be impacted by storms, reduce coastal wetlands loss, and protect the fragile ecosystem from tidal surges resulting from tropical storms and hurricanes. In addition, the Lock Complex and associated structures would be operated to reduce salinity intrusion and enhance freshwater distribution.

The Louisiana Department of Wildlife and Fisheries (LDWF) is the state agency responsible for management of the state's renewable natural resources including all wildlife and all aquatic life. The Department's mission is to manage, conserve, and promote wise utilization of Louisiana's renewable fish and wildlife resources and their supporting habitats through replenishment, protection, enhancement, research, development, and education for the social and economic benefit of current and future generations; to provide opportunities for knowledge of and use and enjoyment of these resources; and to promote a safe and healthy environment for the users of the resources.

The Department understands the importance of protecting the citizens of the state during severe storms (hurricanes, floods, etc.). Impacts from protection systems in the past have caused loss of wetlands and loss of access by estuarine dependent species that rely on these areas for some portion of their lifecycle. These changes have the potential to reduce populations of recreational and commercial species in the system. The five-year average annual commercial dockside landings value for Terrebonne Parish (that will be impacted by the Lock Complex and associated structures) is \$9,498,621. This number reflects the dockside value of seafood landed at docks in the parish. It does not include additional economic impacts from fisheries nor does it include the

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Mr. Dayan
December 9, 2005
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economic value of recreational fisheries. The Department would like to see the following issues included in the DEIS.

The DEIS needs to address social and economic impacts, positive and negative, to coastal communities. Changes to fish and wildlife resources will cause displacement and stress for communities with economies dependent upon these resources. The primary purpose of the Lock Complex and associated structures is to reduce flood damages in all the areas predicted to be impacted by storms, reduce coastal wetlands loss, and protect the fragile ecosystem from tidal surges resulting from tropical storms and hurricanes. Changes in coastal morphology due to the Lock Complex and associated structures operations or designs may exacerbate flooding and infrastructure problems. The DEIS should identify these impacts, and the means required to alleviate any impacts.

The Department is pleased that the DEIS will evaluate the Lock Complex and associated structures cumulatively and not as individual projects. Future designs and plans should be developed and evaluated in conjunction with planned and existing coastal restoration projects within Terrebonne Basin. All structures, borrow locations, disposal areas, mitigation areas, as well as individual specific features and maps need to be included in the DEIS.

The Corps must complete the hydrologic model and the results need to be incorporated into the DEIS before further engineering and design efforts continue. The Department continues to be concerned with the Corps' hydrologic model development lagging behind while engineering and design efforts continue for new reaches of the Morganza to the Gulf Hurricane Protection Levee. Lack of a functioning hydrologic model not only limits the ability to adequately determine if all direct and indirect impacts have been avoided, minimized, or mitigated as a result of the project and project features but also if the Lock and associated structures are optimally designed. Recent studies have indicated that changes in the hydrology of the Atchafalaya River system will result as the delta continues to build, sending increased future freshwater flows through the GIWW. Those increases could have beneficial or detrimental impacts and should be evaluated and included in the model.

Impacts to fish and wildlife resources that may result during construction and/or sequential lifts of the Lock and/or associated structures must be avoided, minimized or mitigated. The DEIS needs to include a mitigation plan that will offset any unavoidable impacts to fish and wildlife resources and should be designed through interagency coordination and the habitat evaluation team (HET).

The proposed Bayou Grand Caillou (BGC) structure must be designed to maintain adequate flows down BGC. During one of the project development team (PDT) meetings the Corps mentioned the possibility of dredging BGC to improve flows down stream of the structure. Again, the Department is concerned with the potential impacts that may result from dredging BGC without knowing results of the hydrologic model. Dredging the BGC may inadvertently accelerate marsh erosion by preventing the natural distribution of flows including the predicted increased future flows from the Atchafalaya River through the GIWW. Dredging of BGC may potentially impact the salinity regime and turbidity in the Department managed Sister Lake Oyster Seed Reservation. Therefore, the DEIS should include measures to preserve current flows and to manage any future flows that may benefit the marsh ecosystem and all forms of fish and wildlife resources.

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Mr. Dayan
December 9, 2005
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The final Programmatic EIS for the Morganza to the Gulf project states that the exact operation schedule of the Lock remains to be determined, however, it was assumed the Lock would be operated three months out of the year and opened the remainder of the year. Knowledge of the level of movement, and seasonal presence of all estuarine dependant fishes and shellfishes, can be used in making management decisions regarding timing of Lock and Bayou Grand Caillou (BGC) structure opening and closing. Opening the Lock and BGC structure at the times of greatest movement should allow adequate movement of organisms while keeping salinity to a minimum. Table 1 (attached) depicts the critical movement periods for larval and juvenile life stages of selected species. Because different species life stages use the marsh at different seasons and the important species are present at all times of the year, the lock should be left open as much as possible during the proposed three months of operation. A proper operational approach would control salinity intrusion and let estuarine-dependent organisms pass at critical times.

A monitoring plan needs to be part of the project plans and included in the DEIS to determine effects that may occur due to changes in hydrology or mitigation actions taken. At minimum the plan should include water quality, and vegetative and fisheries composition. Stations should be located above and below the proposed Lock Complex and associated structures with additional stations in the interior marsh and tributaries. The Final Feasibility Report for Morganza to the Gulf stated that at minimum the monitoring plan should include the following sampling schedule: salinity (monthly), vegetation types (biannual), and fisheries (quarterly) throughout the project area before, during, and the first 5 years after construction. Monitoring requirements may not be as intense after the first 5 years. Recently through the interagency coordination on Reach J-1, a monitoring plan was developed that could be used as a model for the mitigated areas. Any plans developed should be coordinated with the HET.

The Department recently submitted comments concerning the preliminary designs of the access road and reach G1 during the July 28, 2005 PDT meeting and through the Corps' Dr. Checks system. The following comments were agreed to at the PDT meeting by the Corps and should be addressed in the DEIS including those submitted through Dr. Checks. The Department asked that culverts be installed at the north and south ends of the access road to insure adequate drainage to the area and to allow ingress and egress of all estuarine dependant fishes and shellfishes to the area. The Corps agreed that a hydrologic analysis is needed to determine the appropriate sized structures.

The Department is concerned with the large amount of material that will be required to construct the Lock and associated structures. Based on other reaches of the Morganza to the Gulf project, lack of quantity and quality material seems to be a reoccurring problem. To minimize impacts to the habitat, the DEIS should look at using material hauled in from off-site internal borrow locations and avoid impacts associated with the adjacent borrow canals.

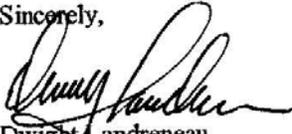
The Department is pleased with the continued coordination between the Corps and HET members. As new and/or modifications to engineering designs and plans of the project and project features continue, efforts to avoid, minimize or mitigate any adverse environmental impacts needs to continue through interagency coordination and the HET.

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Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Mr. Dayan
December 9, 2005
Page 4 of 4

The Department appreciates the opportunity to review and comment on the NOI for the HNC Lock and associated structures. If you have any additional questions about our comments please contact Manuel Ruiz at 225-765-2373 or mruiz@wlf.louisiana.gov.

Sincerely,



Dwight Landreneau
Secretary

Mjr

cc:

Fred Dunham - LDWF
Venise Ortego - LDWF
NOAA
USFWS
EPA
LDNR - CRD
LDNR - CMD

Attachment



P.O. BOX 6097
HOUMA, LOUISIANA 70361
(985) 868-5050



P.O. BOX 2768
HOUMA, LOUISIANA 70361
(985) 868-3000

TERREBONNE PARISH
CONSOLIDATED GOVERNMENT

*Office of Coastal Restoration
and Preservation*

December 12, 2005

Mr. Nathan Dayan (PM-C)
U.S. Army Corps of Engineers
Environmental Planning and Compliance Branch
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Dayan:

Enclosed you will find a copy of a resolution passed by the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee at its regular monthly meeting on December 5, 2005. The resolution specifically addresses the committee's support of the Lock Complex on the Houma Navigation Canal.

You may recall, at a public hearing recently held in Houma, Louisiana, Terrebonne Parish President Don Schwab also provided comments in support of the Lock Complex.

The Coastal Zone Management and Restoration Advisory Committee represents a broad range of citizens in Terrebonne Parish, and is very active and engaged in the issues and activities that affect our coastal areas. We appreciate the opportunity to provide comment on this significant hurricane protection project.

Please do not hesitate to contact me should you have any questions or require additional information.

Sincerely,

Leslie R. Suazo, Director
Coastal Restoration and Preservation

Irs

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures

COASTAL ZONE MANAGEMENT & RESTORATION ADVISORY COMMITTEE

December 5, 2005

OFFERED BY: Logan Babin
SECOND BY: Carey "Buddy Hebert"

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS the residents of Terrebonne Parish are in urgent need of Comprehensive Hurricane Protection assistance; and

WHEREAS the proposed lock complex on the Houma Navigation Canal is an integral part of the Morganza to the Gulf Hurricane Protection System for Terrebonne Parish and;

WHEREAS the Environmental benefits of the Lock Complex include management of salt water intrusion and possible use as a freshwater diversion structure as indicated in the Coast 2050 Ecosystem Restoration Report, the Louisiana Coastal Area Ecosystem Study Report (LCA) and by the Morganza to the Gulf Habitat Evaluation Team; and

WHEREAS the Lock Complex on the Houma Navigation Canal would have positive systemic affects in Terrebonne and Lafourche parishes;

THEREFORE BE IT RESOLVED that the Coastal Zone Management and Restoration Advisory Committee does hereby urge and request the following action steps from the U.S. Army Corps of Engineers:

- 1) Expedite the completion of the Environmental Impact Study;
- 2) Expedite the completion of the Engineering and Design of the Lock Complex;
- 3) Given the significant environmental opportunities of the project that minimize its adverse impacts, that consideration be given to the Lock Complex as a self-mitigating project, and
- 4) Upgrade the design and construction of the Lock Complex to Category 5 Hurricane Protection standards.

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures

BE IT FURTHER RESOLVED that the Coastal Zone Management and Restoration Advisory Committee does recommend and request that the Terrebonne Parish Consolidated Government work with the State, Federal and Local Leadership to secure authorization of and funding for the Lock Complex on the Houma Navigation Canal.

YEAS: 7

NAYS: 0

The Chairman declared the motion adopted.

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures



6133 Hwy. 311
Houma, LA 70360

Phone: (985) 876-5600
Fax: (985) 876-5611

www.houmachamber.com

December 15, 2005

Mr. Nathan Dayan
PM-R
New Orleans District
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Re: Public Comment Related to the HNC Lock

Dear Mr. Dayan:

On behalf of the Houma-Terrebonne Chamber of Commerce (chamber) I am writing to inform you that my organization is in full support of the proposed lock on the Houma Navigational Canal. It is the belief of the members of the chamber that the lock will offer much needed protection from storm surge and hurricanes. After living through the surge effects on our parish caused by Hurricane Rita, a storm that made landfall 200+ miles to the west of Terrebonne Parish, it is apparent that a lock complex on the HNC would have slowed the storm surge in many parts of our parish.

The lock will provide many other benefits, such as management of salt water intrusion during periods of low precipitation, management of freshwater distribution from the Atchafalaya through the Gulf Intracoastal Waterway during high stages, increased drinking water benefits for our area, as well as providing systemic, long term, positive environmental benefits to both Terrebonne and Lafourche parishes.

I am also enclosing a copy of a resolution by the chamber prepared earlier this year in support of the HNC lock.

This project is vital to the Houma-Terrebonne community. All efforts to accelerate the process and building of this project must be taken. The livelihood of our citizens and our community depends on this vital part of the Morganza project. Let's get it built.

Sincerely,

A handwritten signature in cursive script that reads "Alexis A. Duval".

Alexis A. Duval
2005 Chairwoman
Houma-Terrebonne Chamber of Commerce

Enclosure

EIS Scoping Document
Houma Navigation Canal (HNC) Lock Complex and Associated Structures



6133 Hwy. 311
Houma, LA 70360

Phone: (985)876-5600
Fax: (985)876-5611

www.houmachamber.com

RESOLUTION

**SUPPORTING THE FUNDING FOR THE HNC LOCK FOR
THE MORGANZA TO THE GULF HURRICANE PROTECTION PROJECT**

WHEREAS, the Morganza to the Gulf Hurricane Protection Project will provide hurricane protection for the residents, businesses and property owners of Terrebonne and Lafourche Parishes; and

WHEREAS the proposed lock on the Houma Navigation Canal is an integral part of the Morganza to the Gulf Hurricane Protection System for Terrebonne Parish and;

WHEREAS the Environmental benefits of the Lock include management of salt water intrusion and possible use as a freshwater diversion structure as indicated in the Coast 2050 Ecosystem Restoration Report, the Louisiana Coastal Area Ecosystem Study Report (LCA) and by the Morganza to the Gulf Habitat Evaluation Team; and

WHEREAS the lock on the Houma Navigation Canal would have positive systemic affects in Terrebonne and Lafourche parishes; and

WHEREAS the Terrebonne Levee and Conservation District stands ready and willing to provide a cost share funding for the construction of the HNC Lock, independent of state and local Coastal Impact Assistance funding;

THEREFORE BE IT RESOLVED that the Houma-Terrebonne Chamber of Commerce does recommend that the Coastal Impact Assistance monies allocated to the Terrebonne Parish Consolidated Government be used to assist in the construction of the Lock on the Houma Navigation Canal, and

BE IT FURTHER RESOLVED, that the Houma-Terrebonne Chamber of Commerce strongly urges and requests that the State of Louisiana dedicate \$100 Million of the recently provided Coastal Impact Assistance monies to the construction of the HNC Lock Project.

I, **Kandy Theriot**, Secretary of the Houma-Terrebonne Chamber of Commerce, do hereby certify that the foregoing is a true and correct copy of the **RESOLUTION** adopted by the Houma-Terrebonne Chamber of Commerce Board of Directors on **11th** day of **October, 2005**, at which meeting a quorum was present.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL OF OFFICE THIS 11th day of October, 2005

Kandy Theriot

**KANDY THERIOT
PRESIDENT/CEO/SECRETARY**

TO: MR. CARL ANDERSON (PM-C) AND MR. NATHAN DAYAN (PM-RS), USACE NEW ORLEANS.

FROM: MIKE + KAGE LEBLANC, LANDOWNER'S / MANAGERS OF \pm 2000 ACRES ALONG BOTH SIDES OF H.N.C. LOCATED NORTH OF PROPOSED LOCK SYSTEM AND M. TO G. LEVEE SYSTEM.

SUBJECT: COMMENTS AND CONCERNS OVER H.N.C.'S PROPOSED LOCK SYSTEM AND ASSOCIATED M. TO G. LEVEE SYSTEM.

DECEMBER 15, 2005

DEAR CARL AND NATHAN,

THE FOLLOWING ARE SOME COMMENTS AND CONCERNS WHICH WILL NEED TO BE ADDRESSED FROM LANDOWNER'S PERSPECTIVE.

1. ANY INCREASE IN WATER LEVELS DURING THE GROWING SEASON (APPROXIMATELY APRIL-NOVEMBER) DUE TO MANIPULATION OF THE PROPOSED LOCK SYSTEM, WILL HAVE A GREAT DETRIMENTAL EFFECT ON FORESTS AND PRAIRIES LOCATED NORTH OF THE PROPOSED LOCK SYSTEM AND M. TO G. LEVEE.

2. ANY DECREASE IN WATER LEVELS DURING THE GROWING SEASON (APPROXIMATELY APRIL-NOVEMBER) DUE TO MANIPULATION OF THE PROPOSED LOCK SYSTEM, WILL HAVE A GREAT BENEFICIAL EFFECT ON FORESTS AND PRAIRIES LOCATED NORTH OF THE PROPOSED LOCK SYSTEM AND M. TO G. LEVEE.

DECEMBER 15, 2005

PAGE 2 OF 3

3. Any INCREASE in water levels during the winter months (approximately December - March) due to manipulation of the proposed lock system, will have a great BENEFICIAL effect on forests, prairie's, and wild life located north of the proposed lock system and M. to G. levee; due to increased flushing, retention, and transport of fresh water, nutrients, minerals and sediments through the area.

4. What are the plans to protect area's to the north of the proposed lock system and M. to G. levee from adverse conditions?

5. Any material excavated or dredged by M.V.N. should be used to form a hydrological barrier along the H.N.C. to protect adjacent properties from ADVERSE flooding and water conditions.

6. It is officially recorded in R.O.W. agreements, that landowner's along the H.N.C., did retain perpetual ownership rights to water bottoms, spoil, spoil disposal sites and their future uses and development etc. and that these rights will be respected during, and

(CONTINUED)
2

DECEMBER 15, 2005

PAGE 3 OF 3

6. - AFTER CONSTRUCTION OF THE M. to. G.
LEVEE, H.N.C. LOCK SYSTEM, AND
ANY FUTURE DEEPENING OR IMPROVEMENT
OF THE H.N.C. •

SINCERELY,
Mike LeBlanc
Kaye LeBlanc

MIKE + KAYE LEBLANC
5320 SHRIMPEN'S ROW
HOUMA, LA 70363
(985) 563-7020 HOME
(985) 563-7020 FAX

Public voices support for lock

By ROBERT R. JONES III
Tri-Parish Times

In an attempt to afford Terrebonne Parish adequate hurricane protection, the U.S. Army Corps of Engineers is planning one of the largest flood locks of its kind in the U.S., and the Corps heard public comments last week on the project. Terrebonne residents, government officials and business voice support but questioned the Corps commitment to flood protection.

The lock is part of the Morganza to the Gulf project, which would include 72-miles of earthen levee, ten 56-foot sector gate structures, three 125-foot floodgates, 12 water control structures and the lock complex at the Houma Navigation Canal (HNC) - measuring 110-feet by 800-feet, along with an adjoining floodgate measuring 200 feet and a dam closure.

Some residents of southern Terrebonne Parish who questioned why the project is taking so long and whether it would ever become a reality tempered the mood of last week's public hearing - required by federal law.

The \$100 million lock is slated for construction along the Houma Navigation Canal south of Dulac

nary design stages, but the Corps is soliciting feedback as part of the environmental impact process, explained Nathan S. Dayan, fishery biologist for the Corps.

"We are out to get input from the public and let them know we are working on the project," he said. "We want them to be part of the process because if the public is not involved, you do not get a good project. We are here tonight to hear how the public feels about the basic proposal."

Komnie Paille, of the U.S. Wildlife and Fisheries Service, said his office supports the urgently needed project.

"The (southern) communities have been incredibly vulnerable over the years, and without a doubt, hurricane protection is urgently needed," he said. "The project will also help divert critically needed fresh water from the Atchafalaya to coastal marshes. Otherwise, storm surges will increase as marshes are unable to dampen the effects before they get to levees, reducing their effectiveness in the future."

Ed Watson, director of the Terrebonne Port Commission, agreed with Paille's assessment of the project benefits and said the environmental study needed to be completed as soon as possi-

"We are out to get input from the public and let them know we are working on the project."

— NATHAN S. DAYAN
fishery biologist for the Corps.

near Bayou Platte. The location was chosen to be in line with the future levee, to allow protection for Dulac and because of its economic advantages.

According to the Corps, the structure will reduce hurricane and flood damages in an environmentally sustainable manner - protecting over 120,000 people and 1,700 square miles of salt and fresh water marshes and developed property. It will also prevent salt water intrusion into the Intracoastal Waterway - Terrebonne Parish's main source of drinking water.

The project is still in the prelimi-



another meeting?" he asked. "What do we ever get from the Corps? In my opinion, as long as the Corps is in charge, we will never have anything."

Voisin felt like nobody was listening to the people of Terrebonne Parish.

"It's talk, talk, talk, but what do we get? Nothing," he added, before suggesting South Louisiana hires experts from the Netherlands to design and build the lock and levee system.

Terrebonne Parish Councilman Clayton Voisin could not be present at the meeting, but sent a written statement stressing the

urgency of the project to begin for residents of his district, which includes Dulac.

"This lock will be placed in my district, which was severely affected by hurricanes Katrina and Rita as well as tropical storms Isadore and Bill," he wrote. "After their devastating affects on our community, we should move to build the structure as soon as possible because the community will die without adequate hurricane protection."

Robert R. Jones III can be reached at (985) 876-3008 or robert@tri-parishtimes.com.

EIS Scoping Document
 Houma Navigation Canal (HNC) Lock Complex and Associated Structures

Table 1: Consolidated comments and location in DEIS that they will be discussed.

Location in EIS:
PN – Purpose and Needs **Alt** – Alternatives **AE** – Affected Environment **EC** – Environmental Consequences
CC – Consultation and Coordination **M**- Mitigation **CI** – Cumulative impact

Location in EIS							Comments
PN	Alt	AE	EC	CC	M	CI	
X	X						Safe harbor – Floodgate closed at 6 inches over
	X		X				Alternate channel through Loch of Felix no floodgate at BGC
		X					Lot of commerce on BGC deeper then Channel
	X						Larger Lock 210 feet by 1,010 feet
X	X	X				X	Wetland loss
X							Hurricane Protection needed
	X	X	X			X	Fresh water flow and sediment from Atchafalaya
		X	X				Marsh nursery for fish and wildlife and economic value
		X	X			X	Marsh surge reduction
	X	X	X		X		Environmental benefits of salinity control make project self mitigating
X		X	X			X	Prevent saltwater intrusion on marsh
X	X					X	Lock complex integral part of MtoG
				X		X	Fits with Coast 2050, and LCA
X	X						Timely construction
X						X	Impacts of Hurricanes Katrina and Rita on area
X		X				X	30 mile shift what damage would have been caused by Katrina and Rita
X	X					X	Flood control
							Drinking water benefits
X						X	Impacted by Hurricanes Lili and Rita and tropical storms Bill and Isidore
	X	X		X			Active Fault in area.
	X						Alternate alignment lower down
	X						Scrap project and allow locals to do now.
	X						Use barge gates to stop storm surge
	X	X	X	X		X	Flood gates and FW diversion expensive for non proven protection
						X	Corps fault for damage in New Orleans
						X	HNC will be new industrial canal that will cause more flooding
	X		X				Barrier from bayou Lafourche through Isle Jean Charles to Cocodrie. Use any material available (rocks, ships, barges, etc.) Floodwall in bayou Dulac, elevate LA 57. Barge set in canal at Dulac Pontoon bridge, elevate existing force drainage system. With out Corps involvement
X						X	Get project on the ground before we have to retreat.
X		X	X			X	HNC lock is critical to economies of the region. Must be size to accommodate the industry – Floodgate 200 feet wide w/ 25-foot wing walls.
X			X				No interstate evacuation route. Need Hurricane protection.
X			X				Lock complex top priority for Parish.
X			X				Protect environment and people together.

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Location in EIS							Comments
PN	Alt	AE	EC	CC	M	CI	
		X	X			X	Over 600,000 barrels of crude oil is transported through Terrebonne Parish. Six of the top ten taxpayers in Terrebonne Parish are oil and gas companies. The fundamentals of the economy in the parish, state, and nation. National revenue that is generated by the oil and gas that comes through south Louisiana is 5 to 7 billion dollars.
	X	X	X				Move lock north around Dularge at Pontoon Bridge. Put a lock in Bayou Grand Caillou.
		X	X				Present lock location protects half a million gallons of diesel, 2,000 jobs, and millions of dollars of business.
X	X						Hire Netherlands to rebuild our marsh and coastline
X						X	Getting nothing from the Corps. No one hears us.
	X		X				Lock need to be 300 feet by quarter of mile.
	X		X				Two locks one for large structures one for normal traffic.
		X	X			X	Salt water ruins water table
	X		X				Sinking barge type system.
	X						Lock with floodgate next to as planned is adequate.
	X		X			X	Multi-purpose operation of HNC lock complex to improve seasonal distribution of Atchafalaya River fresh water. HET involvement in operation Plan.
		X	X				Flows of FW at Falgout canal, Bayou Dulac, Bayou Grand Caillou and GIWW.
	X	X	X		X	X	Designed to increase beneficial FW flows
				X			Coordinate with LCA on convey of Atchafalaya River water to Northern Terrebonne Marsh project
				X			Coordinate with CWPPRA on North Lake Boudreaux Basing FW introduction project.
				X			HNC Lock complex should be consistent with long-term management and restoration strategies in the 1993 Louisiana Coastal Wetlands Restoration Plan, Coast 250 Plan and the keystone strategies for the LCA critical near-term Plan. Required by Section 303(d)(1) of CWPPRA.
		X	X	X		X	Threatened and Endangered Species. Louisiana black bear, Wet Indian manatee, bald eagle, brown pelican, piping plover, pallid sturgeon, and 5 sea turtle species.
		X	X			X	Hydrological isolated wetlands
		X	X	X		X	EFH – white and brown shrimp, red drum, Spanish mackerel, bluefish, cobia, bonnethead shark, sharpnose shark, little tunny. Specific categories of EFH estuarine wetlands, water column, submerged aquatic vegetation, mud, sand and shell substrate inshore and Marine water column, non-vegetated bottoms, and continental shelf features offshore.
			X	X			Commercial fishery landing \$42.3 million dockside from Port of Dulac-Chauvin,

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PN	Alt	AE	EC	CC	M	CI	
		X	X			X	System wide and area-specific Hydraulics model to determine timeliness of drainage, depth, duration and spatial extent of flooding, water salinity in channel and interior wetlands.
		X	X				Quantify existing and future flows in project area with and without project.
	X	X	X			X	Locate lock in existing channel to avoid construction of bypass channel
	X	X	X				Increase cross-sectional area of BGC floodgate.
	X	X	X		X	X	Rock armoring should include fish dips ~every 1,000 feet or at existing marsh openings. That are 20 feet wide to pre-project water dept or -2.0 feet NAVD88
	X	X	X		X		HNC lock access road. Site specific drainage and fishery access. Culverts under existing parking lot.
	X				X		Dredged material should be used beneficially to create marsh. Settled elevation equal to adjacent healthy marsh.
	X	X	X		X	X	Sediment dredged from lock bypass channel be used to construct the F1 levee reach instead of exterior borrow channel.
	X	X	X		X	X	Borrow relocated from flood side to existing disposal area on protected side of BGC for Reach F1
X	X	X	X	X	X	X	USACE needs to initiate a regional sand management plan for coastal Louisiana.
		X	X		X	X	Induced development on enclosed wetlands.
	X				X	X	Monitoring projects direct and indirect impacts.
	X	X	X	X	X		Mitigation should be coordinated with HET and fully discussed in DEIS
	X	X	X		X	X	Mitigation plan should consider including marsh creation on the floodside of the levees and could provide some erosion protection to the levee.
	X	X	X		X		Creation of mitigation in area C13 should be done as previously identified in PEIS.
X	X			X	X		Reconsider cost sharing to ensure dedication of Federal funds for all monitoring activities and the mitigation of adverse impacts.
	X			X		X	Commitments made in PEIS by USACE should be honored.
X	X					X	Corps Environmental Operating Principles.
X	X	X	X	X	X	X	Improve structural hurricane protection must not undercut efforts to protect and restore coastal wetlands.
	X	X	X		X		Selecting a preferred alternative for the HNC lock complex without the benefits of a system-wide model would be premature and could lead to unintended adverse impacts.
		X	X	X			Academic review of system-wide model
	X	X	X		X	X	Direct and indirect wetland impacts should be avoided and minimized by selecting levee alignments that have the least footprints in wetlands, minimizing the amount of enclosed wetlands, and sizing the lock and structures to allow for sufficient flow, now and in the future.

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Location in EIS							Comments
PN	Alt	AE	EC	CC	M	CI	
	X	X	X		X	X	Identify environmentally acceptable borrow sources
X	X					X	Category 5
	X	X	X				North of Falgoud canal and six miles south has large amount of subsidence caused by fault activation due to oil, gas, and water production from the area. See map.
	X					X	Impacts from protection systems in the past have caused loss of wetlands and loss of access by estuarine dependent species.
		X	X			X	The five-year average annual commercial dockside landings value for Terrebonne parish is \$9,498,621.
		X	X			X	Social and economic impacts, positive and negative, to coastal communities.
	X						All structures, borrow locations, disposal areas, mitigation areas, as well as individual specific features and maps need to be included in the DEIS
	X	X	X		X		BGC structure must be designed to maintain adequate flows.
		X	X		X	X	Dredging of BGC may accelerate marsh erosion and impact the salinity regime and turbidity in the Sister Lake Oyster Seed Reservation.
		X	X		X	X	Seasonal movement and presence of estuarine dependent fish and shellfish can be used in management decision regarding timing of the lock and BGC structure.
		X	X		X		Monitoring plan should include water quality, vegetative and fisheries composition. With station above and below the lock. Reach J-1 monitoring plan could be used as a model.
	X	X	X		X	X	Access road should have culverts at both the north and south ends.
	X	X	X		X	X	Hauled in material should be looked at to avoid impacts from adjacent borrow.
X				X			Request State of Louisiana dedicate \$100 million of the recently provided Coastal Impact Assistance Monies to the Construction of the HNC lock project.
		X	X		X	X	Any increase or decrease in water levels during growing season
		X	X		X	X	Any increase in water levels during the winter months
	X	X	X		X		Any material excavated should be used to form hydrological barrier along the HNC to protect adjacent properties from adverse flooding and water conditions.
	X	X					Right of Way agreements along HNC retain ownership to water bottoms, spoil, spoil disposal sites and their future uses etc.

EIS Scoping Document

Houma Navigation Canal (HNC) Lock Complex and Associated Structures

How to comment on this scoping document:

Anyone interested in commenting on the scope of the proposed project and the draft EIS as outlined in this document is encouraged to contact Mr. Nathan Dayan, Environmental Manager, Ecological Planning & Restoration Section in one of the following ways:

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