

Addendum B

Documentation of Non-Governmental Entity Comments Received



September 4, 2007

Via E-mail: Sean.p.mickal@mvn02.usace.army.mil

Mr. Sean Mickal
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-R
P.O. Box 60267
New Orleans, LA 70160-0267

Re: Comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River – Gulf Outlet Deep-Draft Deauthorization Study, June 2007

Dear Mr. Mickal:

American Rivers submits these comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River – Gulf Outlet Deep-Draft Deauthorization Study, June 2007 (the “MRGO Report”).

American Rivers is a national conservation organization dedicated to protecting and restoring the nation’s rivers and wetlands. American Rivers has over 65,000 supporters nationwide, and works in partnership with thousands of river and conservation organizations.

Summary of Comments

American Rivers supports the recommended measure to construct a rock dam at Bayou la Loutre, but that single measure fails to address the significant public safety threats and extensive wetland losses created by the Mississippi River Gulf Outlet (MRGO). It is essential that the final plan include the full suite of measures discussed below to minimize the storm surge impacts of the MRGO channel and restore the wetlands and storm buffering capabilities lost to the MRGO.

The MRGO Report completely ignores highly credible scientific evidence which demonstrates that the MRGO greatly exacerbated the effects of Hurricane Katrina, leading to catastrophic flooding in New Orleans and St. Bernard Parish. These scientific studies draw a markedly different picture than the MRGO Report about the public safety risks posed by the MRGO, and they dictate additional critical measures that must be taken to protect the greater New Orleans region.

The MRGO Report improperly dismisses, without any analysis whatsoever, measures recommended by a number of conservation organizations, including American Rivers. These recommended measures were designed by scientists to ameliorate the public safety risks created by the MRGO, and to restore the wetlands lost due to the MRGO.

The MRGO Report does not comply with the clear Congressional directives regarding the MRGO closure plan. As discussed below, Congress has made it clear that the final MRGO plan is to include measures for hurricane and storm surge damage reduction and to restore the wetlands lost due to the MRGO.

I. Additional Measures are Needed to Effectively Close the MRGO

American Rivers urges the Corps to include the full suite of measures identified in the *MRGO Must Go* report in the Corps' final plan for the MRGO. Each of these measures is essential for ensuring the future safety and well-being of the people of St. Bernard Parish and the greater New Orleans area, and for promoting effective restoration of wetlands affected by the MRGO. Our concerns with the analysis of these recommendations in the MRGO Report are set forth in Section III of these comments.

The *MRGO Must Go* report contains detailed and scientifically-based measures to ameliorate the damage and continuing threats caused by the MRGO. Those measures were developed by scientists from Louisiana State University Department of Oceanography and Coastal Sciences, Louisiana University Hurricane Center, the Coalition to Restore Coastal Louisiana, and the Lake Pontchartrain Basin Foundation. The *MRGO Must Go* report is endorsed by American Rivers, Lake Pontchartrain Basin Foundation, Coalition to Restore Coastal Louisiana, Environmental Defense, Gulf Restoration Network, National Wildlife Federation, Louisiana Wildlife Federation, and St. Bernard Parish.

American Rivers' recognizes that other planning efforts are underway to provide flood and storm surge protection to the City of New Orleans, including planning for floodgates designed to block storm surge from entering the Inner Harbor Navigation Canal (IHNC). However, these efforts do not obviate the critical need to institute the measures described below. While the proposed floodgates (if properly designed and constructed) would provide some storm surge protection to metro New Orleans, scientists have advised American Rivers that those same floodgates would increase the risk to St. Bernard Parish, New Orleans East, the Lower 9th Ward, and Plaquemines Parish by deflecting storm surge to those areas.

In addition to the closure at Bayou la Loutre and deauthorizing the MRGO as a navigation channel, the following measures must be implemented to ameliorate the damage caused by the MRGO:

1. *Channel Constrictions / Lateral Fills at Other Locations.* It is essential that Reach 2 of the MRGO channel be constricted or closed with lateral fills at four or preferably more locations in addition to the closure at Bayou la Loutre (as the number of lateral fills decrease, the size of those fills would need to increase to provide effective storm surge protection). These lateral fills should be planted with dense native vegetation to anchor them in place and to provide an

additional buffer to wind and wave action during future storm events. These constrictions would convert the MRGO from an open channel into a series of pools, providing at least the following benefits:

- The constrictions/lateral fills would reduce the channel cross section and conveyance capacity of the MRGO channel, reducing both the speed and volume of water that could reach New Orleans, the MRGO levees, or any floodgates or other barriers.
- The constrictions/lateral fills would reduce the amount of flood damage that would be caused by any possible future breach of the MRGO levees by limiting the amount of water available to flow through any breach to the water in the pool immediately adjacent to the breach. Without the constrictions, the MRGO channel would continue to provide a virtually unlimited amount of water at a faster rate through any future levee breaches.
- The constrictions/lateral fills would keep introduced freshwater moving east into now-degraded marshes instead of north into the Industrial Canal and Lake Pontchartrain.
- The constrictions/lateral fills would create an uneven shoreline making it more difficult for storm surge in one part of the coastline to flow sideways and take advantage of a MRGO levee breach in another part of the coastline.
- The constrictions/lateral fills would promote the filling in of the existing channel with sediment and marine debris deposited during storm events. Without the lateral fills, Reach 2 of the MRGO would be more likely to remain at, or close to, its current depth.

2. *Restoration/Rehabilitation of Bank Lines Along the MRGO.* It is essential to reclaim as much of the original 1965 bank lines of the MRGO as is reasonable. While reclamation of both bank lines will provide the most benefit, reclamation must take place along the west side of the MRGO to provide an essential buffer for the MRGO levees as quickly as possible.¹ Reclamation should be done with dredged material to the elevation needed to support native vegetation, approximately 3 to 5 feet. The reclaimed banks should be planted with dense native coastal vegetation to provide added critical protection from storm surge, wind, and wave action. Bank reclamation will provide at least the following benefits:

- Bank reclamation/planting would provide a vitally important line of defense against future levee breaches. As a result, the cost of such reclamation/planting must be assessed in light of the reduced threat to public health, safety, and welfare, and the reduced damage to property from future levee breaches.

¹ Contrary to the Corps' assessment in the MRGO Report, this recommendation does not demand activities that are infeasible from an engineering perspective. See the discussion of this issue in Section III of these comments.

- Bank reclamation/planting would help protect the MRGO levees by minimizing the impacts of storm surge and wind and wave action. The reclaimed banks and vegetation would cause waves to break away from the levees, instead of on or directly against the levees. Evidence shows that south Louisiana levees protected by an appropriate buffer of wetlands or cypress forest had dramatically less chance of failure during Katrina. Studies of Asian tsunamis have also shown that a football field length of dense vegetation could reduce wave energy by up to 95 percent.
- Bank reclamation/planting would help prevent the continued widening of the MRGO channel. The MRGO Report concludes that widening of the MRGO channel from erosion could increase by 1/3 over the next 50 years. As the channel widens, it will put additional stress on the MRGO levees, making them more vulnerable than they are today. Continued erosion could make the levee base vulnerable to geo-technical failures and could require the implementation of expensive protective measures.
- Bank reclamation/planting would reduce the future costs associated with maintaining and reinforcing the MRGO levees.

3. *Restoration / Maintenance of the Narrow Land Between Lake Borgne and the MRGO.* This thin strip of land was once part of the mainland of what is called the central wetlands. Construction of the MRGO isolated this thin strip of land, increased its exposure to storm tides and waves, and exposed it to erosion from boat wakes. This has greatly accelerated land loss in this area. Full restoration of this land mass is necessary to protect the Lake Borgne ecosystem and to ensure that the newly constructed levees on the southwest side of the MRGO are not exposed to even greater winds, tides, and surges.

4. *Restoration of the Ridge at Bayou la Loutre.* Reversing the damage caused when the MRGO channel was cut through the natural ridge at Bayou la Loutre involves plugging the ridge across the channel, restoring the ridge to its natural level, and planting the ridge. Salinity modeling done by scientists at the University of New Orleans shows that pre-MRGO salinity conditions would be restored through combining a Bayou la Loutre closure and freshwater diversion at Violet (see below). Restoring the ridge to its natural level and planting it with dense native vegetation will greatly reduce salt water and storm surge movement into this region.

5. *Expand Riverine Influence.* Reintroduction of freshwater from the Mississippi River is needed to restore and rehabilitate the historic water conditions and wetlands that used to provide storm surge reduction and habitat. The MRGO should be modified to facilitate this restoration through an expanded river reintroduction project at Violet. Preliminary modeling of saltwater flows by the University of New Orleans suggests that approximately 7,500 cubic feet per second of freshwater from Violet will be needed to reestablish historic salinity levels in Lake Borgne during normal rainfall years. The final recommended plan for the MRGO should be designed to accommodate and take advantage of this new freshwater flow, and should include a Violet diversion of the appropriate size as an identified and integral component of the final MRGO closure plan.

II. Scientific Evidence Demonstrates that Additional Measures are Necessary to Protect the Greater New Orleans Area from the Dangers Created by the MRGO

The MRGO Report completely ignores highly credible scientific evidence which demonstrates that the MRGO greatly exacerbated the effects of Hurricane Katrina, leading to catastrophic flooding in New Orleans and St. Bernard Parish. These scientific studies draw a markedly different picture than the MRGO Report about the public safety risks posed by the MRGO, and they dictate additional critical measures that must be taken to protect the greater New Orleans region. Failure to consider the full body of available scientific information has led the Corps to incorrectly conclude that the tentatively recommended plan should not include measures to reduce the storm surge propagation effects of the MRGO channel.

It is essential that the Corps fully evaluate the scientific information discussed below, and any additional scientific information currently being developed by storm surge and engineering experts on the role of the MRGO during Katrina.

Detailed post-Katrina modeling has been carried out by a group of scientists known as Team Louisiana² and by Dr. Hassan Mashriqui from Louisiana State University. This modeling shows that the MRGO channel acts as a conveyor belt for storm surge during Katrina, increasing the speed, volume, and height of waters that eventually flooded much of New Orleans and St. Bernard Parish. The Team Louisiana report discussed below and Dr. Mashriqui's initial modeling shows that during Katrina:

- Water traveled 8 to 10 feet per second through Reach 1 of the MRGO channel—approximately 3 to 4 times faster than it would have traveled over natural wetlands.
- The peak flow rate through Reach 1 of the MRGO channel was about 350,000 cfs—approximately between 6 and 7 times greater than it would have been without the MRGO channel.
- Water traveled 6 to 7 feet per second through Reach 2 of the MRGO channel—approximately 2 to 3 times faster than it would have traveled over natural wetlands.
- The peak flow rate through Reach 2 of the MRGO channel near Bayou Bienvenue was about 258,000 cfs—between 6 and 7 times greater than it would have been without the MRGO channel.
- Approximately 60 billion gallons of water surged through Reach 1 of the MRGO channel—almost 10 times more than the volume of water that would have passed through the original dimensions of the GIWW or through natural wetlands.

² Louisiana State University (LSU) was commissioned in October, 2005 by the Louisiana Department of Transportation and Development (LDOTD) to assemble a team of Louisiana-based academic and private sector experts to collect, review, and evaluate data related to the failure of the levee systems in and around New Orleans during Hurricane Katrina. This group later became known as Team Louisiana.

- Flooding attributable to the MRGO was particularly catastrophic. In Chalmette and the Lower Ninth Ward—where virtually all of the flooding came from the MRGO (and associated navigation channels)—water levels reached 11 feet above sea level in just 3 to 4 hours. By contrast, in metro New Orleans—which saw less flooding from the MRGO—it took days for water levels to reach depths of 5 to 6 feet. While this flooding was also horrendous, the slower rate of flooding gave residents far more time to escape.

To fully appreciate the strength of the flooding from the MRGO it is also important to recognize that Chalmette and the Lower Ninth Ward are located at much higher elevations than metro New Orleans and East New Orleans. Some parts of Chalmette are approximately 3 feet above sea level; the Lower Ninth Ward is approximately 4 feet below sea level; and Lake View of New Orleans and some parts of East New Orleans are approximately 8 feet below sea level.

These initial findings, which have enormous implications for the appropriate steps to take to address the storm surge problems created by the MRGO channel, were presented by Dr. Mashriqui to Maj. General Riley, Director of Civil Works, Steve Stockton, Deputy Director of Civil Works, Zoltan Montvai, Deputy Chief, MVD Regional Integration Team and other Corps employees at a science and technology briefing in Washington, D.C. on March 5, 2007. At that meeting, Dr. Mashriqui offered to work with the Corps to help them better understand his findings and their implications for closing the MRGO. At that meeting, American Rivers and other conservation organizations also urged the Corps to work with Dr. Mashriqui and other scientists.

As noted above, a December 2006 report prepared for the State of Louisiana by Team Louisiana provides a detailed analysis of the role of the MRGO in the post-Katrina flooding of New Orleans. Ivor Ll. van Heerden, G. Paul Kemp, Hassan Mashriqui, *et al.*, *The Failure of the New Orleans Levee System during Hurricane Katrina*, A Report prepared for Secretary Johnny Bradberry Louisiana Department of Transportation and Development, Baton Rouge, Louisiana State Project No. 704-92-0022, 20, December 18, 2006, at Chapter 7 (the “Team Louisiana Report”). The Team Louisiana Report reaches starkly different conclusions than the MRGO Report regarding the role of the MRGO channel in the propagation of storm surge. The Team Louisiana Report also highlights numerous limitations, shortcomings, and misinterpretations applicable to the post-Katrina storm surge modeling relied on in the MRGO Report. Team Louisiana Report at 259-266. A copy of the Team Louisiana Report is attached to these comments.

In December 2006, a number of scientists and engineers also advised Congress that the findings in the draft interim MRGO deauthorization report submitted to Congress were “demonstrably erroneous” and that the Corps’ plan for the MRGO was inadequate for providing hurricane and storm protection to the region. Dr. Robert Bea, University of California at Berkeley; Dr. John Day, Louisiana State University; Dr. Sherwood Gagliano, Louisiana Citizen/Coastal Scientist; Dr. Paul Kemp, Louisiana State University; Dr. Ivor van Heerden, Louisiana State University, *Statement of Concerns* regarding the Corps’ Mississippi River Gulf Outlet Deep-Draft De-Authorization Interim Report to Congress, transmitted to Congress by letter dated December 21,

2006. The findings and plan in the MRGO Report are essentially unchanged from the challenged findings in the draft interim deauthorization report. A copy of the transmittal letter and *Statement of Concerns* are attached to these comments.

In addition to fully evaluating the scientific analyses discussed above:

- The Corps should reassess its wholesale reliance on the IPET findings discussed in the MRGO Report. It is our understanding that the IPET modelers had all the ADCIRC model data available to Louisiana State University and other scientists. As a result, the IPET modelers could have estimated the maximum velocity, peak surge, and volume of surge that passed through the MRGO. However, the IPET report suggests that neither the IPET modelers nor the Corps looked at water velocity or water transport through the MRGO channel. Instead, the IPET report looked only at surge height. If our understanding is correct, the IPET analysis would have limited application as surge height is not the only (nor indeed, the controlling) factor in hurricane and storm induced flooding. Water volume, velocity, wave generation, and duration of high water levels are critical elements that also must be assessed to properly evaluate the MRGO's role in Katrina.
- The Corps should reassess its reliance on the conclusion drawn from the May 2004 Mississippi River Gulf Outlet Reevaluation Study Storm Surge Modeling Assessment. According to the MRGO Report, the only conclusion that can be drawn from that report is that "the MRGO has a minimal influence upon storm surge propagation." MRGO Report at D-EI-1. However, the May 2004 pre-Katrina study looked only at the differences in storm surge propagation with and without a single closure at Bayou la Loutre. As a result, we would posit that the *only* conclusion that could reasonably be drawn from that study is that a single closure structure at Bayou la Loutre would have minimal effect on storm surge propagation; a conclusion that has little to no bearing on the role of the entire MRGO channel in propagating storm surge.

III. The MRGO Report Improperly Dismisses Important Alternatives Out of Hand

As discussed in Section I of these comments, the *MRGO Must Go* report contains detailed and scientifically-based measures to ameliorate the damage and continuing threats caused by the MRGO. These measures were developed by scientists and have been endorsed by numerous environmental organization and St. Bernard Parish.

As discussed below, the MRGO Report improperly dismisses these recommendations without any meaningful assessment, and without considering the critical science discussed above. Failure to properly consider these recommendations has resulted in a tentatively recommended plan that fails to protect the greater New Orleans area and fails to ensure restoration of the wetlands and storm buffering capacity lost to the MRGO.

1. *Channel Constriction / Lateral Fills at Numerous Locations in Addition to Bayou la Loutre.* The Corps dismisses this recommendation as unnecessary. MRGO Report at 80. The Corps does not explain why these additional constrictions are not necessary, but presumably the agency

is relying on its determination that the MRGO channel has only minimal impacts on storm surge propagation. The Corps should reevaluate this conclusion in light of the scientific evidence discussed above.

2. *Restoration/Rehabilitation of Bank Lines Along the MRGO.* The Corps dismisses this recommendation as “infeasible from an engineering viewpoint because it would involve 45-foot or longer sheet piles to keep the fill out of the reduced channel” and because it “is also prohibitively expensive.” MRGO Report at 80. The Corps provides no supporting documentation or analysis for these conclusions.

The Corps should reevaluate its dismissal of this recommendation in light of the scientific information discussed above. The Corps should also reevaluate its dismissal of this recommendation in light of the Corps’ own findings that erosion of the north banks of the inland reach of the MRGO could increase by 1/3 over the next 50 years, even with no traffic on the MRGO. MRGO Report, Appendix D. Continuing bank erosion strongly supports the need for reclamation of the MRGO bank lines.

The final MRGO Report should also include a far more robust assessment and analysis of the potential rate of bank erosion from wind and wave energy over the next 50 years, as unchecked bank erosion would have very serious implications for the safety of the residents of St. Bernard Parish and the greater New Orleans region.

The Corps should also reevaluate its bank reclamation cost assumptions in light of the following:

- The cost of bank reclamation must be assessed in comparison to the cost of future flood damages should the integrity of the MRGO levees be undermined as a result of continued bank erosion and/or lack of a protective buffer in front of the MRGO levees, and the cost of armoring and other structural protective measures for the MRGO levees.
- The Corps has misinterpreted the proposed bank reclamation measure, leading to an assessment of costs based on unnecessary actions. The Corps appears to have assessed the cost of reclaiming the MRGO banks to the precise point of the original MRGO channel dimensions. This ignores the clear language of the bank reclamation recommendation in the *MRGO Must Go* report which clearly states that bank reclamation should reach as close to the original 1965 bank lines of the MRGO “as reasonable.” The Corps’ misinterpretation also ignores one of the principal purposes of bank reclamation—providing a viable buffer to the MRGO levees. If the costs of full bank reclamation are in fact prohibitively expensive as the Corps suggests, the Corps should evaluate the cost to reclaim at least some reasonable buffer area between the open channel of the MRGO and the MRGO levees.
- Since the channel will be deauthorized for navigation, there would be no need for extraordinary measures—like 45-foot sheet piles—to keep the fill out of the MRGO channel.

- The Corps has provided no details whatsoever on the cost assessment so it is impossible to comment on the methodology that was used. The Corps should provide a full cost assessment for bank reclamation in light of the public safety benefits it would provide.

3. *Restoration / Maintenance of the Narrow Land Between Lake Borgne and the MRGO.* The Corps does not evaluate this provision other than to say that this action is being proposed as part of operations and maintenance activities authorized under Public Law 109-234. Since the Corps is already considering actions to address this issue, we must assume that the Corps agrees that this is an important measure for restoring the damage caused by the MRGO. As a result, this measure should be included in the final recommended plan, particularly since the activities currently planned under Public Law 109-234 may not be sufficient to address the problem and because the operations and maintenance provision of Public Law 109-234 contains no stated directives regarding the MRGO.

4. *Restoration of the Ridge at Bayou la Loutre.* The Corps does not evaluate this recommendation, but instead says only that it “could be considered under the LACPR.” MRGO Report at 80. Because this is an integral component of comprehensive restoration of the areas affected by the MRGO, it should be included in the MRGO plan.

5. *Expand Riverine Influence.* The Corps does not evaluate this recommendation, but instead says only that it “could be considered under the LACPR.” MRGO Report at 80. Because this is an integral component of comprehensive restoration of the areas affected by the MRGO, it should be included in the MRGO plan.

The National Environmental Policy Act (NEPA) requires the Corps to “[r]igorously explore and objectively evaluate all reasonable alternatives” in an environmental impact statement (EIS). 40 C.F.R. § 1502.14(a). This requires a “thorough consideration of all appropriate methods of accomplishing the aim of the action” and an “intense consideration of other more ecologically sound courses of action.” *Environmental Defense Fund, Inc. v. Corps of Engineers of U.S. Army*, 492 F.2d 1123, 1135 (5th Cir. 1974). The rigorous and objective evaluation of all reasonable alternatives to a proposed project is the “heart of the environmental impact statement.” 40 C.F.R. § 1502.14. A viable but unexamined alternative renders an EIS inadequate. E.g. *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 814 (9th Cir. 1999). “[T]he discussion of alternatives must be undertaken in good faith; it is not to be employed to justify a decision already reached.” *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F.Supp. 908, 933 (D.Or. 1977).

NEPA also requires the Corps to consider an appropriate range of alternatives before deciding whether or how to proceed with a project. E.g. *Resources Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1307 (9th Cir. 1994). The range of alternatives considered is not sufficient if each alternative has the same end result. *State of California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982) (holding that an inadequate range of alternatives was considered where the end result of all eight alternatives evaluated was development of a substantial portion of wilderness).

The MRGO Report does not comply with these long-standing NEPA requirements. As discussed above, the measures recommended in the *MRGO Must Go* report clearly constitute reasonable—

and indeed, essential—components of a comprehensive MRGO plan that ultimately must be consistent with the LACPR plan. However, these measures were summarily dismissed without the necessary thorough consideration, and in some cases without any analysis or supporting documentation whatsoever. The MRGO Report also looks only at the most limited alternatives, and fails entirely to evaluate any alternatives designed to reduce storm surge and protect public safety. And, the discussion of alternatives appears designed to justify a decision that already had been reached. The MRGO Report dismisses out of hand all alternatives not considered in the Corps' MRGO deep-draft deauthorization interim report.

As a result, the MRGO Report does not comply with NEPA. The tentatively selected plan arising from this flawed NEPA analysis fails to include any measures to protect the greater New Orleans area from future storms and hurricanes, and fails to ensure restoration of the wetlands lost to the MRGO.

IV. The Tentatively Selected Plan Ignores the Clear Intent of Congress

The MRGO Report does not comply with the clear Congressional directives regarding the MRGO closure plan. As discussed below, Congress has made it clear that the final MRGO plan is to include measures to reduce hurricane and storm surge damages and to restore the wetlands lost to the MRGO.

Congress directed the Corps to “develop a comprehensive plan, at full Federal expense, to deauthorize deep draft navigation on the Mississippi River-Gulf Outlet” and to ensure that the plan is “fully consistent, integrated, and included in” the final Louisiana Coastal Protection and Restoration Plan (LACPR Plan) to be issued in December 2007. Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Public Law 109-234). The LACPR Plan will identify “a comprehensive plan for flood control, coastal restoration, and hurricane protection in south Louisiana.” MRGO Report at iv. The report that accompanies Public Law 109-234 further clarifies that the MRGO plan should include “any measures for hurricane and storm protection.” House Report 109-494.

As required by Public Law 109-234, the Corps submitted a MRGO deep-draft deauthorization interim report to Congress in December 2006. That interim report—like the MRGO Report—does not include any measures for hurricane or storm surge damage reduction.

After Congress received the MRGO deep-draft deauthorization interim report, Congress took steps to ensure that the final plan for the MRGO would in fact include measures to reduce or prevent storm surge damage. Congress did this by including clear and directive language in the conference report for the Water Resources Development Act of 2007 (WRDA 2007) that would deauthorize navigation on the MRGO and require the final MRGO closure plan to include, among other things:

- “a plan to physically modify the Mississippi River-Gulf Outlet and restore the areas affected by the navigation channel”;

- “a plan to restore natural features of the ecosystem that will reduce or prevent damage from storm surge”; and
- “a plan to prevent the intrusion of saltwater into the waterway”.

H.R. 1495, Conference Report 110-280, Section 7013. The WRDA 2007 conference report also directs the Secretary to consider the “use of native vegetation” and “diversions of fresh water to restore the Lake Borgne ecosystem.” The conference report was passed by the House on August 1, 2007, and is expected to pass the Senate after Congress returns from its August recess.

This language makes it clear that Congress intended—and, if WRDA 2007 is signed into law, will compel—the Corps to propose a far more comprehensive plan to ameliorate the impacts of the MRGO than has been recommended in the MRGO Report. Congress has made it clear that the final MRGO plan must include measures to restore the wetlands lost to the MRGO and to reduce or prevent damage from storm surge. American Rivers strongly urges the Corps to include the measures identified in Section I of these comments to meet these goals

V. Conclusion

Construction and operation of the MRGO ravaged Louisiana’s coastal wetlands and cypress forests, destroying vital habitat and storm buffering capacity. The full implications of those losses became tragically clear when the remaining wetlands could not effectively buffer the devastating assault of Hurricane Katrina. The MRGO channel added to the devastation during Katrina. The channel acted as a conveyor belt for storm surge, and with the funnel created by the MRGO and the Gulf Intracoastal Waterway, increased the speed, volume, and height of the waters that eventually flooded much of New Orleans and St. Bernard Parish. The open channel of the MRGO also allowed wind and waves to attack and destroy miles of the MRGO levees.

To prevent another Katrina-like catastrophe it is essential that the Corps properly close the MRGO. American Rivers urges the Corps to adopt the measures identified in Section I of these comments in the final recommended plan for the MRGO.

Sincerely,



Melissa Samet
Senior Director, Water Resources

Attachments:
Team Louisiana Report
Scientist Letter and Statement of Concerns

From: [Melissa Samet](#)
To: [Mickal, Sean P MVN;](#)
CC:
Subject: American Rivers Comments on MRGO LEIS; Part 2 of 3
Date: Tuesday, September 04, 2007 4:32:52 PM
Attachments:

Dear Mr. Mickal:

I was not able to email the Team Louisiana Report attachment to American Rivers' comments as the Report (even broken into chapters) is too large. I request that the Corps of Engineers download the entire report and include it in the administrative record as part of American Rivers' comments. The report can be accessed at <http://www.dotd.louisiana.gov/administration/teamlouisiana/>

I apologize for any inconvenience.

Thank you again for your assistance

Dear Mr. Mickal,

Attached are American Rivers comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River-Gulf Outlet Deep-Draft Deauthorization Study, dated June 2007.

I will be sending two additional emails with the attachments to our comments. The attachments consist of a December 2006 Team Louisiana Report and a December 21, 2006 scientist letter and Statement of Concerns. Both are referred to in our comments and I request that both attachments be included in the Administrative Record along with our comments.

I would very much appreciate it if you could respond to this email to let me know that you have received our comments in a timely manner and that they will be included in the Administrative Record.

Thank you for your assistance,

Melissa Samet

Senior Director, Water Resources

American Rivers

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Please Note The New Suite Number In My Address

American Rivers protects and restores healthy natural rivers for the benefit of people, fish, and wildlife.



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December 21, 2006

VIA FEDERAL EXPRESS

Congresswoman Nancy Pelosi
2371 Rayburn HOB
Washington, D.C. 20515

Senator Harry Reid
528 Hart Office Building
Washington, D.C. 20510

**Re: Hurricane Katrina and Scientists' Statement of
Concerns About U.S. Army Corps of Engineers
Interim Report on Closure of the Mississippi
River-Gulf Outlet**

Dear Congresswoman Pelosi and Senator Reid:

On behalf of five scientists and engineers who have devoted substantial time studying the causes of the catastrophic flooding of Greater New Orleans in the wake of Hurricane Katrina, we are writing to express our grave concerns about the inexcusable failure of the U.S. Army Corps of Engineers to take prompt, effective steps to address one of the major causes of this tragic but avoidable man-made disaster that killed over 1,500 people, destroyed several hundred thousand homes, created hundreds of thousands of refugees, and laid to ruin much of the City of New Orleans and all of St. Bernard Parish. Based on objective scientific and engineering analyses and actual data collected during and after Katrina, it is now clear that the 76-mile waterway built by the Army Corps almost 50 years ago—the Mississippi River-Gulf Outlet (“MR-GO”)—was a major contributing cause of the flooding in the Upper and Lower Ninth Ward, New Orleans East, and St. Bernard Parish. Notwithstanding this indisputable evidence, the Army Corps has persistently denied that the MR-GO played any role in the flooding.

Congresswoman Nancy Pelosi
Senator Harry Reid
December 21, 2006
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The latest manifestation of this institutional blind-spot is the Army Corp's Interim Report to Congress concerning de-authorization of deep-draft navigation on the MR-GO released on December 15, 2006. Contrary to the express Congressional mandate, the

Interim Report fails to recommend any hurricane protection measures for dealing with the clear and present danger to human life and property posed by the unremediated MR-GO. Incredibly, the Army Corps falsely asserts that there is no evidence that the MR-GO substantially contributed to the overtopping of floodwalls and destruction of levees in Reach 1 of the MR-GO—the six mile stretch of the combined Gulf Intracoastal Waterway/MR-GO that abuts the Upper and Lower Ninth Ward, New Orleans East, and St. Bernard Parish. As a result of this myopia, the Interim Report makes no hurricane protection recommendations for the most glaring and ominous threat to the future survival of Greater New Orleans.

Nor does the Interim Report address the MR-GO's destructive effects on the region's sensitive environment. It is undisputed that over the last four decades, this federal waterway has killed 65,000 acres—101 square miles—of precious wetlands that serve as nature's buffer against storm surge-induced flooding that occurred during Hurricanes Betsy, Camille, and Katrina. Incredibly, the Army Corps—despite express Congressional instructions—fails to recommend measures for restoring and preserving these vital cypress forests and marshes. As the *Times-Picayune* has stated, the MR-GO is an “environmental cancer.”

The road to recovery for Greater New Orleans faces numerous daunting challenges. Restoring public confidence in the federal government's ability to protect neighborhoods from a recurrence of cataclysmic flooding is paramount. How can we expect evacuees to return, lenders to provide financing for rebuilding homes and businesses, or stores, hospitals, and schools to reopen if the region lacks adequate hurricane protection? While the levee floodwalls and breaches are being repaired and levee flood control features augmented, the MR-GO is a ticking time bomb in the heart of Orleans and St. Bernard Parishes.

In the attached Statement of Concerns, we detail our criticisms of the Interim Report and offer our guidance to Congress about what we as scientists see as the problems and solutions relating to the MR-GO. The good news is that there are practical, effective measures that Congress can promptly legislate that will go a long way toward ameliorating the problem. As Senator David Vitter recently stated, “the closure of the MR-GO is a foregone conclusion.” Now it is time for the Congress to assert its authority and force the Army Corps to clean up the horrible mess that it created.

We would be grateful if you would transmit our Statement of Concerns to the appropriate committees and subcommittees with jurisdiction to review the Army Corps' Interim Report and to exercise oversight over this agency.

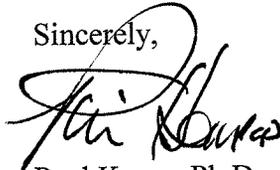
Congresswoman Nancy Pelosi
Senator Harry Reid
December 21, 2006
Page 3

Finally, when the House and Senate committees hold hearings on the Army Corps' Interim Report, we are prepared to appear and offer our scientific views on the

appropriate course of action to protect the people and property of Greater New Orleans from another catastrophic flooding caused by the MR-GO.

We appreciate the opportunity to communicate our views to the people's representatives in Congress.

Sincerely,



Paul Kemp, Ph.D

Attachment

cc: Senator David Vitter
Senator Mary Landrieu
Congressman Charles Melancon
Governor Kathleen Babineux Blanco
Attorney General Charles Foti
New Orleans City Council
St. Bernard Parish Council

STATEMENT OF CONCERNS

We the undersigned scientists have devoted a substantial amount of time—in some cases more than 30 years—to studying the flooding of Orleans and St. Bernard Parishes (“Greater New Orleans”) in the aftermath of hurricanes that have hit the southeast Louisiana coast. As such, we feel obligated to express our grave concerns about the failure of the U.S. Army Corps of Engineers to take adequate steps to protect Greater New Orleans from another catastrophic flood caused by the Mississippi River-Gulf Outlet (“MR-GO”). While efforts are underway to remedy the serious design and construction flaws admitted by the Army Corps with respect to the levees along several canals in New Orleans, the federal government has consistently refused to acknowledge, much less take steps to remediate, the significant contribution of the MR-GO to Hurricane Katrina storm surge and flooding in New Orleans East, the Upper and Lower Ninth Ward, and St. Bernard Parish, and the destruction of tens of thousands of acres of wetland habitat. We had hoped that the Congressionally-mandated study would lead to a candid, scientifically sound assessment of the clear and present danger posed by the MR-GO to public safety and property.

Unfortunately, as it has done so many times in the past since Hurricane Betsy, the Army Corps has failed to perform an objective, thorough technical evaluation. The Army Corps has shown yet again an institutional blindness to the destructive effects of its own project—the MR-GO. It is increasingly obvious that Congress and the people of Louisiana cannot rely on the Army Corps to solve the problem that it created.

In the wake of the devastation inflicted on Greater New Orleans from flooding caused by Hurricane Katrina, Congress directed in Public Law No. 109-234 that the

Army Corps develop “a comprehensive plan, at full Federal expense, to de-authorize deep-draft navigation on the Mississippi River-Gulf Outlet” The Congressional Conference Committee adopted a manager’s statement clarifying that

[t]he plan *shall include* recommended modifications to the existing authorized current use of the Outlet, including what navigation functions, if any, should be maintained and *any measures for hurricane and storm protection*. The plan shall be developed in consultation with St. Bernard Parish, the State of Louisiana, and affected Federal Agencies.

(Emphasis added.)

In an August 29, 2006 letter to the Army Corps, Senator David Vitter of Louisiana, one of the co-authors of the legislation, told the agency that its study must address environmental problems “at the heart of the MR-GO closure discussion.”

On December 15, 2006, the Army Corps submitted to Congress its Interim Report concerning the “Mississippi River Gulf Outlet and Deep-Draft De-Authorization” (“Interim Report”). Contrary to the Congressional mandate, the Interim Report fails to provide a comprehensive plan for closing the MR-GO much less any “measures for hurricane and storm protection.” The science and engineering conclusions that the MR-GO did not contribute materially to hurricane storm surge during Hurricane Katrina are not only demonstrably erroneous, but they are apparently the reason why the Army Corps fails to recommend any hurricane protective measures along Reach 1 and upper Reach 2 of the MR-GO in the Interim Report. This omission is shocking, yet sadly predictable, given both the Army Corps’ historical institutional “blind spot” and the well documented role of the MR-GO in the loss of hundreds of lives and tens of thousands of homes, businesses, schools, hospitals, government facilities and other property. While 30 pages are devoted to economic considerations,

the Interim Report—in direct contravention of Congress’ instructions—fails to offer any recommendations for restoring and preserving precious wetlands that are so vital to mitigating hurricane surge and to the overall health of the sensitive ecosystem of southeast Louisiana.

In its Interim Report, the Army Corps highlights as “particularly viable” what it designates as Option 2a—complete closure of the MR-GO to all vessel traffic (shallow and deep-draft) and construction of an armored earthen dam across the MR-GO immediately south of Bayou La Loutre at Hopedale, Louisiana. Whatever may be the merits of this alternative for preventing salinity intrusion, it affords no appreciable hurricane surge protection for Greater New Orleans.¹ *It is along Reach 1 and upper Reach 2 of the MR-GO in the heart of Greater New Orleans—and not more than 24 miles southeast near Bayou La Loutre—that the greatest surge-induced flooding occurs during hurricanes.* That the Interim Report does not discuss—much less offer any options for ameliorating this conspicuous safety problem—is indefensible.

Similarly, constructing a barrier across lower Reach 2 of the MR-GO and closing all vessel traffic does not address the restoration and preservation of wetlands that is so essential to storm surge control and protecting human life and communities. Mere closure of the MR-GO is not the remedy for reversing decades of loss and restoring this vital ecosystem. What is urgently required is a comprehensive, practical strategy. Since the Army Corps apparently does not—or refuses to—understand the problem, it cannot be expected to fashion the solution.

¹ One of the Army Corps’ studies cited in the Interim Report—*Numerical Modeling of Storm Surge Effect of MRGO Closure* (USACE 2003)—can be interpreted to conclude that a barrier across Bayou La Loutre “actually makes the water level higher in the initial stages of the storm (but not by very much) and considerably higher after the storm passage.” *Id.* at p. 12.

Inexplicably, the Interim Report lacks any sense of urgency. It is another Army Corps call to inaction, recommending more studies addressing the fundamental threat posed by the MR-GO to human life and the environment. Over the past decade, the Army Corps has prepared three reports on the closure of the MR-GO, none of which have acknowledged the readily-ascertainable dangers from maintaining the waterway in its present condition. The scientific case against the MR-GO is compelling.

We endorse Senator David Vitter's recent statement to the Army Corps that in light of the extremely unfavorable benefits-to-cost ratio and the continuing threat to life and property from the unremediated channel, "the closure of the MR-GO is a foregone conclusion. It is time to move in a definitive, specific, and concrete direction to focus on and advance our long-term goals." In the Fourth Emergency Appropriations Bill, Congress already gave the Army Corps authority and \$75 million to be used for "the repair, construction or provision of measures or structures necessary to protect, restore, or increase wetlands, to prevent saltwater intrusion or storm surge." If the Army Corps does not immediately begin to implement this mandate, Congress should direct that the job be undertaken by another responsible federal agency in conjunction with the State of Louisiana.

To assist Congress in evaluating the Interim Report and devising a comprehensive, effective action plan prescribing effective solutions to the multi-faceted problems posed by the MR-GO, we offer the following summary critique of the Interim Report:

1. The MR-GO Contributed To Storm Surge Flooding of Greater New Orleans During Hurricanes Betsy and Katrina

The Interim Report attempts to debunk any relationship between the MR-GO and storm surge. Citing six engineering and hydraulic modeling studies (four of them authored or sponsored by the Army Corps), the Army Corps claims that

[t]hese studies reached similar conclusions that the inland reach of the MRGO does not contribute significantly to peak storm surges during severe storms because the surrounding wetlands are overwhelmed with water. Studies also demonstrated that the most noticeable effect of the MRGO occurs for small surge events where the surrounding marsh areas are not completely inundated.

Interim Report at p. vi.

The Army Corps' reliance on these studies is seriously misplaced for several reasons.

First, empirical data from hurricanes over the past 40 years —as opposed to simulated, after-the-fact modeling²—leads to the inexorable conclusion that the MR-GO was a critical factor in the Hurricane Katrina flooding.

² Five of the six studies cited by the Army Corps to support the proposition that the MR-GO has no appreciable effect on storm surge (Interim Report at pp. 7-8, Appendix 3) were based on hypothetical situations or computer modeling of assumed scenarios, did not rely on actual data from Hurricanes Betsy, Camille, or Katrina, did not evaluate the MR-GO's contribution to storm surge flooding due to destruction of wetlands, and primarily focused on Reach 2—"the long, southeast-trending section of the MR-GO" (Interim Report at Appendix 3, p. 1)—and not the "funnel" in Reach 1 along the GIWW/MR-GO. The Interagency Performance Evaluation Task Force (June 2006) conclusion about the negligible impact of the MR-GO on surge concerned Reach 2, and as noted in the discussion below, this Army Corps sponsored study in fact concluded that storm surge along Reach 1 was sufficiently significant that some form of a surge barrier or closure should be installed. Conspicuously absent from any of these studies is a rigorous, technically sound analysis of the demonstrated contribution of the Reach 1 and upper Reach 2 of the MR-GO—based on real world data—to the substantial enhancement of storm surge height, velocity, and duration or any recommendations about how to remediate this threat to human life and property. As the authors of one of the studies cited by the Army Corps frankly admitted, "no system of equations can really be expected to predict with a great degree of accuracy the complex physical phenomenon of flooding over marshland, bayous, houses, trees, etc." Bretsneider and Collins, *Storm Surge Effects of the Mississippi River-Gulf Outlet*, Nat'l Science Engineering Co. (1966) at p. 62. In short, the Army Corps relies upon inapposite studies that do not address one of the most salient deficiencies in the hurricane protection system surrounding Greater New Orleans.

- *Hurricane Betsy* storm surge data from 1965—gathered from water gauges on the MR-GO at Paris Road (the confluence of the Gulf Intracoastal Waterway (GIWW) and Reach 2 of the MR-GO) and on the Industrial Canal (IHNC) near the opening to Lake Pontchartrain—demonstrates that the 10 foot storm surge that flooded Greater New Orleans in 1965 came from Lake Borgne through Reach 1 of the MR-GO, the backdoor of the hurricane protection system, while the surge on Lake Pontchartrain barely reached 6 feet. (USACE 1965).

- In a 1968 article in the *Monthly Weather Report* published by the National Weather Bureau, the authors wrote:

The low lying marshes over which the storm surge traveled, and the existence of a wide, deep channel (the Mississippi River to Gulf Outlet), along the path of the surge, assisted in carrying the water far inland. The water borne by the Outlet and carried across the marshes was first recorded in New Orleans as a rapid increase in water level at the Paris Road Bridge gage on the Intracoastal Waterway Shortly thereafter, the three gages on the River showed very rapid rises. . . . The high river levees in New Orleans easily contained the 10 ft. above normal low water in the River. The levees around the canals and waterways east of the River are not as high as the river levees and could not contain the water.

D. A. Goudeau and W. C. Conner, *Storm Surge Over the Mississippi River Delta Accompanying Hurricane Betsy, 1965*, 96 *Monthly Weather Review*, No. 2 (1968) at p. 119.

- Empirical data from *Hurricane Camille* in 1969 shows that the highest recorded storm surge elevations in Louisiana—between ten and eleven feet—occurred along the MR-GO funnel from Shell Beach into the Industrial Canal. (USACE 1970).

Significantly, the surge attained essentially the same peak elevation in Reach 1 of the MR-GO and the Industrial Canal as it had during Hurricane Betsy four years earlier.

Second, during Hurricane Katrina, surge elevations peaked in Lake Borgne and the IHNC at higher levels earlier relative to vulnerable levee and floodwall crowns. This would not have occurred had the Army Corps not built the MR-GO and caused the loss of so many thousands of acres of wetland buffer. After a thorough investigation, the U.S. Senate Committee on Homeland Security and Governmental Affairs concluded:

As the eye approached New Orleans, Katrina shoved a 14 to 17 surge up a “funnel” created by hurricane protection levees at the convergence of the south bank of the MRGO and the north bank of the Gulf Intracoastal Waterway, and focused a torrent of water on the Inner Harbor Navigation Canal.

U.S. Senate Committee on Homeland Security and Governmental Affairs,
Hurricane Katrina: A Nation Still Unprepared (May 2006) at Chapter 4-4 (footnote omitted).

Leading scientists have confirmed the devastating effect of the six-mile long funnel along Reach 1 of the MR-GO and its destructive role in causing massive flooding during Hurricane Katrina.

At the western end [of Reach 1], the funnel focused a jet into the IHNC. The U.S. Army Corps of Engineers had inadvertently designed an excellent storm surge delivery system—nothing less—to bring this mass of water with simply tremendous “load”—potential energy—right into the middle of New Orleans.

Ivor L. van Heerden, G. Paul Kemp, Wes Shrum, Ezra Boyd and Hassan Mashriqui,
Initial Assessment of the New Orleans Flooding Event During the Passage of Hurricane Katrina, 2006, p. 4

The same conclusion was reached by an investigative team of independent scientists and engineers in an impartial study of the reasons for the catastrophic flooding in the wake of Hurricane Katrina.

The same storm surge from Lake Borgne that topped and eroded the levees along the “MRGO” frontage also pushed westward over the southeastern corner of the New Orleans East protected section, . . . and this produced overtopping and a number of breaches This was a principal source of the catastrophic flooding that subsequently made its way across the local undeveloped swamplands and into the populated areas of New Orleans East. . . . This storm surge from Lake Borgne also passed westward into a V-shaped funnel” as it entered the shared GIWW/MRGO channel that separates the St. Bernard and New Orleans East protected areas, and this in turn resulted in an elevated surge of water that passed westward along the waterway to its juncture (at a “T”) with the IHNC channel, overtopping a number of levees and floodwalls on both the north and south sides of this east-west trending channel and producing levee distresses and several breaches After reaching the “T” intersection with the IHNC channel, the surge then passed to the north and south (from the “T”) along the IHNC channel, periodically overtopping many (but not all) of the sections of the levees and floodwalls lining the east and west sides of the IHNC, and causing a number of breaches

R.B. Seed, et al., *Investigation of the Performance of the New Orleans Flood Protection Systems in Hurricane Katrina on August 29, 2005* (July 31, 2006), vol. 1, at p. 2-8.

Finally, even the Army Corps-sponsored study by the Interagency Performance Evaluation Task Force (IPET), released earlier this year, concluded that the confluence of the GIWW and the MR-GO created a substantial danger of elevating storm surge levels and water pressure in the Industrial Canal (IHNC) during hurricanes.

The critical section of the MRGO is Reach 1, the combined GIWW/MRGO. It is through this section of channel that Lake Pontchartrain and Lake Borgne are hydraulically

connected to one another via the IHNC. . . . *To prevent storm surge in Lake Borgne from reaching the IHNC or GIWW/MRGO sections of the waterway, flow through the Reach 1 channel must be dramatically reduced or eliminated, either by a permanent closure or some type of structure that temporarily serves to eliminate this hydraulic connectivity.*

IPET Report (June 1, 2006), Section IV, Appendix 6 at pp. 6-7 (emphasis added).

The Army Corps' acknowledgement of the MR-GO's capability of enhancing storm surge is hardly a recent development. Almost two decades ago—long before Hurricane Katrina and the federal lawsuits alleging that the MR-GO contributed to catastrophic flooding in Greater New Orleans—the Army Corps recognized the need to study potential benefits of completely closing the MR-GO. Indeed, the Army Corps' Lower Mississippi Valley Division ("LMVD") suggested prophetically:

[A complete closure]...will control all future channel maintenance problems by controlling bank erosion, prevent[] the associated biological resources problem...[and] *reduce the possibility of catastrophic damage to urban areas by a hurricane surge coming up [MR-GO]*

LMVD Comments to the U.S. Army Corps of Engineers, *Mississippi River-Gulf Outlet St. Bernard Parish, La., Bank Erosion Reconnaissance Report* ("Corps Erosion Report") at p. 1 (emphasis added).

Incredibly, the Interim Report does not even acknowledge the proven storm surge dangers posed by Reach 1—much less note that at least two previous Army Corps-sponsored studies—one only seven months ago—*recommended* "either . . . a permanent closure or some type of structure that temporarily serves to eliminate this hydraulic connectivity." Nothing has changed since the IPET report was released to minimize the serious risks to public safety and property posed by Reach 1 of the MR-

GO. The failure of the Interim Report to deal with this critical safety issue is inexcusable.

With tragic consequences, the Army Corps has consistently underestimated and minimized the effect of the MR-GO and GIWW on surge and waves from before Hurricane Betsy right through to the recent IPET Report. Similarly, the Army Corps has systematically downplayed the known and demonstrable effect of accelerated wetland loss in the funnel area as a result of saltwater intrusion, ship-induced wave action eroding the MR-GO's banks, and the depositing of dredged materials in the marshes. This institutional myopia biases the Army Corps' ability to provide objective, scientifically sound evaluations to Congress and the citizens of Louisiana. Therefore, Congress should be highly skeptical when the Army Corps claims that the MR-GO has no material effect on storm surge amplitude, velocity, or duration. The actual, unbiased data is decidedly to the contrary.

2. Providing Hurricane and Storm Protection

The most credible scientific and engineering data points to the conclusion that the MR-GO's design was flawed in several respects, three of which materially contributed to the flooding of Greater New Orleans: (1) the Army Corps failed to "armor" and prevent ongoing erosion of both banks of the MR-GO; (2) the Army Corps failed to take account of the waterway's inherent and known capacity for accelerating storm-driven surges which would magnify the storm surge's amplitude, force, and duration; (3) the intersection of the MR-GO with the GIWW created a "funneling effect" that drove the force, height, and speed of storm surges to a deadly conclusion.

The northeast shore juncture of the MR-GO and the GIWW is particularly susceptible to erosion induced by saltwater intrusion and the force of waves from passing vessels which in turn leads to loss of marshlands. Yet this critical area has never received adequate protective stabilization measures. Erosion on the northeast shore of the MR-GO between 1965 and 1981 ranged from 100 feet to 600 feet of direct shoreline recession, with rates of erosion measured between six to 26 feet per year; and the volume of erosion is calculated at 9,333,000 cubic yards during this period, or 583,000 cubic yards per year.

In 1988, the Army Corps—in its *Corps Erosion Report*—warned specifically of the grave consequences if no immediate remedial action were taken with regard to the MR-GO:

The unveeved banks of the MR-GO will continue to erode in the absence of remedial action. Currently, banks of the unveeved reaches are retreating at rates from five to over 40 feet per year. The average rate of retreat of the north bank in the 41-mile land cut portion of the waterway is about 15 feet per year. Failure to reduce bank erosion will result in a significant increase in the required maintenance dredging of the waterway in the future.

Corps Erosion Report, supra, at pp. 30-31.

This same report specifically analyzed MR-GO's impact on bank erosion in St. Bernard Parish. The extensive Army Corps study recognized the marshland between Lake Borgne and St. Bernard Parish acted as a natural buffer to hurricane storm surge. The Army Corps acknowledged that between 1968 and 1987, severe bank erosion—caused mostly by human-induced channelization and shipping traffic—had resulted in approximately 4,200 acres of “highly productive marsh adjacent to MR-GO” to vanish.

While the Interim Report discusses possible closure of the MR-GO to all navigation by an armored earthen dam just south of Bayou La Loutre, it makes no recommendations for hurricane protection *over 24 miles northwest* in the upper Reach 2 and Reach 1 of the GIWW. This glaring omission is contrary to the Congressional mandate and the urgent need to address the demonstrated dangers posed by storm surge in these sections of the waterway. Several authoritative studies—whose authors were not afforded the same financial resources as the Army Corps and its contractors—have suggested constructive approaches to remedying this problem, and we commend them to Congress’ attention. These include the *MRGO Channel Restoration and Mitigation Plan and Addendum* (August 2005; July 2006), prepared by Coastal Environments, Inc. for St. Bernard Parish, Louisiana Department of Natural Resources, Coastal Management Division, and U.S. Environmental Protection Agency; Ivor van Heerden and Mike Bryan, *The Storm: What Went Wrong and Why During Hurricane Katrina—The Inside Story From One Louisiana Scientist* (New York, Viking, 2006) at pp. 264-85; *Mister Go Must Go: A Guide for the Army Corps’ Congressionally-Directed Closure of the Mississippi River Gulf Outlet* (December 4, 2006) (authored by Drs. John Day, Mark Ford, Paul Kemp, and John Lopez).

Given its historic state of denial about the MR-GO’s contribution to storm surge, the Army Corps cannot be entrusted with the sole responsibility to devise effective hurricane protection features for Reach 1 and upper Reach 2 of the MR-GO that guarantees that this federal waterway will never again serve as a conduit for surge and waves to Greater New Orleans. Accordingly, we urge that Congress, or alternatively the United States District Court for the Eastern District of Louisiana

presiding over the *State of Louisiana v. United States of America* injunction lawsuit, direct the Army Corps appoint a panel of independent scientists and engineers to devise a plan for mitigating storm surge in Reach 1 and upper Reach 2 of the MR-GO. This intervention is all the more necessary since the Army Corps' "Final Report" on the MR-GO will not be submitted to Congress until December 2007 and *it will contain no recommendations, much less any specific engineering plans, for hurricane and storm protection measures along the dangerous reaches of the MR-GO.*

3. Restoring and Preserving the MR-GO Ecosystem

Out of the one million acres of wetlands lost over the past decades, more than one-half are directly seaward of Greater New Orleans and the more than one million residents of the region. The loss of so much marshlands and cypress forests—65,000 acres (101 square miles) alone destroyed by the MR-GO—poses a serious threat to human life and property. It is well established that these sensitive wetlands provide a natural and effective buffer (friction) for storm surge by “sapping the strength of the storm winds and quite literally swallowing the brunt of the storm surges.” Ivor van Heerden and Mike Bryan, *supra*, p. 170. Even a study cited by the Army Corps in Interim Report concluded that marsh offers three times greater resistance to storm surge than a deep channel. (Bretschneider and Collins (1966))

The prophylactic effect of marshlands is readily demonstrable by comparing areas that were protected and those unprotected by marshlands. During Katrina, four miles of levees exposed to open water along the MR-GO were destroyed and caused enormous destruction in St. Bernard Parish. “By contrast, no Southeast Louisiana levee

protected by wetlands or cypress forest failed under Katrina's onslaught." *Mister Go Must Go, supra* at p. 10.

The Army Corps' own scientists have calculated that every three to four miles of healthy marsh reduces storm surge by one foot. Thus, in addition to barrier islands, wetlands offer the strongest and most natural and economical storm surge protection available. And given the rapid rate at which wetlands are being destroyed—a football field every half hour—it is appalling that the Army Corps failed to make any recommendations for immediate wetlands restoration and preservation in the Interim Report.

It is indisputable that the MR-GO has caused enormous environmental problems from its very inception. With the intrusion of salt water and the degradation of the immediate environs, the MR-GO, as the *Times-Picayune* stated in an editorial, is an “environmental cancer” whose cost of remediation dwarfs any putative economic benefits that were derived from its use over more than four decades. In May 2006, the U.S. Senate Committee for Homeland Safety and Governmental Affairs concluded:

The building of MRGO and the combined GIWW/MRGO resulted in substantial environmental damage, including a significant loss of wetlands that had once formed a natural barrier against hurricanes threatening New Orleans from the east. MRGO and the GIWW/MRGO provided a connection between Lake Borgne and Lake Pontchartrain that allowed the much greater surge from Lake Borgne to flow into both New Orleans and Lake Pontchartrain. These channels further increased the speed and flow of the Katrina surge into New Orleans East and the Ninth Ward/St. Bernard Parish, increasing the destructive force against adjacent levees and contributing to their failure. As a result, MRGO and the combined GIWW/MRGO resulted in increased flooding and greater damage from hurricane Katrina.

U.S. Senate Committee of Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared*, at Chapter 9-6 (May 2006) (emphasis added).

The restoration of marshlands along the MR-GO is a well known, integral, and urgently-needed feature of any comprehensive set of remedies for protecting against a future MR-GO flood disaster. A combination of man-made protections along with the restoration of natural environmental barriers—such as restoring coastal areas, vegetation, and natural ridges—would provide the best lines of defense for much needed protection to Louisiana from future storm surges. Aptly echoing the sentiments of environmentalists for over half a century, the report by an independent panel of preeminent scientists and engineers aptly observed:

“We will never be able to rebuild the coast we had 50 years ago, but the wetlands still out there can be preserved If we do nothing, the gulf will be lapping at the edges of New Orleans in future decades . . . [a]nd if the MRGO stays open, you might as well put a bull’s-eye on the city and tell everybody to clear out on June 1 when the hurricane season starts.”

R.B. Seed, et al., *Investigation of the Performance of the New Orleans Flood Protection System in Hurricane Katrina on August 29, 2006*, at F-68 (May 22, 2006) (“Final Seed Report”) (quoting Carlton Dufrechou, Executive Director, Lake Pontchartrain Foundation).

Once again, the Army Corps in its Interim Report has deferred to another day any recommendations for ameliorating the deleterious effects of the MR-GO on wetlands. This chronic lack of a sense of urgency is troubling given the daily, hourly, and monthly toll exacted on the disappearing marshlands. Every year that we defer taking immediate, comprehensive action—to stop the loss and to begin restoration of this vital ecosystem—only exacerbates the problem and makes the solution more

expensive and tenuous. As one recent report concluded: “While MRGO continues to exist, these wetlands continue to degrade and disappear at an alarming rate, further diminishing their capacity to buffer storms, shelter wildlife, and purify.” *Mister Go Must Go, supra*, at p. 3. We therefore implore Congress to promptly mandate a fully-integrated plan for flood control for Greater New Orleans that includes (1) closure of the MR-GO, (2) hurricane and surge protection in Reach 1 and upper Reach 2 of the MR-GO, and (3) wetlands restoration and preservation.

Time is of the essence. The tragic devastation of Hurricane Katrina was unbearable. But failing to heed the lessons learned—and immediately remediate the MR-GO—is unimaginable.

Respectfully submitted,

Dr. Robert Bea
University of California at Berkeley

Dr. John Day
Louisiana State University

Dr. Sherwood Gagliano
Louisiana Citizen/Coastal Scientist

Dr. Paul Kemp
Louisiana State University

Dr. Ivor van Heerden
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September 20, 2007

U. S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0627

Attn: Sean P. Mickal

Ref: Comments on Draft Legislative Environmental Impact Statement - Mississippi River Gulf Outlet

Dear Sirs:

CITGO Petroleum Corporation (CITGO) offers these comments on the Draft Legislative Environmental Impact Statement for the De-authorization of the Mississippi River Gulf Outlet (MRGO).

CITGO as a member of the Gulf Intracoastal Canal Association (GICA) agrees with the stance taken by that organization and requests that the Corps reexamine the LEIS utilizing the information contained in GICA's response which counters assertions made in the LEIS. In particular, we would refer the Corps to the incorrect economic calculations regarding barge speeds and daily costs, the absence of an economic evaluation of a closure of the Inner Harbor Navigation Canal Lock (IHNC), and inflated costs of keeping the MRGO open to shallow draft traffic.

Unencumbered navigation of the Gulf Intracoastal Waterway is absolutely essential in maintaining the flow of vital supplies on the Gulf Coast and every consideration should be given to this matter before making decisions based on inaccurate information.

Thank you for considering these comments and for further details please do not hesitate to contact the undersigned

Sincerely

Captain Bill Rankine
Manager Marine Technical Services
CITGO Petroleum Corporation
1293 Eldridge Parkway
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(832) 486-4233



Coalition to Restore Coastal Louisiana

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September 4, 2007

To: Mr. Sean Mickal
USACE PPPMD- Environmental Planning and Compliance Branch
CEMVN-PM
PO Box 60267
New Orleans, LA. 70160- 0267

RE: Comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study – Main Report June 2007

Dear Mr. Mickal:

Please accept the following comments from the Coalition to Restore Coastal Louisiana (CRCL) on the “Draft Integrated Final report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study – Main Report June 2007” (LEIS Report) and incorporate comments into the final report.

CRCL commends the U.S. Army Corps of Engineers (USACE) for addressing the need to de-authorize the MRGO channel and place a rock closure structure at Bayou La Loutre. We concur that Alternative 1 should be the Tentatively Selected Plan; however, we see many deficiencies in the LEIS Report which need to be addressed:

The LEIS Report fails to meet the goals and objectives set forth and derived from Congressional authorizing language.

“Develop a comprehensive plan to de-authorize deep-draft navigation on the MRGO Channel from the GIWW to the Gulf of Mexico.” – The LEIS Report is not a comprehensive plan, nor is it an “*Integrated*” plan as stated in the title of the report. The LEIS Report states the MRGO channel is responsible for salt-water intrusion (page 5), wetland loss (page 5), and increased storm surge velocity (page 20). In addition, the induced loss of wetlands reduced the protective barrier

around these communities and increased storm surge heights. However, none of these issues are addressed with the Tentatively Selected Plan.

“Evaluate any navigation functions that should be maintained on the MRGO channel” – The Coalition supports the USACE’s decision to de-authorize the channel.

“Identify measure for hurricane and storm damage reduction.” – The LEIS Report states *“The Tentatively Selected Plan does not propose hurricane and storm damage reduction features”* (page 91). This is in direct opposition to the directive given. To address storm surge, the Corps must require a number of additional lateral constrictions or closures across the MRGO channel that would effectively turn the now open channel into a series of pools. These constrictions would reduce the channel’s ability to increase storm surge and speed up water velocity. The lateral closures would also reduce the amount of flooding from the MRGO in the event of any future levee breaches, and would facilitate the natural filing in of the channel.

“Refine the plan to be fully integrated and consistent with the LaCPR Final Report to Congress.” - As a regular participant in the MRGO stakeholder meetings, the Coalition commends the USACE on the regular inclusion of stakeholders into the MRGO process. But this inclusion cannot be superficial. Many recommendations of complimentary measures had strong consensus by the stakeholder groups, yet were not included in the LEIS Report. CRCL and other NGO’s also submitted a consensus plan of recommendations. However, it is very disturbing that no other recommendations made individually or collectively, are included in the plan. In spite of strong support for many common recommendations, the report deals with stakeholder “comments” on most of these recommendations with: “This could be considered under LACPR” (Section 4). This is not comprehensive, nor integrated. In addition, the Legislative Environmental Impact Statement being completed for the LaCPR will not be completed until July 2008 at the earliest. The MRGO closure and complimentary measures have completed the NEPA process and should move forward now.

The Coalition supports many of the complimentary measures that were proposed during the stakeholder involvement. We strongly request that the following measures be added to the Tentatively Selected Plan to provide a plan that meets the goals and objectives above.

1) Restoration of the Ridge at Bayou la Loutre

2) Channel Severance or Constriction at Other Locations – We recommend three additional plugs of similar design to the closure structure described in the LEIS Report.

These would be located between the Bayou la Loutre plug and the flood gate proposed at Bayou Bienvenue. These additional plugs would serve to segment the 20 mile reach of the channel to reduce wave fetch and the channeling of surge water adjacent to the MRGO levee. This will reduce the risk of damage and failure to the MRGO hurricane protection levee. According to the LEIS Report, several sites for a closure structure were eliminated because of engineering factors, especially channel width and subsurface soil conditions. With a small price tag of \$13.5 million, the additional plugs would add tremendous benefit even with additional costs for additional and superior materials.

3) Central Wetlands Swamp Restoration – As part of the LEIS Report, the USACE should fund the New Orleans Sewage and Water Board project to use treated wastewater for wetlands assimilation and swamp restoration. To assist the restoration of these wetlands, dredged materials should be piped from the Mississippi River to rebuild the swamp elevation.

4) Monitoring – The USFWS makes several important recommendations for the USACE in the LEIS Report. We concur with the following USFWS recommendation.

“The area in and around the total closure structure and key locations from the total closure structure and north as far as Lake Maurepas, if possible, should be monitored to sufficiently determine the hydrologic effects of the closure and to document the changes in circulation patterns, salinity changes, and changes to the hypoxic-anoxic (H-A) zone, which is about 100 square miles in Lake Pontchartrain with the Industrial Canal as the focal point.”

As part of the LEIS Report, the USACE should fund a five-year monitoring effort jointly through the University of New Orleans and the University of Southeastern Louisiana. Monitoring should focus on changes in water quality, vegetation, wetland loss and fisheries.

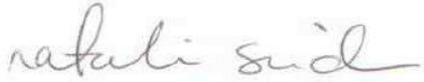
5) Maintaining existing bank stabilization – The USFWS makes several important recommendations for the USACE in the LEIS Report. We concur with the following USFWS recommendation.

“The Corps should investigate and seek legislative approval (e.g., project specific, Continuing Authority Program Section 206, etc.) to maintain the existing 9.9 miles of bank stabilization features and jetties that provide erosion protection benefits.”

6) Violet Diversion – A freshwater diversion from the Mississippi River at Violet is needed to restore the “Central Wetlands” cypress swamp damaged by the MRGO. The Violet diversion has wide support from all the stakeholders. Although other legislation is pending to fund this diversion, the MRGO report should include this measure in the Tentatively Selected Plan since it provides an integral element of the post-MRGO restoration.

As we commemorate the two year anniversary of Katrina, the MRGO channel, which increased the devastation in St. Bernard and Orleans Parishes, is still a threat from any approaching storm. Although we feel it is imperative to include the above measures in the LEIS Report, we urge the USACE to not lose sight of the urgency to begin construction on a closure structure as soon as possible.

Sincerely,

A handwritten signature in cursive script that reads "natalie snider". The signature is written in dark ink on a light-colored background.

Natalie L. Snider
Science Director

GICA
GULF INTRACOASTAL CANAL ASSOCIATION

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wrbutler@comcast.net

September 4, 2007

U. S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0627

Attention: Sean P. Mickal

Comments on Draft
Legislative Environmental Impact Statement –
Mississippi River Gulf Outlet

Dear Sirs:

The Gulf Intracoastal Canal Association offers the following comments on the Draft Legislative Environmental Impact Statement for the De-authorization of the Mississippi River Gulf Outlet (MRGO).

1. We question the accuracy of economic calculations which form the foundation of many of the assumptions contained within the report. Operating practices and costs for inland equipment used in the report, as best we can tell, are far from reality. For instance, the report indicates that inland equipment using this portion of the GIWW operates at a speed of some 19 MPH, and that daily costs for barges using this route are in the vicinity of \$6 /day. Both are not even close to reality. On average, some 30 tows per day use the Inner Harbor Navigation Canal Lock. Their average speed is 5 MPH, and their average cost to shippers is approximately \$7,500 per day, not including the fuel that they consume.
2. The report includes no economic evaluation of the transportation or downstream cost consequences of the Inner Harbor Navigation Canal Lock (IHNC) being closed to navigation for an extended period, but rather only include outages of 24 hours in duration, happening 3 times per year. This is the single most-fatal flaw in the study and can lead any uneducated observer to assume that there are no significant consequences from such an occurrence or that it is very unlikely to happen. Both of these assumptions are dangerously incorrect. The IHNC was closed for 59 days in 1998 for unscheduled gate repair, it was again closed for 16 days after hurricane Katrina due to storm damages, it was most recently closed for 48 hours in August of 2007, and will have to be closed for extended (at least 45 days) periods in the future for planned and unplanned maintenance. The reliability of this 84 year-old structure is at least questionable, and to avoid any meaningful discussion of a prolonged

outage in this study is misleading to those who will pass judgment on the study's recommendations. The MRGO currently serves as the only viable alternate route for inland barge traffic when the IHNC is closed for prolonged periods, and, in fact, was the only route through which relief supplies of fuel and other materials were moved to states of Florida, Mississippi, and Alabama after the devastating hurricane season of 2005. Any discussion relative to inland navigation on the MRGO must include a discussion of the IHNC because of this close-coupling of two. Although other routes were mentioned in the study, none are shown as feasible. We contend that a thorough and complete analysis of accurate economic costs will point clearly to the need for an alternate route around the IHNC until it's currently authorized replacement is completed. We further suggest that the economically justified, viable solution involves use of the existing MRGO channel for inland barges as an alternative to the IHNC during times of prolonged closure. Downstream economic damages resulting from a stoppage of inland barges have been completely omitted from the report. We have at least 6 major chemical manufacturers and refiners that have all indicated significant economic damages if barge traffic is halted beyond a six-day time period. None have been consulted for input to the report. We contend that the effects of a total and complete closure of the MRGO will have significant national economic consequences if IHNC is closed for a prolonged period of time.

3. Projected costs for maintaining an "emergency type" alternative route channel for shallow draft navigation appear to be inflated. We acknowledge that the Baptiste Collette approach channel from the Mississippi River to the MRGO mouth needs dredging, on average, every two years, at a cost of approximately \$3 million. We question the other operation and maintenance costs shown in the report, especially in the early years of use, that are reported as necessary for supporting a 125 foot wide and 12 foot deep shallow draft channel for the stated purpose noted above. Once the IHNC lock is replaced, the need for maintaining the MRGO is significantly reduced, but until that time, it is most essential.
4. In summary, the first of the Corps' "12 Actions for Change" released in the wake of Hurricane Katrina is "Employ integrated, comprehensive and systems-based approach." We question whether that has been done here. The second action is "Employ risk-based concepts in planning, design, construction, operations, and major maintenance." In our view, the spirit of these statements has not been fulfilled here. The Corps should reexamine its LEIS in light of the 12 Actions for Change and the observations made here and issue a revised draft LEIS for further comment.

The Gulf Intracoastal Canal Association is a 102 year-old, 250-member trade association representing users of the Gulf Intracoastal Waterway. We stand ready to assist the Corps of Engineers in addressing these comments in a revised report.

Sincerely,

Raymond Butler
Executive Director
Gulf Intracoastal Canal Association

*COMMENTS BY THE GULF RESTORATION NETWORK
ON THE DRAFT INTEGRATED FINAL REPORT TO CONGRESS
AND THE LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT
FOR THE MISSISSIPPI RIVER GULF OUTLET DE-AUTHORIZATION STUDY
SEPTEMBER 4, 2007*

I write on behalf of the Gulf Restoration Network in response to the New Orleans District's recent public notice regarding the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet De-authorization Study. We initially wish to make clear that we support the Corps plan to plug that channel with a rock dam at Bayou la Loutre. However, we have concerns about other findings and conclusions of this report, which include, but are not limited to, the following:

(1) The plan fails to address significant restoration actions needed to address damage directly attributable to the construction and operation of the Mississippi River Gulf Outlet (hereinafter the MRGO). The Draft Integrated Report acknowledges direct loss of 22,000 of marsh and/or swamp habitats due to MRGO. See p. vi. Yet, the Corps does not include any action within for addressing these losses immediately. Absent the inclusion of such complimentary actions, this plan is simply not an "integrated plan" for deauthorization. References to possible inclusion of restoration requirements in the LACPR are not sufficient.

The Final Integrated Report should include the following:

- Restoration of the Ridge at Bayou la Loutre;
- Additional channel constrictions, such as the Bayou la Loutre plug and a flood gate at Bayou Bienvenue;
- Monitoring of the area in and around the total closure structure and other key locations to determine the hydrologic effects of the closure and to document the changes in circulation patterns, salinity changes, and the like.
- Planning for a freshwater diversion from the Mississippi River at Violet to restore the central wetlands cypress swamp damaged by the MRGO.

(2) The current Draft Integrated Report does not address the storm surge threat posed by the MRGO. Closure must be done in such a manner as to address the surge threat. To address storm surge, the actions proposed by the Report must include a number of additional lateral constrictions or closures across the MRGO channel. These restrictions would essentially turn the open channel into a series of pools, effectively reducing the channels' ability to increase storm surge and facilitating the natural filling of the channel.

(3) To help protect against future levee breaches, the Draft Integrated Report should include reclaiming of the original bank lines of the MRGO, particularly in front of the levees and plant the reclaimed area with dense native vegetation.

Conclusion

Although we support the single action proposed within the Draft Integrated Report, we do not feel the Report presents an integrated approach to dauthorization. It simply does not address either the need to restore the wetlands acreage destroyed by the MRGO and needed for comprehensive storm protection or the storm surge threat posed by the continuing presence of the open channel. The Final Report must present the truly comprehensive integrated approached needed to address the threat to local communities posed by the MRGO.

Respectfully submitted,

Cynthia Sarthou
Executive Director
Gulf Restoration Network
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September 4, 2007

Mr. Sean Mickal
U.S. Army Corps of Engineers
Planning, Programs and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-R
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Mickal:

**RE: DRAFT INTEGRATED FINAL REPORT OF CONGRESS
AND LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT
FOR THE MISSISSIPPI RIVER-GULF OUTLET
DEEP-DRAFT DE-AUTHORIZATION STUDY**

The Gulf States Maritime Association (GSMA) represents ship operators and agents, along with a number of maritime service companies and facilities, handling ocean-going vessels that call Gulf Coast deep-water ports each year. GSMA is dedicated to the safe, efficient movement of maritime commerce through Louisiana's deep-water and shallow-water ports. Our staff has attended many of the public meetings pertaining to the closure of the Mississippi River-Gulf Outlet (MR-GO), and we feel compelled to comment on the Corps' Final Report. GSMA disputes the Corps' statements made in their Final Report regarding the lack of consensus items. Attached are several documents supporting our position, including one entitled "Prioritization-Description of Consensus Items 9.19.06."

Beginning in the Fall of 2006, members of the Corps' Galveston District were tasked with holding several meetings for interested maritime stakeholders. These stakeholders reached agreement on the consensus items documented in the attached. GSMA raised this point several times at public meetings, and the Corps indicated that these were not really consensus items, apparently because certain parties later changed their stance. We believe that Item #3 on the attached clearly demonstrates this point. There was no consensus on whether a "Plug, lock, water control structure, weir" represented the best choice for the structure at the Bayou La Loutre Ridge. In order to come to a consensus, the word "something" was chosen over listing a specific type of structure. Stakeholder members agreed to the following wording as a resolution: "Something located in the MRGO at the Bayou La Loutre Ridge. There were numerous suggestions but no consensus as to what this 'something' needs to be."

Mr. Sean Mickal
Page -2-
September 4, 2007

Item #13 of this same document clearly makes fast tracking for the replacement of the IHNC Lock a consensus item. There was no question about this item. Please note that it does not state that something should be done about the IHNC Lock: “Fully fund a deep draft lock at the IHNC and fast track this project to provide access for navigation to businesses currently relying on the MRGO.”

“The U.S. Congress has directed the Secretary of the Army, acting through the Chief of Engineers, to develop a plan for de-authorization of deep-draft navigation for the MR-GO from the Gulf Intracoastal Waterway (GIWW) to the Gulf of Mexico.” GSMA realizes the Corps was granted some leeway on making its recommendation; however, the logic of closing the MR-GO to shallow-draft transits without pushing for the fast tracking of the 85-year-old IHNC Lock is flawed. Hurricane Katrina taught us many lessons, and everyone involved in the restoration of our waterways should remember that this storm left the Lock out of service for sixteen days. This closure resulted in critical shortages of petroleum and other vital cargoes, which prompted calls from high-ranking, political figures who demanded that the Lock and GIWW be re-opened. Similarly, the closure study also fails to take into account catastrophic failure of the IHNC Lock, which has already experienced several unscheduled closures this year. The closure study does not take into account anything more than scattered, one-day closures. This fact is important because the Final Report uses economic justification to reach its ultimate conclusion for a rock closure at the Bayou La Loutre Ridge.

The Corps has acknowledged that both the recent study completed by the American Society of Civil Engineers and its own Draft Environmental Impact Statement on the closure of the MR-GO to deep-draft navigation conclude that the MR-GO did not play a major role in the flooding of New Orleans. As reported by the Gulf Intracoastal Canal Association (GICA), an average of 30 tows a day transit the IHNC Lock at an average cost of \$7,500 per day to operate each tow. This translates to 5.3 days of closures before the \$1,200,000 annual impact to the shallow-draft industry is used up. Therefore, the economic impact used to support an economic decision has been grossly understated in the Corps’ Final Report.

The current controlling depth of the MR-GO is 22 feet. Maintenance dredging would not be required until shoaling of 10 feet or so occurs. The Corps has stated that it could be seven years before dredging would be required to maintain shallow-draft dimensions. GSMA has been involved in historical discussions concerning the lock replacement, and we believe that once funding is secured, the most aggressive estimate to complete the new lock is 10 years. In accepting these time lines, only two or three years of maintenance dredging might be required. Therefore, it is at least plausible that no dredging would be required on the shallow-draft version of the MR-GO if it were to coincide with the groundbreaking construction of the new lock.

The most critical matter for the MR-GO’s future is merely to maintain an alternative route for shallow-draft transits until the deep-draft IHNC Lock can be constructed.

Mr. Sean Mickal
Page -3-
September 4, 2007

The following statement was taken from page 74 of the Corps' Final Report:

“Stakeholders from St. Bernard Parish offered some potential alternative reports. The USACE agreed to facilitate further discussions between the parties with the goal of resolving the issue prior to completion of the Final Report to Congress.” GSMA does not believe that a viable alternate route exists. At the GICA conference, the Corps' team acknowledged that none of the alternate routes showed much promise. Of the five alternate routes documented in the Final Report, the Corps' Panel advised that only one plausible alternative existed: “Emergency removal of a portion of the rock total closure structure in the event of prolonged delays or inoperability of the IHNC Lock if authorization and funding are available.” This is followed by some clarifying language that expounds on the shortcomings of this plan.

GSMA believes the best recommendation for moving forward with the deep-draft de-authorization is to accommodate shallow-draft transits by either keeping the MR-GO open to shallow-draft vessels or by installing a gated structure with shallow-draft dimensions at the Bayou La Loutre Ridge. By installing such a gate and keeping it closed under normal circumstances, the same benefits will be achieved and a suitable alternative route will be available for emergency use. Once the new lock is complete, if so desired this structure could be closed with rocks.

Very truly yours,

GULF STATES MARITIME ASSOCIATION



Sean M. Duffy, Sr.
President and CEO

Attachments

From:

Randy Moertle

To:

Heinly, Robert W SWG; Aaron Viles; Accardo, Christopher J MVN; Alcantara, Anita C SPN; Allan Colley; Angela Trahan; Arcidiacono, Salvatore J SWG; Baird, Bruce H MVN; Barry Kohl; Behrens, Robert L SWG; Billy Marchal; Bob Thomas; Breaux, Catherine M MVN; Breerwood, Gregory E MVN; Bren Haase; Broussard, Richard W MVN; Bruce Thompson; Lake Pontchartrain Basin Foundation; Channing Hayden; Reppel, Charles; Cherrie Felder; Chris Williams; Cindy Brown; Clyde Martin; Coleman, Wesley E Jr HQ02; Constance, Troy G MVN; Daigle, Michelle C MVN; David Kearney; David Marmillion; Deloach, Pamela A MVN; Edmund Redd - Vulcan Materials Corp; Elmer, Ronald R MVN; George Duffy; Griffith, Rebecca PM5 MVN; Haab, Mark E MVN; Harrison, Richard W SWG; Hasaan Mashriqui; Hawes, Suzanne R MVN; Hitchings, Daniel H MVD; Hite, Kristen A MVN; Honora Buras; James Murphey DOT; Jason Weiss; Jim King - Buzzi Unicem; Joe Caccheri; Joe Cancienne; Joe Suhayda; Joel Dupre; John Ettinger; John Laguens; John Lopez; John Porthouse; Johnny Antill - Antill Pipeline Construction; Joseph LeBlanc; Karl Gonzales; Kevin Wild; Kevin Wild - International Shipholding Corporation; Laird, Diana J SWG; Landry, Vic L MVN-Contractor; Larry Ardoin; Larry Brown - Bollinger; Lee Richardson; Mark Blanchard; Mark Blanchard - NOCS; Mark Davis; Mark Ford; Mark Schexnayder; Mathies, Linda G MVN; Matt Brown - Times Picayune; Medina, Richard SWG; Melissa Samet; Merritt Lane; Mickal, Sean P MVN; Mike Kearney; Miller, Gregory B MVN; Montvai, Zoltan L HQ02; Morgan, Julie T MVN; Murphy, Carolyn E SWG; Naomi, Alfred C MVN; Norwyn Johnson; Oneil Malbrough; Oscar Pena; Padgett, Clint MVN; Palmieri, Michael M MVN; Pat Gallwey; Patrick Sherman NASA; Patrick Williams; Paul Harrison; Paul Kemp; Podany, Thomas J MVN; Randy Hanchey; Ray Sick - Cenac

Towing; Richard Hartman; Ricky Brouillette; Robby Holston - Buzzi Unicem; Roberts, Terrell W SWG; Ruff, Greg MVD; Russell, Juanita K MVN; Russo, Edmond J ERDC-CHL-MS ; Sean Duffy; Shannon Haynes; Shirley Laska; Smith, Susan K MVD; Starkel, Murray P LTC MVN; Steve Gorin; Steven Peyronnin; Strecker, Dennis C MVN-Contractor; Uhrich, Marilyn SWG; Wagenaar, Richard P Col MVN; Waguespack, Leslie S MVD; Wilbanks, Rayford E MVD; Will Rudolph; Worthington, James F SWG; Fisher, Wynecta; Zack, Michael MVN; Alcala, George E SWG; Jodi Satches; John Kovski; Julia Bocco; Mary Shaw; Scott Friedman; Tom Dawson; Tom Denes;

CC:

Subject: RE: Updated Agenda for Sept 20th MRGO Stakeholder Meeting

Date: Wednesday, September 20, 2006 6:09:43 AM

Attachments: [Prioritization-Description of Consensus Items 9.19.06.xls](#)

Please find attached a spreadsheet of consensus items, near and/or long term action goals, and priority categories. I put this together last night to help us all focus our thinking. I will bring handouts to the meeting. I hope this will help.

Randy

Biloxi Marsh Lands Corporation
Work/Fax: (985) 532-6388
Mobile: (985) 856-3630
Email: rmoertle@bellsouth.net

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

From: Heinly, Robert W SWG [<mailto:robert.w.heinly@SWG02.usace.army.mil>]

Sent: Monday, September 18, 2006 2:39 PM

To: Aaron Viles; Accardo, Christopher J MVN; Alcantara, Anita C SPD; Allan Colley; Angela Trahan; Arcidiacono, Salvatore J SWG; Baird, Bruce H MVN; Barry Kohl; Behrens, Robert L SWG; Billy Marchal; Bob Thomas; Breaux, Catherine M MVN;

Breerwood, Gregory E MVN; Bren Haase; Broussard, Richard W MVN; Bruce Thompson; Carlton Dufrechou; Channing Hayden; Charlie Reppel; Cherrie Felder; Chris Williams; Cindy Brown; Clyde Martin; Coleman Jr. Wesley E HQ02; Constance, Troy G MVN; Daigle, Michelle C MVN; David Kearney; David Marmillion; Deloach, Pamela A MVN; Edmund Redd - Vulcan Materials Corp; Elmer, Ronald R MVN; George Duffy; Griffith, Rebecca PM5 MVN; Haab, Mark E MVN; Harrison, Richard W SWG; Hasaan Mashriqui; Hawes, Suzanne R MVN; Heinly, Robert W SWG; Hitchings, Daniel H MVD; Hite, Kristen A MVN; Honora Buras; James Murphey DOT; Jason Weiss; Jim King - Buzzi Unicem; Joe Caccheri; Joe Cancienne; Joe Suhayda; Joel Dupre; John Ettinger; John Laguens; John Lopez; John Porthouse; Johnny Antill - Antill Pipeline Construction; Joseph LeBlanc; Karl Gonzales; Kevin Wild; Kevin Wild - International Shipholding Corporation; Laird, Diana J SWG; Landry, Vic L MVN-Contractor; Larry Ardoin; Larry Brown - Bollinger; Lee Richardson; Mark Blanchard; Mark Blanchard - NOCS; Mark Davis; Mark Ford; Mark Schexnayder; Mathies, Linda G MVN; Matt Brown - Times Picayune; Medina, Richard SWG; Melissa Samet; Merritt Lane; Mickal, Sean P MVN; Mike Kearney; Miller, Gregory B MVN; Montvai, Zoltan L HQ02; Morgan, Julie T MVN; Murphy, Carolyn E SWG; Naomi, Alfred C MVN; Norwyn Johnson; Oneil Malbrough; Oscar Pena; Padgett, Clint MVN; Palmieri, Michael M MVN; Pat Gallwey; Patrick Sherman NASA; Patrick Williams; Paul Harrison; Paul Kemp; Podany, Thomas J MVN; Randy Hanchey; Randy Moertle; Ray Sick - Cenac Towing; Richard Hartman; Ricky Brouillette; Robby Holston - Buzzi Unicem; Roberts, Terrell W SWG; Ruff, Greg MVD; Russell, Juanita K MVN; Russo, Edmond J ERDC-CHL-MS ; Sean Duffy; Shannon Haynes; Shirley Laska; Smith, Susan K MVD; Starkel, Murray P LTC MVN; Steve Gorin; Steven Peyronnin; Strecker, Dennis C MVN-Contractor; Uhrich, Marilyn SWG; Wagenaar, Richard P Col MVN; Waguespack, Leslie S MVD; Wilbanks, Rayford E MVD; Will Rudolph; Worthington, James F SWG; Wynecta Fisher; Zack, Michael MVN; Alcalá, George E SWG; Jodi Satches; John Kovski; Julia Bocco; Mary Shaw; Scott Friedman; Tom Dawson; Tom Denes

Subject: Updated Agenda for Sept 20th MRGO Stakeholder Meeting

I've attached the modified agenda for the upcoming MRGO stakeholders meeting on the 20th. Hope to see you there.

Also, we've made changes to the web site and it is at a new url. The updated address is <http://www.mrgo.swg.usace.army.mil> <<http://www.mrgo.swg.usace.army.mil/>> . It has new information from the latest meetings and presentations as well as the capability for accepting comment. Please look it over and let us know if you have questions.

Bob Heinly
Planning Section
409-766-3992

MRGO CONSENSUS PRIORITIZATION

9/20/06

ITEM NUMBER	DESCRIPTION	PUBLIC SAFETY	ENVIRONMENT	ECONOMIC	COMMENTS
1	Overall, establish Habitat Goals of returning the landscape to historic (1912 – 1932) pre-MRGO conditions (as defined by LPBF's Comprehensive Habitat Management Plan		LONG TERM		1. Dependent of freshwater introduction and constriction/plugging of MRGO 2. Will probably require dredging of Bayou La Loutre
2	Restore Bayou LaLoutre Ridge east of the MRGO to Christmas Camp Lake with introduced sediment and replanting of forest	NEAR TERM	NEAR TERM		1. Will require dredging of Bayou La Loutre; refurbishment of ridge; vegetative planting; freshening of system
3	"Something" located in the MRGO at the Bayou LaLoutre Ridge. There were numerous suggestions but no consensus as to what this 'something' needs to be.	NEAR TERM	NEAR TERM		1. Plug, lock, water control structure, weir
4	Restoration of the Chandeleur Islands with beach nourishment, and including armoring, if necessary.	NEAR TERM	NEAR TERM		1. Breton NWR - Designated Wilderness Area - need clarification from FWS on what type of protection/restoration techniques will be allowed 2. Need legislative de-listing of area as Wilderness Area
5	River reintroductions are needed, including but not limited to one at or near the site of the current Violet siphon, Bayou Dupre, and Bayou Bienvenue. The goal of the river reintroduction is to re-establish historic habitats. It was noted and agreed upon to be sure impacts to navigation on the Mississippi River were considered in all modeling efforts for these and other potential freshwater introductions.	NEAR TERM/LONG TERM	NEAR TERM/LONG TERM	NEAR TERM/LONG TERM	1. Need hydrologic modeling to determine size and location of fresh water introduction(s) (i.e. Violet Canal, Bayou Bienvenue, Bayou Dupre)
6	Long-distance slurry pipeline of sediment for purposes of land restoration throughout the project area.		NEAR TERM	NEAR TERM	1. Need to identify areas for rebuilding marsh platform (i.e. Chandeleur Islands, Lake Athanasio) 2. Need to identify borrow sites (Chandeleur Sound, Lake Bourgne)
7	Improve existing levees, armor them (MRGO levee including banks), increase height where needed and protect them with restored marsh (marsh aprons)	NEAR TERM			1. Use St. Bernard Parish levee height recommendations 2. Restore marsh aprons starting with narrowest and working to widest
8	Storm breakwaters constructed from the Golden Triangle to Bayou St. Malo.	NEAR TERM			1. Determine type of breakwaters (i.e. concrete panels, boudin bags, sunken ships) 2. Initiate feasibility study immediately then planning and design
9	Shoreline protection from the Golden Triangle to Bayou St. Malo.	NEAR TERM	NEAR TERM		1. Rock armoring
10	A levee constructed from approximately Verret to the GIWW including protecting the land of the Golden Triangle.	LONG TERM			1. Initiate planning and design
11	Assured maintenance of MRGO by the Federal Government to new authorized draft.			NEAR TERM	1. Plan recommendation
12	No gate constructed across the MRGO/GIWW at Paris Road	NO LONGER AN ISSUE			
13	Fully fund a deep draft lock at the IHNC and fast track this project to provide access for navigation to businesses currently relying on the MRGO.			NEAR TERM	1. Plan recommendation
14	Find relocation funding for existing businesses that currently rely on the MRGO			NEAR TERM	1. Plann recommendation
15	Subsidize businesses until they are relocated or viable.			NEAR TERM	1. Plan recommendation



Kirby Corporation

Matt Woodruff
Director Government Affairs
matt.woodruff@kirbycorp.com

August 31, 2007

August 31, 2007

U. S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0627

Attention: Sean P. Mickal

**Re: Comments on Draft Legislative Environmental Impact Statement –
Mississippi River Gulf Outlet**

Dear Sirs:

Kirby Corporation “Kirby” offers these comments regarding the Draft Integrated Final Report to Congress and Legislative Environmental Impact Statement for the Mississippi River – Gulf Outlet Deep Draft De-authorization Study “LEIS.” Kirby is deeply disturbed by the errors and omissions in the LEIS and urges the Corps to correct these errors and address these omissions before any final report is delivered to Congress.

Summary of Comments

- *It is essential to maintain a reliable alternative to the Inner Harbor Navigation Canal Lock for inland barge traffic between the Mississippi River and points east. Today, the MRGO provides a part of that link.*
- *The LEIS proposes closure of the MRGO to shallow draft traffic not for the admittedly marginal hurricane protection this action could provide, but because the Corps assesses that there is no economic justification for maintaining shallow draft navigation.*
- *The cost side of the economic analysis upon which the Corps relies has not been disclosed in the LEIS or in response to requests to the Corps for more information¹. What has been revealed of the benefit side of the equation shows*

¹ After the close of business on Thursday, 30 August 2007, Kirby received a spreadsheet from the Corps which is said to show cost figures used as the basis of the cost estimate. In that this information was received essentially one business day prior to the deadline for comments, Kirby has had insufficient time

a deeply flawed analysis that wildly undervalues marine equipment, totally ignores significant secondary impacts, makes totally unsupportable assumptions regarding closures at the IHNC and in general, manipulates data in a manner to support what appears to be the desired outcome of justifying a total closure of the waterway.

- *The alleged high cost of maintaining shallow draft navigation appears to be contradicted by other information in the report that suggests the cost of shallow draft navigation would be negligible for at least the next 7 years and limited for a number of years thereafter.*
- *The study suggests a number of alternatives that can be employed to facilitate shallow draft navigation if the MRGO is closed. However, several of the proposed alternatives are impracticable, and others require the creation of new waterways adjacent to the MRGO, with no comparison of the cost of building the alternative waterways to the cost of maintaining the existing waterway.*
- *In summary, the first of the Corps' "12 Actions for Change" released in the wake of Hurricane Katrina is "Employ integrated, comprehensive and systems-based approach." That has not been done here. The second action is "Employ risk-based concepts in planning, design, construction, operations, and major maintenance." That has not been properly done either. The Corps should reexamine its LEIS in light of the 12 Actions for Change and the detailed comments set out herein and issue a revised draft LEIS for further comment.*

Kirby Corporation, through its subsidiaries, is one of the nation's largest inland barge operators and is the largest operator of inland tank barges. Kirby operates a fleet of over 900 barges and owns or charters approximately 250 towing vessels. Kirby serves a number of customers requiring the dependable movement of products in the Gulf Intracoastal Waterway "GIWW" from points on or west of the Mississippi River to points east of the River. Kirby employs some 3000 people, most of whom live along the Gulf Coast and many of whose families were impacted by hurricanes Katrina and Rita. We are mindful that there is a human dimension to the discussion of the MRGO and reasonable steps must be taken for hurricane protection. That being said, inland waterways transportation is one of the factors that make the Gulf Coast a vibrant economic engine for our nation where families can find jobs. In addressing hurricane protection for certain areas of metropolitan New Orleans, we must be careful not to cripple a transportation system relied upon by the entire city, the region and the nation. We must also be mindful of the need to base our decisions on sound science and facts, rather than emotion. The Corps must head its own directives and employ an integrated, comprehensive and systems-based approach to the MRGO that recognizes it is a link in

to fully study this information and incorporate it into its comments prior to the comment deadline. However, it appears from preliminary perusal of the document that even though the Corps did not include expected closures of the IHNC lock in its benefits analysis, it included substantial sums for "emergency dredging" which we assume is related to unforeseen events. Kirby believes the DEIS must make a much clearer disclosure of the basis for these calculation, including the engineering assumptions and any analyses upon which these cost estimates were based. Additionally, Kirby believes that to the extent "unforeseen" costs are associated with the project, unforeseen benefits should be considered as well.

a much broader transportation system and fully evaluates the impacts removing this link from the system may have, especially in light of the precarious condition of the aging Inner Harbor Navigation Canal "IHNC" or Industrial lock.

Today, the gateway to points east of the River on the GIWW is the IHNC lock. This lock is well beyond its useful life expectancy and is in a poor and deteriorated condition. Only weeks ago, a failure at the lock resulted in its closure for 48 hours. In 1998, it was closed for 59 days for maintenance and repairs. The Corps is currently planning another such extended closure. Our understanding is that such extended planned closures can be expected at least once each decade. The replacement of the IHNC lock was first authorized in the 1950s, but due to a variety of factors, the lock has not been replaced. Today, the efforts to replace the lock are stopped by a Federal Court injunction and it is less than clear when construction will resume. Corps officials have publicly stated as recently as August 24, 2007 at the Gulf Intracoastal Canal Association "GICA" Convention that the construction of the new lock will take an estimated 140 months. The timing of the replacement of the IHNC lock is significant with respect to a decision on the MRGO. The present need for a readily available alternative to the IHNC is predicated in part on the poor condition of the old lock. Although it is difficult to predict the needs of the nation 15 years hence, Kirby suggests that it would be appropriate, once the new lock is in place at IHNC, to re-evaluate the need to maintain the MRGO to provide an alternative route. We offer no opinion today on that issue. What we do say today is that until the IHNC is replaced, a readily available alternative route is essential. Today a part of that route is the MRGO. We believe the date the new IHNC is in place (with a substantial cushion for construction delays) provides the proper planning horizon for any economic analysis of maintaining an alternative route for shallow draft navigation, whether that route be the MRGO or some other route.

The situation at the IHNC lock is relevant to any discussion of the MRGO because the MRGO is a part of the only reasonable alternate route around the IHNC available today, thus providing an essential safety valve for marine traffic in the event the IHNC lock becomes inoperable. Unlike many locks on the inland waterways, the IHNC lock is a single chamber lock, with no alternate chamber for use when the primary chamber is down. While there are other single chamber locks on the GIWW, the IHNC differs in a key respect. While the other locks can be operated in an "open pass" mode in the event of a failure at the lock, the differential in water level between the Mississippi River and the Inner Harbor of New Orleans requires that traffic be locked through at all times. A similar situation is presented for traffic going west from the Mississippi, but there are four options for traffic leaving or entering the Mississippi River from the west: The Algiers Canal and lock, the Harvey Canal and lock, the Port Allen Alternate Route and lock and finally the Atchafalaya River and lock. Because of this redundancy, the failure of any one lock does not threaten westbound commerce. Because of the lack of redundancy, without the alternate route the MRGO currently provides, when the IHNC lock goes down, inland barge traffic going east from the river stops.

Today, if there is a stoppage at the IHNC lock, eastbound traffic from the River may go downstream to Bayou Baptiste Collette, through Bayou Baptiste Collette to Breton Sound and from there up the MRGO to the Inner Harbor, thus bypassing the IHNC lock.

Westbound traffic bound for the river follows the route in reverse. This alternative adds a day to the journey, but it allows traffic to continue. It must be noted that this alternative makes sense only when there is a closure or long delay at the IHNC lock. Hence, inland barge traffic does not use this alternative on a regular basis and the customary measures of ton mile per year or system ton miles per year are not adequate measures of the value of the alternate route. The last significant use of this alternate route of which Kirby is aware was following hurricane Katrina two years ago, when the IHNC was rendered impassible for 16 days. During this time, vitally needed fuel and other commodities were able to reach their destinations on the Mississippi coast, in Alabama and on the Florida panhandle because the alternate route was available. The only other physically possible alternative for modern barge traffic is not commercially viable: Diverting traffic up the Mississippi River to Kentucky, then up the Ohio, and Tennessee Rivers, then down the Tennessee Tombigbee Waterway to Mobile, Alabama, and then on to its ultimate destination. This alternative adds 17 days each way to the journey (34 days round trip) and would require more powerful towing vessels to handle the currents of the Mississippi River.

Kirby notes that the Corps was instructed by Congress to study the De-authorization of the MRGO for **Deep Draft** navigation (emphasis added). This would suggest that Congress recognized the value of the MRGO for shallow draft navigation and intended that the Corps not study or propose to close the waterway to all traffic. However, it seems from the first page of the LEIS that the Corps was searching not for a way to simply de-authorize future activities to facilitate deep draft navigation, but to implement means to actively **prevent** any navigation on the MRGO.

The Corps attempts to support what appears to be its preconceived desire to stop shallow draft navigation on the MRGO through an incomplete and flawed economic analysis of the costs and benefits of maintaining shallow draft navigation. The Corps asserts that the cost of maintaining the MRGO for shallow draft navigation is \$6 million per year, but the economic benefits to be derived therefrom are only \$1.2 million per year. Nowhere in the LEIS or its appendices is there any supporting documentation to suggest the source of the \$6 million per year cost estimate. The Corps should provide a detailed accounting of how they reached this figure and solicit further comments on the LEIS. Because of the omission of support for this figure in the LEIS and the inability of Corps personnel present at either the Inland Waterway User Board Meeting on July 31 or at the GICA Convention on August 24 to offer any explanation of where that number came from, Kirby is compromised in its ability to effectively comment on this issue.

At best, the \$6 million dollar a year figure is a distortion, especially as it relates to the immediate future and the critical period between the present and completion of the IHNC lock replacement. The LEIS suggests and Corps personnel at the GICA Convention confirmed that absent an unexpected catastrophic event such as a major hurricane, the cost of maintaining the MRGO for shallow draft navigation will be virtually nothing for the next 7 years. Tables ENG4 and ENG6 at the bottom of appendix page C-7 suggest that the first dredging of a MRGO segment relevant to providing an alternative path for shallow draft traffic around the IHNC lock would be the reach from mile 6 to 23 and it will need dredging in 7.7 years. Other reaches relevant to the use of

the MRGO as an inland waterways bypass would first require dredging after 17 and 40 years, according to the LEIS appendices. Although Corps personnel stated at the GICA meeting that their maintenance expense calculations were based on the cost of maintaining a 125' X 12' waterway, there is no support for that assertion in the LEIS or its appendices. If that was indeed the basis of the calculations, the LEIS should affirmatively so state. Appendix C on page C-2 suggests that the studied widths were 300' and 500'. These widths are far in excess of those needed for inland barge traffic. If the width used for purposes of calculating the cost of maintaining inland navigation was anything greater than the 125' project width of the GIWW, the analysis should be redone. If the \$6 million per year figure includes the cost of maintaining any segments of the MRGO other than those needed to bypass the IHNC via Bayou Baptiste Collette, the analysis should also be redone to isolate only those costs associated with maintaining a 12' X 125" channel in the appropriate reaches of the waterway.

The revised LEIS should also reflect the cost of maintenance on a year by year basis so that Congress can understand the cost of maintaining the waterway as a function of time, especially insofar as it concerns determining the cost of maintaining shallow draft navigation pending replacement of the IHNC. Since it appears uncontested that the cost of maintaining the MRGO for shallow draft navigation will be virtually nothing for the next 7 years, Kirby must assume in the absence of information in the LEIS that a substantial part of the estimated cost of \$6 million a year reflects the average annual cost of maintenance over a 50 year planning horizon and that most of the costs would be incurred, if at all, in the later years of this 50 year window. Stated another way, the limited information in the LEIS suggests the nation would enjoy economic benefits well in excess of costs for at least 7 years if shallow draft navigation is maintained. It makes no economic sense for the Corps to pursue costly alternatives that will prevent the nation from realizing the economic benefit of the money it has already invested in this waterway. To fully disclose the basis for the cost and benefit calculations, the revised draft LEIS should reflect any inflation and discount factors employed in determining both future costs and future benefits of maintaining shallow draft navigation.

While the LEIS reveals no basis whatsoever for the estimated cost of \$6 million a year for maintaining shallow draft navigation, there is some explanation of the basis of the \$1.2 million a year in estimated benefit. From that explanation, it is clear to Kirby that the analysis was flawed. One striking error is the failure to realistically estimate the duration and consequences of failures at the IHNC lock. The study assumes that the IHNC will close three times per year and the closures will be 24 hours in length. This means that the delay of waiting for the lock will be roughly equal to the added time to take the MRGO bypass and tows will simply wait for the lock to reopen. The assumption regarding lock closures ignores reality. The lock was closed for 59 days in 1998. It was closed for 16 days in 2005. Even within the last month, during the pendency of the comment period for the LEIS, there was an unplanned 48 hour closure of the IHNC lock due to an equipment failure. So, before the LEIS is even finished, we have seen a closure of TWICE the length assumed in the LEIS, which is still just a fraction of the length of closures that can be regularly expected over the 50 year planning horizon chosen for the LEIS. Corps officials say that the IHNC lock requires a dewatering for repairs about every 10 years. The failure to account for the known

periodic need for extended closures is a serious flaw in the LEIS. Additionally, the artificially short period assumed for other closures masks the effects of the failure of the LEIS to consider any of the secondary or further impacts a prolonged closure at the IHNC would have in the absence of a proper alternate route. For example, there is no consideration of the economic impact of the failure to deliver cargo on the industries that depend on that cargo, nor is their consideration of the impact a shutoff of gasoline, diesel and jet fuel would have on consumers in the eastern gulf region. In public comments before the GICA Convention, the Corps stated that if the absence of the MRGO for shallow draft navigation would result in gasoline shortages in the Florida panhandle, their economic model would not address the impacts of this. The impacts of a prolonged closure of the IHNC on the petroleum, petrochemical, steel, electric power, and other industries should be fully evaluated as a part of the economic analysis in the draft LEIS. We know there will be planned outages of significant length from time to time. We can expect there will be additional unplanned outages longer in duration than the 24 hours assumed by the Corps in the draft LEIS, especially since we have already seen one.

There are a number of other analytical flaws that led to the mistaken assertion in the LEIS that the economic benefit of the MRGO is limited to \$1.2 million a year. If one peruses the tables of the appendices, it appears that the vessel delay time calculations were based on an assumption that inland marine equipment would move at a speed of 9.2 miles per hour. (Page B-14). This is far in excess of the speed at which inland vessels actually operate. The use of this erroneous assumption makes the conclusions based upon it unreliable.

The valuation of delay time was based on certain assumptions for the hourly value of marine equipment, shown in Table 10 on page B-16. These tables assume that towing vessels of 1800-2000 horsepower would be used and their hourly operating cost is \$211. They further assume that the hourly operating cost for a barge is \$6.70. While the cost estimate for towboats is well below the current market rate, the hourly value for tank barges, which comprise a significant percentage of the barges using the waterway, is underestimated perhaps tenfold. As noted above, there was no consideration whatsoever of the financial impact on the industrial customers of barge transportation or consumers, which is where the profound impact of a closure would be realized. The draft LEIS should be redone to properly consider these costs and allow for further comment from affected entities.

Another issue of concern is the time period selected for the analysis. It appears that the navigational analysis was based on a review of data for the years 2000, 2002 and 2004 (see, p. B-14). There is no discussion of why these years were singled out and whether they are statistically representative of other years or are reasonably predictive of future years. Table 2 on page B-4 suggests that data is available for a far wider period of time. It also shows that one of the years skipped in the study, 2003, showed three times more barge movements than the year before and ten times the number of the year following. The omission of this year from the data skews the results in support of the favored conclusion of the Corps. The omission of 2005 eliminates from

consideration the 16 day period the IHNC was closed following Katrina and the tonnage that used the Bayou Baptiste Collette/MRGO alternate route as a consequence.

On the basis of the flawed analysis discussed above, the LEIS concluded that the costs of maintaining the MRGO outweigh the benefits. Perhaps in recognition that some form of alternate east-west route is essential to commerce, the LEIS reviewed 5 potential alternative routes for this traffic. However, there was no attempt made to quantify the costs associated with each of these alternatives, so there is no way to determine whether keeping the waterway we already have might be a better alternative to constructing one of the new waterways suggested among the alternatives set out by the Corps.

- The first proposed alternative is to avoid the MRGO and travel across the sounds from Bayou Baptiste Collette to the Mississippi coast. It was admitted at the GICA Convention that this alternative is not feasible, in that this is an open water route for which inland tank barges can not be lawfully used in accordance with Coast Guard determinations.
- The second suggested alternative is a bypass via the Ohio River and Tennessee-Tombigbee Waterway. As noted above, this route is not a practical alternative, as it adds 17 days each way to the journey and would require different, more powerful towboats on the Mississippi River leg of the trip.
- The third is to dredge a new waterway adjacent to the MRGO to get around the dam they propose to build to block the MRGO. It seems a waste of money to create a new waterway when there is a perfectly good existing waterway right next to it. A new waterway is likely to undo some of the benefits that might be derived from a closure of the MRGO. Hence, from an environmental perspective, it would seem no different in end result to leave the MRGO in place, perhaps with a salinity weir, as opposed to dredging a new waterway adjacent to it.
- The fourth alternative is to use Bayou LaLoutre as a bypass around the proposed dam. This alternative suffers the same failing as the third alternative. There is no consideration of the cost of creating this new waterway, the environmental impacts of it, or the costs of maintaining it.
- The fifth proposal is the emergency removal of a portion of the proposed dam across the MRGO if the channel is needed for navigation. This alternative is not practicable. In the situations where there is a need for navigation around the IHNC, it is unlikely that the removal could be organized and executed in time to prevent significant economic harm. This is the only alternative for which any construction cost estimates were presented in the LEIS.

Not considered in the LEIS are other alternatives that would achieve the needs of inland navigation while reducing the cost to the government. One example of such an alternative would be a "barge gate" type structure as is currently being discussed for use as a part of the hurricane protection for the IHNC. Although the structure in that instance would be a normally open structure to be closed upon the approach of a hurricane, if such a structure were put in any dam built across the MRGO, it could be left in a normally closed position. Only if there were a closure at the IHNC would the

barge be floated out of the dam to provide a channel for shallow draft navigation. This would achieve the same effect of a sector gate at a fraction of the cost. Except for those rare occurrences when there is a closure at the IHNC, it would provide the same environmental and limited flood damage protection benefits as the dam that is the preferred alternative in the LEIS.

Kirby recognizes the local sensitivity to issues relating to the MRGO. However, the decision relating to shallow draft navigation has regional and national impacts that must be considered alongside any local impacts, whether real or perceived. Congress needs for the Corps to provide clear, accurate and unbiased information so that it may determine the proper course of action. While Kirby has pointed out a number of errors in the analysis of the LEIS that suggest the study was skewed toward justifying a decision to completely close the MRGO, Kirby is not suggesting that keeping the MRGO open is the only or even the preferred alternative. What Kirby is suggesting is that an alternative to the IHNC lock no more cumbersome or costly to use than the existing MRGO/Bayou Baptiste Collette bypass is essential to avoid the catastrophic economic impact that would be associated with a prolonged closure of the IHNC lock. This alternative must be susceptible to navigation by the types of tows using the waterway today and those that can be expected in the future. An integrated, comprehensive and systems-based analysis and cost comparison must be completed, with particular attention to the costs of any solution during the time period between today and the replacement of the IHNC.

The inadequacies of the draft LEIS and the inability of the Corps to provide additional information in response to requests made at public hearings have limited the ability of Kirby Corporation to meaningfully comment on the substance of the DEIS. Kirby requests that the inadequacies, omissions and errors set out above and those raised by other commenters be addressed and the LEIS be republished in draft form for additional comments prior to its being finalized and presented to Congress as a final report. Kirby is willing to provide additional information to the Corps as it undertakes its further analysis of these issues and any requests for information or inquiries concerning this matter or our comments should be directed to the undersigned.

Thank you for considering these comments.

Sincerely,



Matt Woodruff

Mickal, Sean P MVN

From: Miller, Gregory B MVN
Sent: Monday, August 06, 2007 5:04 PM
To: O'Cain, Keith J MVN; Broussard, Richard W MVN; Mickal, Sean P MVN
Subject: FW: MR GO

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

From: Entwisle, Richard C MVN
Sent: Monday, August 06, 2007 4:40 PM
To: Miller, Gregory B MVN
Cc: Minton, Angela E MVN-Contractor
Subject: FW: MR GO

Greg/Angela,

Here is some information on the proposed alternative MRGO closure at Bayou LaLoutre.

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

From: Ed Peterson [mailto:edpeterson@bellsouth.net]
Sent: Monday, August 06, 2007 4:44 PM
To: Entwisle, Richard C MVN
Cc: 'islander1'; ernesttrujillo@bellsouth.net; EDRENTON@aol.com
Subject: MR GO

RICHARD,

THESE NOTES PER OUR CONVERSATION AFTER LUNCH THIS AFTERNOON.

THANKS A LOT,

ED

I am the Executive Director of the Louisiana River Pilots Association representing all state pilots on the Mississippi River as well as the Calcasieu. I am also the CEO of Peterson & Janssen LLC, a full service provider of logistics and inland waterway services. My associates and I feel that we have come up with a very economical way to block the MRGO channel at Bayou La Loutre which will not involve anywhere close to the projected 270,000 tons of rip rap.

The idea would be to sink approximately 100 LASH barges across the channel . Each barge would be loaded with about 350 tons of rock. A LASH barge is about 60' x 31' with a 12 foot hull. They are fully stackable with corner posts and nests. The 950 foot crossing would take about 16 across by 3 high by 2 wide. This constitutes a 950 feet long, 36 feet high, and 62 feet wide bulkhead which would completely seal off the channel.

The existing LASH fleet is for sale, as this unique service is going by the wayside after almost 40 years. The barges could be loaded at the quarry docks upriver, subsequently eliminating any double handling of the rock. In the event that we decided that it was necessary, we could easily erect a third layer, making the bulkhead 93 feet wide. This will entail an extra 50 or so barges. 150 barges at 350 tons equates to 52,500 tons of rip rap.

We would look forward to preparing a full presentation for the benefit of those USACE officers who will be involved in this decision making process. I can be contacted at 985 249-5226 or edpeterson@bellsouth.net . Please be so kind as to protect our interests in this project.

ED PETERSON

LOUISIANA RIVER PILOTS ASSOCIATION

104 ABADIE LANE

COVINGTON, LA 70433

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EDPETERSON@BELLSOUTH.NET



P.O Box 6965 Metairie, LA. 70009-6965 - SaveOurLake.org

August 30, 2007

RE: Formal Comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study – Main Report June 2007

To: Mr. Sean Mickal
USACE PPPMD- Environmental Planning and Compliance Branch
CEMVN-PM
PO Box 60267
New Orleans, LA. 70160- 0267

Dear Mr. Mickal:

Please accept the attached comments submitted by the Lake Pontchartrain Basin Foundation regarding the “Draft Integrated Final report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study – Main Report June 2007”.

LPBF supports the recommended measure to build a dam in the MRGO at Bayou la Loutre, but find that the report is otherwise wholly deficient in addressing the larger legacy of impacts by the MRGO. Six additional recommendations should be included in the MRGO report. The funding needed for these recommendations are far less than a conservative estimate to replace the wetlands which the USACE admits the MRGO impacted.

It is shameful that the report recommends so little for the MRGO closure, but it would be a greater travesty to not construct the proposed rock dam as quickly as possible.

If you have any questions, please do not hesitate to call or email.

Sincerely,

John A. Lopez, Ph.D.
Director - Coastal Sustainability Program
Lake Pontchartrain Basin Foundation
225 294-4998 504 421-7348 cell
johnlopez@pobox.com

Formal Comments on the Draft Integrated Final Report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study – Main Report June 2007

(Referred to as the “Draft Integrated Final Report”)

**Submitted by the Lake Pontchartrain Basin Foundation
August 30, 2007**

The Tentatively Selected Plan in the Draft Integrated Final Report does not meet the objectives stated by the USACE or the State of Louisiana, such as:

In the Draft Integrated Final Report title -“***Integrated*** Final report to Congress and the Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet Deep-Draft De-authorization Study”,

In the Draft Integrated Final Report goals - “Develop a ***comprehensive plan*** to de-authorize deep-draft navigation on the MRGO channel from the GIWW to the Gulf of Mexico”,

In the letter by Governor Blanco in the Draft Integrated Final Report - “***plan for closure, restoration of the extensive wetlands lost as a direct result of the MRGO, and the integration of this closure into the comprehensive hurricane protection plan***”.

The plan only recommends one specific action, which is to plug the channel with a rock dam at Bayou la Loutre. Although we agree with this measure and agree it is the highest environmental priority, the complete absence of other complimentary actions that might be considered as “**Integrated**”, a “**comprehensive plan**” or addressing the significant “**restoration of extensive wetland loss**” clearly does not meet the federal and state mandates for this report or even the title of the Draft Integrated Final Report .

As a participant in the many meetings, I can testify that the USACE staff emphasized during the planning process that stakeholders present their own comprehensive plans and then work toward some consensus, LPBF presented recommendation from its Comprehensive Habitat Management Plan (see attachment). All this planning activity is documented in the Draft Integrated Final Report as part of the planning activities. LPBF and other NGO’s also submitted a consensus plan of recommendation (see attached). However, it is very disturbing that no other recommendations, made individually or collectively, are included in the plan. In spite of strong support for many common recommendations, the report deals with stakeholder “comments” on most of these recommendations with: “This could be considered under LACPR”. This vague bureaucratic language is totally non-committal to all other restoration measures - even those with complete support by all stakeholders.

Most perplexing is that the Draft Integrated Final Report completely ignores the recommend plan made by the USACE just months earlier in the “Mississippi River Gulf Outlet Deep-Draft De-authorization Interim Report to Congress” (see attachment). Four of the six of the

recommendations made here are included in the USACE's recommendation in the interim report. It is disheartening and insulting to the many folks who participated in this process that so many sound recommendations are left out of the MRGO report.

The fact is that if the Corps acts on the one recommendation in the Draft Integrated Final Report, it is taking the cheapest way out of a huge debacle created by their own hands. It's terrific that the channel can be plugged quickly and cheaply (\$13,500,000), but this low cost should allow other money to be used to address other MRGO channel issues, many of which has been well documented by the USACE. The Draft Integrated Final Report acknowledges direct loss of 22,000 acres (Page vi) of marsh or swamp habitats due to the MRGO. A conservative cost estimate to rebuild the equivalent marsh is at least \$570,000,000. This estimate would actually be much higher if the restoration included building wetlands over the MRGO channel. Nevertheless, the recommended rock dam cost is just 2% of the cost to restore 22,000 acres of typical marsh or swamp outside of the channel.

Specifically, we request that the Draft Integrated Final Report include the following additional measures which allow a plan which is more integrated, comprehensive and addresses historic wetland loss:

1) Restoration of the Ridge at Bayou la Loutre.

Specific design information for this was requested by the USACE during the Draft Integrated Final Report planning. This was provided to Greg Miller with USACE.

Cost: \$80M

2) Channel Severance or Constriction at Other Locations.

We recommend three additional plugs of similar design to the dam described in the MRGO report. These would be located between the Bayou la Loutre plug (in the TSP) and the flood gate planned at Bayou Bienvenue. These additional plugs would serve to segment the 20 mile reach of the channel to reduce wave fetch and the channeling of surge water adjacent to the MRGO levee. This will reduce the risk of damage and failure to the MRGO hurricane protection levee.

Cost: \$60M

3) Central Wetlands Swamp Restoration.

Fund the New Orleans Sewage and Water Board project to use treated wastewater for wetlands assimilation and swamp restoration.

Cost : \$50M

Rebuild swamp elevation with piping of dredged material from the Mississippi River into the Central Wetlands area.

Cost: \$100 M

4) Monitoring

The USFWS makes several important recommendations for the USACE in the MRGO report. We concur with the following USFWS recommendation.

USFWS recommendation (MRGO Report):

“The area in and around the total closure structure and key locations from the total closure structure and north as far as Lake Maurepas, if possible, should be monitored to sufficiently determine the hydrologic effects of the closure and to document the changes in circulation patterns, salinity changes, and changes to the hypoxic-anoxic (H-A) zone, which is about 100 square miles in Lake Pontchartrain with the Industrial Canal as the focal point.”

The USACE should fund a five-year monitoring effort jointly through the University of New Orleans and the University of Southeastern Louisiana. Monitoring should focus on changes in water quality, vegetation and fisheries.

Cost \$2M

5) Maintaining existing bank stabilization.

USFWS recommendation (MRGO report):

“The Corps should investigate and seek legislative approval (e.g., project specific, Continuing Authority Program Section 206, etc.) to maintain the existing 9.9 miles of bank stabilization features and jetties that provide erosion protection benefits.”

The new local sponsor should be funded to maintain the 10 miles of bank stabilization features.

Cost: \$20M

6) Violet Diversion.

A freshwater diversion from the Mississippi River at Violet is needed to restore the “Central Wetlands” cypress swamp damaged by the MRGO. A diversion here has very wide support from all the stakeholders. A final report on hydrologic modeling has recently been released by the University of New Orleans (see attachment). This modeling concludes that a diversion at Violet has the potential to achieve the desired ecologic benefits. The state of Louisiana has committed \$50M to this diversion, but additional federal funding is needed. (see attached modeling report)

Cost: Other legislation is pending to fund this diversion. Nevertheless, the Draft Integrated Final Report should include this with the MRGO plan for closure since it provides an integral element of the post-MRGO restoration.

Conclusion

LPBF supports the recommended measure to build a dam in the MRGO at Bayou la Loutre, but find that the report is otherwise wholly deficient in addressing the larger legacy of impacts by the MRGO. The six additional recommendations should be included in the MRGO report. The funding needed for these recommendations are \$200M less than a conservative estimate to replace the wetlands which the USACE admits the MRGO directly impacted. *It is shameful that the report*

recommends so little for the MRGO closure, but it would be a greater travesty to not construct the proposed rock dam as quickly as possible.

Attachments (sent separate email):

- LPBF's Comprehensive Habitat Management Plan
- Mister Go must go -A guide for the Army Corps. congressionally-directed closure of the MRGO
- Violet Diversion modeling report by University of New Orleans
- Preliminary Comprehensive Plan for Deauthorizing the MRGO (USACE Interim MRGO report – Dec 2006)



Gary P. LaGrange
President & CEO

August 31, 2007

Mr. Sean Mickal
U.S. Army Corps of Engineers
Planning, Programs and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-R
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Subject: Draft Integrated Final Report to Congress
and Legislative Environmental Impact Statement
for the Mississippi River-Gulf Outlet
Deep-Draft De-authorization Study

Dear Mr. Mickal:

The following represents the comments of the Board of Commissioners of the Port of New Orleans (the "Port") on the subject report. Rather than addressing all areas of disagreement and concern with the report, the Port will confine its comments to major issues of consequence involved with the Corps' analysis and decision to recommend a complete closure of the MRGO to navigation:

1. A permanent blockage of the MRGO will cause significant economic damage to the region and to private and public interests who have invested more than \$500 million in maritime-related infrastructure dependent on the MRGO. The only significant acreage devoted to industrial use in the City of New Orleans is dependent on this marine access as well. In a region struggling to recover from the largest natural disaster in the nation's history, it is reckless public policy to emasculate this economic base. A gate in the MRGO at Bayou La Loutre, which the Port supports, would achieve the same result in terms of storm surge protection as a permanent structure, while permitting continuation of navigation. These considerations apparently have been ignored in the Corps' economic analysis leading to their conclusions.

2. A permanent blockage of the MRGO will result in irreparable injury to those entities which invested in maritime infrastructure in reliance on the Corps' Congressionally-mandated obligation to provide marine access. Compensation must be provided to those entities to permit relocation of affected facilities, both as a matter of fairness and as a matter of good public policy.

Mr. Sean Mickal
August 31, 2007
Page 2

3. The economic damage caused by permanently blocking the MRGO is exacerbated by the lack of progress in constructing the new IHNC Lock. The closure of the MRGO to navigation would be less onerous if the new IHNC Lock were completed prior to such closure. While it appears clear that this will not happen, it is unconscionable that the Corps would not vigorously support expediting lock construction as part of its recommendation for the MRGO.

4. The Corps' economic analysis does not consider the effects of a catastrophic closure of the IHNC lock or of a de-watering event in the lock once the MRGO is blocked to navigation. In addition, the costs of barge and tug hire used in the Corps' analysis are unrealistically low. Finally, the Corps' economic analysis does not include the affects of simultaneous MRGO and IHNC lock closures on the Nation's strategic interests or the consequent widespread economic impacts of disruption to vital industries such as refineries and power plants.

5. We question the Corps' analysis of O&M costs for maintaining a shallow draft channel (12' X 125') in the MRGO. Such a channel is needed primarily as a bypass route in the event of a closure of the existing IHNC lock. The Corps has stated elsewhere that no maintenance would be required for the first seven years. Further, since the new IHNC lock can be operational in approximately 10 years, the MRGO channel would not be needed beyond that time. At most, only two or three years of maintenance would be incurred. Also, maintenance at the bar would not be required for an MRGO channel used as a bypass route.

We thank you for the opportunity to comment on the draft report.

Sincerely,



Gary P. LaGrange

GPL/lc

BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS

Post Office Box 60046•New Orleans, Louisiana 70160•504 528-3203•Fax: 504 528-3397



September 4, 2007

Mr. Sean P. Mickal
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Mickal:

Rhodia Inc. is pleased to submit these comments to the Army Corps of Engineers in response to its Draft Environmental Impact Statement on the Closure of the Mississippi River Gulf Outlet (MRGO).

Rhodia is an international specialty chemical company operating at 20 locations throughout the U.S. and Canada. The company's Eco Services enterprise operates six production sites including one in Baton Rouge, Louisiana.

Rhodia's Baton Rouge plant produces and regenerates sulfuric acid used in gasoline refining and other chemical production. Refineries, in particular, count on reliable deliveries from Rhodia; an interruption in supplies could cause customers' refineries to shut down—perhaps for weeks or months—until sulfuric acid deliveries resume.

The Baton Rouge site supplies certain customers by barge, utilizing the Inner Harbor Navigation Canal (IHNC) Lock. Although Rhodia's deliveries are predicated on the Lock's normal operation, Rhodia has anticipated use of the Mississippi River Gulf Outlet (MRGO) as an alternate delivery channel, should the IHNC Lock be unavailable due to mechanical problems (which have occurred in past years) or other issues.

While Rhodia is aware of questions surrounding MRGO and the impact of hurricanes, we also urge the Corps to consider fully and to allow the continued backup availability of MRGO to shallow-draft barge traffic, at least temporarily, or until planned improvements are made to the IHNC Lock.

Potential unavailability of the Lock due to mechanical problems, combined with no reasonable marine alternative, could have a significant impact on barge traffic that supports a state, regional and indeed, national, energy infrastructure. The same storm scenarios that have focused attention on MRGO should be balanced to underscore the importance of this national energy infrastructure and the marine transport network that supports it.

Contrary to this scenario, the DEIS does not consider the consequences of a prolonged closure at IHNC with no reasonable alternative, a situation that we and refinery customers could potentially face.

The DEIS also underestimates costs of transportation delay resulting from a closure, not only on the energy and petrochemical sector, but on other industries as well.

Rhodia sincerely hopes the Corps will fully consider these concerns and revisit its decision to close MRGO to all traffic.

We also welcome the opportunity to discuss these issues in greater detail, and to work with the Corps to devise a solution that balances the concerns for storm impacts with the concerns for critical infrastructure.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Harton', written in a cursive style.

James Harton
President, Rhodia Eco Services
and Rhodia North America



Nanette Lockwood
Director of Legislative Affairs
27552 Wekiva Lane
Wesley Chapel, FL 33544
(813) 994-9565

September 4, 2007

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

Attention: Sean P. Mickal

RE: Comments on Draft Legislative Environmental Impact Statement for the
Mississippi River Gulf Outlet

Dear Sirs:

Solutia Inc. offers the following comments on the Draft Final Report to Congress and Legislative Environmental Impact Statement for the Mississippi River Gulf Outlet (MRGO) Deep-Draft De-authorization Study (study).

The immediate construction of a total closure structure across the MRGO is recommended as the only option that fully meets the goals and objectives of the study. According to the authorizing statute, this study is to produce a comprehensive plan to de-authorize deep-draft navigation on the MRGO. The MRGO is routinely used by shallow-draft vessels when the Inner harbor Navigation Canal (IHNC) is unavailable and stakeholders' concerns regarding another viable route have been acknowledged but not resolved. Alternative routes are identified, but all are designated as inappropriate, followed by a comment stating "the USACE will continue to develop these and other options in coordination with stakeholder groups."

If total closure of the MRGO is implemented without a viable alternative route to the IHNC, significant economic costs will be incurred each time the IHNC is unavailable. Although the study assumes the IHNC will be unavailable for short periods of time, there is evidence that the reliability of the IHNC has largely been overestimated and planned maintenance is already anticipated that will take up to 45 days to complete. The IHNC lock needs replacement, which could take up to 140 months, but the project is on hold without a clear starting date.

Solutia's manufacturing facilities located in Texas (Chocolate Bayou), Alabama (Decatur) and Florida (Pensacola) are all highly dependent on the IHNC for shallow-draft barge transportation between the plants and to and from vendors. Solutia's shipments move through the IHNC approximately 25 days during each month at estimated annual costs in excess of \$20 million. The MRGO is the only economically viable route for Solutia's barge traffic when the IHNC is unavailable. Current alternative routes involve moving barges up the Mississippi River and down the Tennessee River, resulting in as

much as a 14 day increase in transportation time plus significantly increased transportation costs. If a 14 day delay occurs without adequate warning, the plants would be at risk of shut down due to lack of raw materials.

An alternative phased closure approach allowing shallow-draft vessels to pass through the MRGO until approximately 2014 is identified but not fully analyzed due to a perceived lack of economic benefit. There is no evidence that the economic analysis conducted included data from all the industries and states that would be impacted by this project, which would make the basis for eliminating this alternative unwarranted. This alternative provides the same benefits as the tentatively selected plan (total closure) but requires additional construction. The total closure does not provide the most economical solution, but is considered to be the most cost-effective when environmental benefits are included. Consequently, if the benefits of a phased closure allowing shallow-draft vessels to use a reconfigured MRGO until the IHNC lock has been replaced, the economic benefits to all stakeholders are likely to be increased, providing a more economically sound solution.

Solutia appreciates the importance of modifying the MRGO and is supportive of its eventual closure but asks that the reliability of shallow-draft transportation through the IHNC be fully addressed prior to any MRGO closure activities.

Thank you for considering these comments.

Sincerely,

Nanette Lockwood

Nanette Lockwood
Director of Legislative Affairs
Solutia Inc.



The American Waterways Operators

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Lynn M. Muench

Senior Vice President - Regional Affairs

September 4, 2007

U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0627

Re: Draft Legislative Environmental
Impact Statement—Mississippi
River Gulf Outlet

Dear Sir or Madam:

The American Waterways Operators (AWO) is the national trade association for the inland and coastal tugboat, towboat and barge industry. AWO's 400 member companies include the owners and operators of barges and towing vessels operating on the inland and intracoastal waterways; the Atlantic, Pacific and Gulf coasts; the Great Lakes; and, ports and harbors around the country. The industry's 4,000 towing vessels and 27,000 barges safely and efficiently transport over 800 million tons of cargo each year, including more than 60 percent of U.S. export grain, vital energy sources such as coal and petroleum, and other bulk commodities that are the building blocks of the U.S. economy. The tugboat, towboat and barge industry provides the nation with a safe, secure, low-cost, environmentally-friendly means of transportation for America's domestic commerce. The Mississippi River Gulf Outlet (MRGO) is essential to this vital waterways commerce. **The potential closure of the MRGO to shallow draft navigation is unacceptable to the AWO membership and, if made known to all existing stakeholders, would be unacceptable to the nation.**

The U.S. Army Corps of Engineers (Corps) was directed by Congress to study de-authorization of the MRGO for deep draft navigation. AWO respectfully asks the Corps to explain their authorization or direction for assessing de-authorization of MRGO for shallow draft navigation. **If the Corps can not provide evidence of authorization or direction from Congress to study de-authorization of the MRGO for shallow draft navigation, AWO respectfully requests the project be halted immediately.**

AWO is also concerned that the Environmental Impact Statement (EIS) contains several inaccuracies and exclusions. If the Corps moves forward with the process, AWO

The Tugboat, Towboat and Barge Industry Association

encourages the Corps to correct these before the final delivery of the report to Congress for the following reasons:

- 1 – The EIS provides no viable alternative to the MRGO;**
- 2 – The monetary estimates provided in the EIS are undocumented; and,**
- 3 – The EIS contains inaccuracies that do not provide a clear picture to Congress.**

First, the EIS proposes to close the MRGO to all navigation, including shallow draft, without the guarantee of a viable alternative inland route for barge traffic. Currently, the MRGO is the only logical alternative to the Inner Harbor Navigation Canal (IHNC) Lock. The lock is 85 years old and has exceeded its life expectancy and reliability by decades. While a new lock has been authorized, it is unclear when, or if, construction will begin. Because of the single chamber nature of the IHNC Lock, a failure at the lock combined with closure of the MRGO will ensure a transportation bottleneck that will interrupt business and impede national security because fuel will not be able to move from Texas and Louisiana to military bases on the Gulf Coast.

The EIS does not consider the consequences of an extended closure of the IHNC Lock with no available alternative route. While the lock was closed for 16 days in the aftermath of Hurricane Katrina, the MRGO played a vital role in ensuring the continuation of commerce in the United States. While the EIS suggests that the costs of maintaining shallow draft navigation for emergencies exceeds the benefits, the Corps does not provide a comparison of the costs of its proposed alternative routes against the cost needed to maintain the capacity for emergency shallow draft navigation in the IHNC Lock. The study drastically underestimates and too narrowly defines the vessel delay costs and the financial impact on industries and communities that rely on river traffic.

The industry depends on the Corps and the U.S. Coast Guard to provide safe, secure and reliable navigation channels. The MRGO provides an essential alternative for shallow draft vessels passage during scheduled or unscheduled closures of the IHNC Lock. **If the Corps does not provide a reliable, cost-effective and safe passage for towing vessels when the IHNC Lock is closed, the economic fabric of the nation will be negatively impacted. The Corps must not consider closure of the MRGO to shallow draft navigation without providing a legal, safe, reliable and cost-effective alternative.** At present, the Corps has not presented such an alternative.

Secondly, the Corps provides an estimate of the average annual cost of maintaining the MRGO and the economic benefits of a 12 foot channel for shallow draft navigation without corroborating documentation. The EIS suggests that, barring a cataclysmic event, the cost of maintaining the MRGO for shallow draft navigation over the next seven years will be minimal.

Third, the many inaccuracies and exclusions contained within the EIS suggest that the study is skewed toward justifying a complete closure of the MRGO. While we recognize that keeping the MRGO open is not the only alternative, it is necessary that the Corps provide adequate information on alternatives.

AWO respectfully requests that the Corps provide additional information and documentation to be republished in draft form and made available for comment before a final report is presented to Congress. It is essential that Congress and all stakeholders have all the details to make the best decision concerning the MRGO.

Thank you for this opportunity to comment on the Draft EIS. We look forward to a more detailed Draft EIS and will welcome the opportunity to further comment.

Sincerely,

A handwritten signature in cursive script that reads "Lynn M. Muench". The signature is written in black ink on a white background.

Lynn M. Muench

Biloxi Marsh Lands Corporation

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August 31, 2007

Sean Mickal
CMVN-PM-RS
Environmental Department
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: MRGO Deep-Draft De-authorization Study Comments

Dear Mr. Mickal:

Biloxi Marsh Lands Corporation (BMLC) owns +150,000 acres in St. Bernard Parish on both sides of the Mississippi River Gulf Outlet (MRGO). As the largest landowners in St. Bernard Parish affected by the MRGO, we would like to make the following comments concerning the Draft – Integrated Final Report to Congress and Legislative Environmental Impact Statement for the Mississippi River – Gulf Outlet Deep-Draft De-authorization Study (MRGO De-authorization Study). For many years, we have been in favor of and have actively advocated the closure of the MRGO. The MRGO impact on the environment is well documented and does not need to be reiterated in our comments. We will try to limit our comments specifically to the MRGO De-authorization Study and to the U.S. Army Corps of Engineers (USACE) comments on measures of the Biloxi Marsh Stabilization and Restoration Plan (4.4.4 Biloxi Marshlands Corporation Plan [pg. 77]). Our comments will be directed at direct quotes from the MRGO De-authorization Study and are as follows:

1. **Page ii** – *“Alternative 1 – Construct a Total Closure Structure across the MRGO near Bayou La Loutre Immediately”*

Comment: We agree with Alternative 1. It has been identified as the Tentatively Selected Plan and we believe that it will provide immediate environmental benefits by partially restoring historical estuarine salinity gradients and tidal conditions.

2. **Page iv** – *“MRGO Final Report and LEIS will also be included as a full appendix of the LACPR Final Report to Congress in December 2007”*

Comment: We concur that the MRGO De-authorization Study should be fully integrated into the Louisiana Coastal Protection and Restoration (LACPR) Report. We believe that stakeholder meetings of the MRGO De-authorization Study provided the vehicle for huge public participation in the coastal restoration planning of the Pontchartrain Basin. Consensus or at least majority opinion (**4.4.5 Stakeholder Consensus Items; pg. 77-78**) was reached on many environmental restoration components and economic issues. We would suggest that all the Consensus Items be given special consideration by the USACE in preparations of the LACPR.

3. **Page vii** – *“Operation and maintenance of the MRGO channel has required the construction of additional features. Bank stabilization measures, also called foreshore protection, have been constructed along several reaches of both the north and south banks of the Inland reach to prevent sloughing of the bank into the channel and to protect adjacent wetlands.”*

Comment: As stated, there exists bank stabilization along the MRGO channel as a direct result of the environmental impacts caused by creation of the MRGO. We recommend that these bank stabilization components be maintained in perpetuity as a part of the MRGO De-authorization Plan. Approximately 91 acres of wetlands are lost per year on the unprotected north bank of the MRGO due to erosion (**Table 3:10 Comparisons of Impacts; pg. 62**). The environmental impacts of the MRGO will continue far beyond any congressional de-authorization of the channel and plugging of the channel. Therefore, we would recommend the maintenance of all bank stabilization measures that presently exist (**5.1 U.S. FISH AND WILDLIFE SERVICE RECOMMENDATIONS; 5**); pg. 86) and construction of new bank stabilization along those areas where it does not exist. The funding for all bank stabilization can come from the current \$12.5 million average annual operations and maintenance expenditures for the MRGO.

4. **Page viii** – *“Chapter 3, under Division B of Title I of the Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, (Public Law 109-148) provided \$75,000,000 for authorized operation and maintenance (O&M) activities along the MRGO. Section 2304 of Chapter 3 in Title II of the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Public Law 109-234) clarified that these funds were to be used for the “repair, construction or provision of measures or structures necessary to protect, restore or increase wetlands, to prevent saltwater intrusion or storm surge.” The USACE currently plans to use these funds for shoreline protection and marsh creation in the vicinity of the MRGO and Lake Borgne. ”*

Comment: We recommend that all \$75M be spent to maintain the existing land bridge through shoreline protection and marsh creation between the

MRGO and Lake Borgne. The preservation of this land bridge will be crucial for using the MRGO a conduit for proposed freshwater introductions near the Violet Canal and into the Biloxi Marshes (see paragraph 1; page xvii of report and **4.5 FINAL INTEGRATED ECOSYSTEM RESTORATION AND HURRICANE PROTECTION: LOUISIANA'S COMPREHENSIVE MASTER PLAN FOR A SUSTAINABLE COAST, 2007**; pg. 79).

5. **Page xii** – *“Existing bank stabilization features and jetties would be de-authorized, but left in place.”*

Comment: As stated in comment #3, the bank stabilization features along the MRGO should be left in place; however, they should also be maintained into the future. It is recommended that the jetties be moved and re-aligned into a southwest-northeast alignment along the southern shoreline of the Biloxi Marsh complex to provide shoreline protection in the lower basin line of defense. There are four and seven mile long rock jetties extending from the mainland into the Breton Sound (**3.1.1 Land Characteristics**; pg. 34). The rocks from the two jetties would provide a minimum of 11 miles of shoreline protection for the Biloxi Marshes. The existing rock located in water depths of 6-8 ft could provide even greater distances of shoreline protection if placed in shallower water nearer existing shorelines. We understand that designed re-alignment of the jetties is not specifically addressed in the MRGO De-authorization Study; however, it should definitely be addressed in the LACPR or other appropriate authorities (**6.2 DESCRIPTION FOR THE TENTATIVELY SELECTED PLAN**; pg. 92).

6. **xvii**– *“Disposal easements and perpetual channel easements not required for continued operation and maintenance of authorized segments of the MRGO Project would be released.”*

Comment: We are not completely clear on what this means. Does this mean that once the disposal easements and perpetual channel easements are released, the private landowner can then conduct legal surface management programs such as leasing for private hunting and building camp sites. We recommend better clarification of this statement.

7. **Page xx** – *“Some vessels may choose to utilize Bayou La Loutre, a Federally authorized channel, to access Chandeleur Sound and numerous waterways in the Biloxi Marshes following installation of a total closure structure on the MRGO channel... . Although the potential number of vessels that would use Bayou La Loutre and the potential impacts of diverted vessel traffic along the waterway cannot be quantified at this time, the overall environmental benefits of the Tentatively Selected Plan will far outweigh any potential impacts to Bayou La Loutre.”*

Comment: As the largest landowners on either side of Bayou La Loutre, we are greatly concerned about potential increased vessel traffic through Bayou La Loutre. The existing bank line of the bayou has already eroded into the surrounding marshes along long stretches of the bayou. Increase vessel traffic can only increase wake erosion of our property. We recommend armoring both banks of Bayou La Loutre. It is anticipated that there would be little maintenance cost once the armoring was installed because of the firm, sandy soil conditions along the bayou.

8. **3.4.2. Summary of Cumulative Effects** Alternative 1– *“Positive environmental cumulative effects are anticipated for water quality, fisheries, wetland vegetation, essential fish habitat, and economics. For water quality and wetland vegetation, the cumulative effects would be moderately beneficial primarily due to potential future projects within the spatial boundary that would be conducive for improving water quality and wetland vegetation resources. For instance, a proposed diversion from the Mississippi River in the vicinity of Violet, Louisiana would direct freshwater into an area north of the closure structure. The combined action of the total closure and the diversion would likely further reduce salinities north of the structure.”*

Comment: It is very important that the cumulative effects of putting a complete closure structure across the MRGO south of Bayou La Loutre and a freshwater introduction into the MRGO near Violet be considered in the LACPR. It is recommended that the cumulative effects of these two actions be highlighted to a greater degree. Although it may be too late to be included in the MRGO De-authorization Study, a recent report, *Hydrodynamic and Salinity Modeling in the Pontchartrain Basin: Assessment of Freshwater Diversions at Violet with MRGO Modifications*, has been completed which shows diversions in the range of 10,000 to 15,000 cfs lower the mean salinity in the Biloxi Marsh by 3 to 5 ppt after 60 days of effective flow and would shift the mean 10 and 15 ppt isohalines towards the Gulf of Mexico by approximately 12 miles. This is significant for the sustainability of wetlands adjacent to the MRGO.

9. **4.4.4 Biloxi Marshlands Corporation Plan** – *“Features of the company’s plan in the vicinity of MRGO are summarized below and the plan is available on the internet <http://www.biloximarshlandscorp.com/>.”*

Comment: Seven features of the plan were commented on by the USACE. Of the seven, items 1,2,4,5, and 6 could be considered under LACPR. Under item 3, BMLC proposed two structures along the MRGO; one near the juncture of Bayou La Loutre as proposed in Alternative 1 of this plan and the other further south near Lake Athanasio. The BMLC plan structure near Lake Athanasio was designed to impede saltwater intrusion south of the Bayou La Loutre ridge. If there is not a structure near Lake Athanasio, we would recommend that the LACPR carefully consider alternative means of

protection for the emergent wetlands south of the Bayou La Loutre ridge since this in an integral part of the Biloxi Marsh complex that cannot be ignored as it was in the State's Coastal Protection and Restoration Authority (CPRA) plan.

10. **4.4.5 Stakeholder Consensus Items** – Biloxi Marsh Lands Corporation, St. Bernard Parish, Lake Pontchartrain Basin Foundation, and Bring New Orleans Back Commission, members of industry, non-Federal interests including the Coalition to Restore Coastal Louisiana (CRCL) put together a list of consensus items. *“These items take into consideration a priority for public safety, while also including opportunities for ecosystem restoration and protection as well as economic development.”*

Comment: We fully support each consensus item and believe that each item be carefully considered by the LACPR.

11. **AREAS OF CONCERN AND CONTROVERSY** – *“The following options have been identified as potential alternative routes around the IHNC-GIWW-MRGO system:*

- *Mississippi River to Baptiste Collette Bayou and into Breton Sound and north up to the back retainer canal on the south side of the MRGO spoil area and up to Bayou La Loutre at Hopedale”*

Comment: We believe that diverting vessel traffic through the back retainer canal would only encourage the deepening and widening of this presently shallow canal. We would recommend eliminating this as an alternative route and consider closing this canal at Bayou La Loutre. The retainer canal does not need to become a new corridor for the introduction of saltwater that would circumvent the MRGO closure structure.

12. **5.1 U.S. FISH AND WILDLIFE SERVICE RECOMMENDATIONS** – *“4) The area in and around the total closure structure and key locations from the total structure and north as far as Lake Maurepas, if possible, should be monitored to sufficiently determine the hydrologic effects of the closure and to document changes in circulation patterns, salinity changes,”*

Comment: Although monitoring does occur through other coastal restoration programs, it is recommended that USACE seek a funding source for monitoring the direct and indirect impacts of the MRGO closure plan. It is believed that plugging the MRGO south of Bayou La Loutre is beneficial to the entire region, however, no one knows for sure whether or not there may be adverse impacts associated with the closure. It is imperative that a monitoring plan be developed and implemented to document any changes that could occur to the adjacent wetlands resulting from the plugging of the MRGO.

13. **6.2 DESCRIPTION OF TENTATIVELY SELECTED PLAN** – *“Table 6.1 Existing MRGO Project Features Under Tentatively Selected Plan.”*

Comment: Both BMLC and LELD agree with the Status under the Tentatively Selected Plan for the list of Existing MRGO Project Features and Authorized O&M Activities.

14. **6.3 MRGO PLAN INTEGRATION INTO LACPR** – *“The Tentatively Selected Plan for MRGO de-authorization will be integrated into ongoing work to develop and evaluate measures for the LACPR plan. These measures currently include shoreline protection, marsh creation, freshwater diversions, and levees and storm gates. Specific work to integrate the components of the MRGO plan with the LACPR plan will include storm surge modeling, environmental planning, and prioritization.”*

Comment: The Tentatively Selected Plan for MRGO De-authorization is a total Closure Structure across the MRGO and ongoing work to develop and evaluate measures for the LACPR plan. This study has repeatedly provided measures and options for coastal restoration that ***“could be considered for incorporation into the LACPR.”*** We recommend that those coastal restoration measures addressed in this report be **strongly considered** by the LACPR. Since the MRGO De-authorization Study does not give specific recommendations for the mitigation of any undesirable effects of plugging the MRGO and/or recommendations for implementation of specific protection and restoration measures, we believe there needs to be a section of the LACPR report devoted specifically MRGO protection and restoration. Specific components mentioned in this Study include shore and bank line protection, marsh creation, environmental monitoring, maintenance of existing shoreline armoring, freshwater introduction, navigation planning, and jetty re-alignment.

15. **6.5 ISSUES TO BE RESOLVED** – *“Implementing the Tentatively Selected Plan would result in the abandonment of channel features constructed for purposes of shoreline protection, levee protection, and channel protection.”*

Comments: See comment 3.

CONCLUSION

Immediate construction of a total closure structure across the MRGO at Bayou La Loutre (Alternative 1) has been identified as the Tentatively Selected Plan. The Draft – Integrated Final Report to Congress and LEIS for the MRGO Deep-draft De-authorization Study addresses how to stop deep-draft vessels from using the channel and a means of de-authorizing the channel, however, it provides no real guidance on how to mitigate for any impacts caused by the closure of the channel. The entire study simply

states that all environmental options mentioned in the study “could be considered for incorporation into the LACPR.” We feel strongly that this does not adequately address the environmental issues associated with this Study. We therefore recommend that greater emphasis be given in **6.3 MRGO PLAN INTEGRATION INTO LACPR environmental**. The MRGO De-authorization Study and LEIS needs to recommend to the LACPR that all the environmental measures mentioned in the Study should be given the highest priority consideration. It would be helpful to the LACPR planners to develop a list of environmental measures mentioned in the study that are directly associated with protection and restoration of the marshes in and around the existing MRGO (i.e maintenance of existing shoreline protection; use of MRGO as conduit for freshwater introduction at Violet; re-alignment of jetties).

As stated earlier, de-authorization of the channel and a plug on the MRGO will not solve the problems associated with this channel. A plug may even create additional unanticipated impacts. There must be some adaptive management mechanism within the LACPR that will address the ongoing problems with the MRGO channel and address those problems that may arise from plugging the channel. This can only be accomplished if this Study provides stronger guidance to the LACPR to consider all the environmental measures associated with total closure of the MRGO to the greatest extent possible.

Sincerely,


William B. Rudolf
President and CEO

WBR:cbs



Shell Chemical LP

Shell Trading

Shell Chemical LP

One Shell Plaza
910 Louisiana
Houston, Texas 77002

Shell Trading

Two Houston Center
909 Fannin
Houston, TX 77010

September 4, 2007

U.S. Army Corps of Engineers
New Orleans District
Attn: Sean P. Mickal
7400 Leake Avenue
New Orleans, LA 70118

Dear Sirs,

We are writing on behalf of Shell Trading (US) Company (STUSCO) and Shell Chemical LP (SCLP), which are affiliated entities of Shell Oil Company, the US affiliate of Royal Dutch Shell plc, to respond to the Army Corps of Engineers' request for public comment pertaining to the proposed de-authorization of the Mississippi River Gulf Outlet (MRGO), as laid out in the Draft Integrated Final Report to Congress and Legislative Environmental Impact Statement of June 2007.

Background

Shell has extensive operations in the United States. Its organizations explore, develop, produce, purchase, transport, and market crude oil and natural gas. They also purchase, manufacture, transport and market oil, motor fuel and chemical products and provide technical and business services.

Shell companies and affiliates ship approximately 4.5 to 5 million tons of oil products through the Inner Harbor Navigation Canal (IHNC) Lock at New Orleans annually. This equates to more than 1500 barges transiting the locks in east and west direction, both laden and empty.

STUSCO is a corporation that acts as the single market interface for Royal Dutch Shell companies and affiliates in the United States. Through its operations, STUSCO buys and sells more than 5 million barrels of hydrocarbons per day in physical markets, making it one of the largest petroleum supply organizations in the United States

SCLP manufactures a variety of bulk chemical products, such as olefins, aromatics, solvents, ethylene oxide/glycols and others. In addition, the company also manufactures a variety of oil products that are associated with the production of olefin feed. Manufacturing facilities are operated, in part, in Texas, Louisiana, and Alabama. These rely heavily upon the U.S. Gulf Coast Intracoastal Waterway (GIWW).

While Shell has multiple reasons for interest in the U. S. Corps of Engineers (the Corps') June LEIS, it is of particular relevance to the issue that SCLP owns and operates a plant at Mobile, AL, that processes in excess of 80,000 barrels per day (bpd) of crude oil. Products produced at the facility include motor gasoline, jet fuel, diesel fuel, heavy fuel oil, and heavy olefin feed. The gasoline and fuels produced by this Mobile plant help to meet the consumer, industrial, and military demand for petroleum products along the US Gulf Coast region from Biloxi, MS, to Pensacola, FL. The heavy olefin feed produced helps meet the requirements of Shell ethylene crackers at Norco, LA, and Deer Park, TX.

Specifically, the plant supplies about 90% of the gasoline, diesel, and jet fuel to the greater Mobile area, about 98% of the same products to the greater Pensacola area, and 100% of the JP8 supply to the military bases in the Florida panhandle. The refinery's gasoline production from crude oil does not meet local market demand, so gasoline blending components, as well as finished gasoline, also must be routinely imported. There are no finished products pipelines to import products into the region, and there is only a minimal pipeline infrastructure to distribute products within the greater Mobile area.

Therefore, the facility is highly dependent on consistent, timely inland marine traffic movements. These movements ensure that enough crude oil is supplied to the facility, and additionally ensure that finished product is brought to the market. The movements also provide for the export of heavy (intermediate) products that must be processed further at other facilities. These latter products must be reliably removed from our Mobile plant so that they do not exceed the facility's storage capacity and cause the plant to reduce or shut down production. If the supply chain of these intermediate products is curtailed at any point for whatever reason, then the ability of the plant to meet the local demand for finished product is jeopardized.

To further clarify, operations at the Mobile facility and the gasoline supply for the region are specifically dependent on the timely movement of 50,000barrel-capacity, shallow-draft unit tows. Oceangoing vessels cannot be used due to a lack of deepwater jetties and related logistics facilities in the area. If weather is severe in the Gulf, or if tows are delayed due to congestion at or failure of locks, logistics, operations and supply are adversely affected.

Supply Management During Crises

In times of supply crisis, product imports from the New Orleans area have "saved the day" in the Mobile and Pensacola areas. When a major storm approaches, the Mobile refinery must shut down all production units for safety reasons, while at the same time demand for gasoline soars during regional evacuation.

Events during and after Hurricane Katrina serve as an example. After the storm, the Chevron Pascagoula refinery was down, the Biloxi, MS distribution terminal was out of service, and terminals at Pensacola, FL, Niceville, FL, Freeport, FL, and Panama City, FL were all out of product. Even though the Mobile refinery was flooded and the production units were down, plant operators were able to get the facility's marine jetty and truck rack operating, making the Mobile refinery the only fuel supply for hundreds of miles for hospitals, power company crews, police, emergency responders, the National Guard, EMAs, and FEMA, as well as the motoring public.

For a period of several months after Katrina, the Mobile refinery was the sole supply source to cover Southern Mississippi, Lower Alabama and the Panhandle of Florida with vital fuel supplies. For close to a month after both Hurricanes Katrina and Ivan this was done with the refinery shut down. This would not have been possible without the timely arrival of supplemental supply in the form of 50,000-barrel shallow-draft tows from New Orleans and points West, as well as west bound tows carrying out intermediates to New Orleans.

In either scenario – with the Mobile plant down or in order to keep it operating – it is imperative that marine movements be able to get supplies into the market. Without reliable supplemental supply, recovery efforts would be much more difficult, and the level of impact on the motoring public would be much greater for a longer period of time.

Security of navigation in the GIWW is critical to the economic well being of the US Gulf States. The IHNC Lock is 85 years old. It is unreliable now, and it is likely that the lock will suffer extended down time for major maintenance action or replacement in the foreseeable future. If MRGO is closed to navigation, there needs to be a practical alternative route bypassing the IHNC Lock. The alternative route needs to be maintained until such time that the lock is replaced, or until reliability is improved through maintenance action.

Comments on Corps' Proposed Alternatives

The alternative routes proposed by the Corps are either impractical or are not sufficiently developed to ensure security of navigation:

1. Mississippi River to Baptiste Collette and into the Breton Sound and Chandeleur Sound thence up to the Mississippi Sound to rejoin the GIWW.

This route would expose tows to open water and is not suitable for inland equipment.

2. Mississippi River north to the Ohio and Tennessee Rivers to eventually join the Tennessee-Tombigbee Waterway, then South into Mobile Bay to rejoin the GIWW.

This route requires 250 hours of one-way transit time, over 5 times the one-way transit time from the Mississippi river to Mobile via the GIWW. For awareness, we tried to supply the region around Mobile via this route after Katrina, but found it to be impractical regardless of cost. Product would not have arrived in a timely manner, and the necessary inland tonnage was not available.

3. Mississippi River to Baptiste Collette Bayou and into Breton Sound and north up to the back retainer canal on the south side on the MRGO spoil area.

This route seems to be impractical because it would require significant dredging.

4. Mississippi River to Baptiste Collette Bayou, into Breton Sound, and north to Bayou La Loutre in Bay Eloi thence through Bayou La Loutre rejoining the MRGO channel on the inner side of the closure barrier, to rejoin the GIWW.

This route would also require significant dredging to allow for practical navigation.

5. Emergency removal of a portion of the rock total closure structure in the event of prolonged delays or inoperability of the IHNC Lock if authorization and funding are available.

This route might be practical if the barrier could be quickly removed. We encourage the Corps to pursue this alternative as a means to maintain authorized shallow draft navigation in emergency situations. We also suggest that the Corps consider modifying this alternative by closing MRGO with a removable gate or other device to facilitate ease of opening and closing, especially in difficult situations such as might occur in the aftermath of a hurricane.

Shell's Position

Similar to the position taken by the Gulf Intracoastal Canal Association, we do not contest the Corps' proposal to close the MRGO to deep-draft traffic, or even to regular shallow-draft traffic. However, the **MRGO should not be de-authorized to periodic emergency shallow-draft navigation until the IHNC lock is made more reliable or replaced, or until a practical alternative bypass route not involving the MRGO is established. Routine maintenance dredging of MRGO to provide for emergency shallow draft navigation should also be maintained.**

We urge more careful analysis of both alternative routes and consideration of the potential economic impacts associated with the recommendations made in the June LEIS.

The LEIS notes that Alternatives 1a-1d, which would have maintained shallow-draft navigation through the MRGO, were eliminated from further study based on economic analysis. Elimination of these alternatives raises significant concern that the lack of a practical and safe alternative to bypass the IHNC Lock during extended shutdown periods (3 days or longer) has not been properly considered. Specifically, it appears that this analysis did not consider the cost to Gulf Coast industry, the negative impact of supply disruption to consumers, and the disruption of supply of critical government services that occurs during an extended closure of the IHNC Lock.

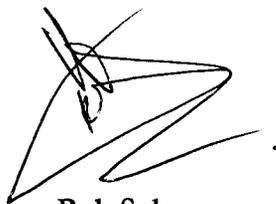
Appendix C of the LEIS (page C16) discusses the possibility of an authorized emergency access channel through a closure just downstream of Bayou La Loutre to provide temporary access for shallow draft traffic between the GIWW and the Mississippi River via the MRGO. We support more careful analysis of this alternative.

We thank you for your consideration of these inputs and welcome any discussion they may generate.

Sincerely,



Roger Barth
Global Marine Manager
Shell Chemical LP



Bob Salmon
General Manager Shipping
Shell Trading (US) Co.