



September 14, 2018

U.S. Army Corps of Engineers
Mobile District
ATTN: PD-F
P.O. Box 2288
Mobile, AL 36628

Re: Mobile Harbor Draft General Reevaluation
Report/Supplemental Environmental Impact Statement (Draft
GRR/SEIS)

To: U.S. Army Corps of Engineers, Mobile District:

This letter provides my public comments to the draft GRR/SEIS Widening and Deepening of the Mobile Navigation Channel. The announcement states that the SEIS will define the current environmental conditions and compare them with the environmental effects of any proposed action and its alternatives. The SEIS is then to identify potential consequences and the appropriate mitigation needed to minimize adverse impacts. "Since the Draft GRR/SEIS is the supplement to the original 1980 EIS, the Draft SEIS must address past, present and future impacts of the widening and deepening of the Mobile Ship Channel, which is related to the historical dredging and removal of sand from the littoral system and would be according to Corps policy and NEPA guidelines. The proposed Tentatively Selected Plan (TSP) **does not** address past, present and future impacts; it does leave Dauphin Island in a vulnerable and weakened state.

Dauphin Island dodged survived without excessive damage Hurricane Nate in 2017 and recently with Hurricane Gordon. Dauphin Island may not be so lucky the next time and may not be able to survive a Hurricane like Florence that is now striking North Carolina.

The Draft GRR/SEIS does not fully comply with §1508.25 of CEQ's NEPA Regulations because of the Corps' practice of "segmenting" Mobile Harbor Projects by preparing multiple separate NEPA documents. The Mobile District has decided to not include the SIBUA as part of the EIS, thus not looking at the totality of the project. These are not separate components and they should all be included of the GRR/SEIS. A Master Plan should be developed by the Corps of Engineers and the associated Environmental Impact Statement should identify all work required to expand and maintain Mobile Harbor, including the SIBUA for at least the next 20 years. Such a plan should include all existing, recommended, and proposed future disposal sites so the complete impact of the Mobile Harbor project is disclosed to the public as required by NEPA.

I attended the Corps Public Hearing on September 11th and after conversations with several Corps representatives, I am not convinced that the proposed SIBUA expansion will work. David Newell said that the depths of the extended SIBUA will be in waters 15 – 27 ft. deep. Other studies have said the depths should be less than 15 ft. to get sand to move into the littoral system. What this means to me is that sand will still accumulate and not move by wave action into the littoral sand system, therefore we will continue to have the same erosion problems. Also, my wife [REDACTED] asked David if the Corps would sign a document that says they will deposit the sand where they say that they will and if it does not work to look for other areas closer to the Island and in more shallow waters. There was no agreement to do this. If the Corps does not agree then how can we, the public, know that the Mobile District will do as they say. The Mobile District has not kept promises in the past. A credible agreement from the Mobile District is required so that the past does not happen again.

Just to re-state the past: The first SIBUA started in 1999 and sand accumulated so much that in 2009 the SIBUA was extended southward. Now it is 2018 and the southward extension has accumulated (note at the Feb 22nd town hall meeting, the Mobile District admitted that only 50% of the sand moves out of the SIBUA and into the littoral sand system) and the Corps is now proposing a Northwest extension of the SIBUA. We may not be any better off. We still have the problem of the historical sand loss since 1980 that needs to be replaced, and the Mobile District refuses to address this issue stating the Mobile District will only address the incremental impact to Dauphin Island as it exists today, even though the present draft GRR/SEIS is a supplement to the 1980 EIS when the Mobile District did not address the erosion on Dauphin Island. This is a failure of the Mobile District to follow Corps policy, NEPA guidelines and the 1935 Federal Law. As indicated in a May 30, 1997 Corps memorandum (enclosed) the Mobile District has the authority to consider alternatives.

In addition to the above, I believe the Corps is not following 40 CFR 1502.9 - Draft, final, and supplemental statements and that The Draft Statement is inadequate as has been presented above. The policy states when it (a) is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action.

Key to the above is the need to address the deficiency for the 1980 EIS and for the Mobile District to address the past historical loss of sand due to maintenance dredging, as well as truly locating the depositing of the dredged sands in an appropriate deposit location that is closer to Dauphin Island and more shallow waters of less than 15 feet of depth.

During several face-to-face meetings with the Mobile District, including with Colonel DeLapp, we have continually brought to the attention of the Mobile District that the original 1980 report/EIS completely ignored Dauphin Island's erosion problem and continues to do so. The GRR/SEIS is supposed to update the original 1980 report/EIS by analyzing changed conditions. Since the 1980 report (to 2009) there has been a tremendous amount of erosion of the Sand/Pelican Island complex and Dauphin Island, and approximately 25 million cubic yards of sand have been deposited into the Ocean DA and SIBUA and 20 million cy of that total has been removed the sand from the littoral system. This would represent a significant "changed condition" in not only the Study Area, but also the immediate Project Area since the Sand Island Beneficial Use Area (SIBUA) is the Corps' only designated disposal area to maintain the Bar Channel and is intended to bypass littoral drift sands to the west side of the channel to nourish Dauphin Island. Despite numerous public inquiries during the planning process, the Corps has never explained its refusal to address the enormous amount of erosion that has occurred to these islands. Instead, the Corps has chosen to ignore the 38 years of past shoreline erosion impacts that have produced today's significantly weakened Dauphin Island. The GRR/SEIS MUST address the 38 years of erosion that has occurred since 1980. I believe this proves without a doubt that the Corps' entire Study Process for the Mobile Harbor General Reevaluation Report (GRR) means the Corps, Mobile District, has already settled on how they planned to conduct the Study and what issues/concerns would be addressed and the resolutions to be reached. This would be regardless of the public's comments and correspondence the Mobile District has received over the past two years.

The 2009 Settlement Agreement that ended the Dauphin Island POA erosion lawsuit required the Corps to begin disposing of dredged sands in the Sand Island Beneficial Use Area (SIBUA). However, the Corps knew even as early as 2009 that sands were accumulating in the SIBUA instead of moving toward Dauphin Island as promised. Until the Corps can provide substantive proof the proposed SIBUA expansion will allow most of the placed sands to return to the littoral drift system to nourish Dauphin Island, the Corps would be violating the spirit and intent of the terms of the Settlement Agreement. Thus, one or more of the 1,700 Class members may be within their rights to challenge the Corps in court for failing to comply with the terms of the 2009 Lawsuit Settlement Agreement since the Corps failed to disclose to the Class that it knew in advance about the sand accumulation problem in the SIBUA.

As was recently stated at the Town Hall meeting, it is evident that the public does not accept the results of the Corps numerical modeling study results that allege maintenance of the Bar Channel does not contribute to the erosion of Dauphin Island. The rejection is based on the clear fact the model results do not match with the actual observed shoreline losses that have occurred since the early 1970s. The Corps admitted at the February 22, 2018 public meeting that the use of the Sand Island Beneficial Use Area (SIBUA) was preventing at least half of the sands that would naturally have been carried to Dauphin Island from reaching the island. In addition, Corps dredging records indicate that as much as 81% of the sands dredged from the Bar Channel since 1980-2009 have been lost from the nearshore littoral drift system because of the Corps practice of disposing of the valuable beach sands in deeper Gulf waters and SIBUA. These facts indicate the loss of millions of cubic yards of valuable beach quality sands due to unwise channel disposal practices has and continues to adversely affected Dauphin Island.

It is apparent, that the Public Scoping effort, the Public Open House meeting and the Town Hall meeting for the GRR/SEIS have been conducted without the Mobile District truly considering the public's concerns in defining how the Study would be conducted. Therefore, the Corps has committed a significant procedural error since it appears the Corps has already determined what would be (and would not be) investigated in the Study. In short, the Corps has ignored the public's concerns altogether and, in doing so contributed to potentially biasing the potential future outcome of the Study. This is exactly as we suspected the Mobile District would do.

In a July 16 e-mail to [REDACTED] Colonel Joly stated "...certainly understand the importance of learning from history and **fully expect** the team to provide [in the General Reevaluation Report (GRR) and accompanying Supplemental Environmental Impact Statement (SEIS)] **a cumulative impact analysis of past efforts and studies**". While Colonel Joly's stated expectation is consistent with the provisions of the Corps' procedural regulations governing the preparation of GRR reports and the Council on Environmental Quality's Guidelines for complying with the National Environmental Policy Act (NEPA), his stated expectation is totally inconsistent with what the Mobile District staff has told the public. The Mobile District on numerous occasions have stated the GRR and SEIS would only study the incremental impact of the dredging of the Outer Bar channel as Dauphin Island exists today and that is in a weakened state caused by years and years maintenance dredging and a loss of over 20 million cubic yards of sand from the littoral sand system that feeds Dauphin Island and the barrier islands in Mississippi. See enclosed Mobile Harbor Outer Bar Channel Dredging History (1980-2016).

Chapter 4, ¶4-1.b.(1) of ER 1105-2-100 (dated 2 Apr 2000) that deals with the preparation of GRRs requires a previously completed study to be reanalyzed "**due to changed conditions**" in the Study Area and the previous plan to be modified if appropriate. This Corps **planning requirement** is consistent with Colonel Joly's stated expectations expressed in his July 16 e-mail to [REDACTED]. However, it is in direct conflict with what his staff has consistently told the public the GRR would not address. In the intervening 38 years since the original feasibility report recommending the Mobile Harbor channel be deepened and widened was submitted to Congress in 1980, Dauphin Island has experienced significant erosion. Yet, the Mobile staff has repeatedly told the public that the GRR will ignore the island's historic erosion issue and will instead **only** analyze the effects of the channel enlargement on conditions as they exist today. The Mobile District's position is not only at odds with Colonel Joly's stated expectations, that position also does not comply with the Corps' planning regulations as identified above. Thus far, the Mobile District has failed to provide a trustworthy explanation as to why the GRR will not include an analysis of the historic erosion problem that certainly represents a major change in the conditions of the Study Area that has occurred since the 1980 report was prepared. One statement the Mobile District continues to make is that they don't have the authority to consider other alternatives. This is a false position. The Mobile District received approval from its higher authority in Atlanta in a May 30, 1997 Memorandum for Commander, South Atlantic Division (enclosed with this response).

It is important to understand the connection between Dauphin Island's erosion problem and the maintenance of the Mobile Harbor Outer Bar Channel. Maintenance dredging of the Outer Bar Channel captures essentially all the littoral drift sand moving west from the Fort Morgan peninsula according to internal Corps memoranda obtained through the Freedom of Information Act process. During the 38 years that have passed since the 1980 report was

completed, the western lobe of the Mobile Pass Ebb Tidal Delta Shoal has experienced significant erosion as evidenced by the steady disappearance of the Sand Island-Pelican Island Complex beginning in the early 1970s. The ongoing loss of the ebb tidal delta shoal is contributing to the erosion of Dauphin Island's Gulf shoreline, as well as to the steady loss of overall topographic relief of the island's West End.

To counter the erosion, which is attributed to the Corps' Outer Bar Channel maintenance practices in the above-mentioned reports, the Corps in 1999 began using the so-called Sand Island Beneficial Use Area (SIBUA) which the Corps continuously alleged would return the average annual quantity of 500,000 cubic yards of dredged beach quality sands to the natural littoral drift system. That has not occurred as evidenced by the continued erosion of the ebb tidal delta shoal and Dauphin Island's shoreline. That fact was substantiated by Justin McDonald, a Corps of Engineers, Mobile District expert, at the February 22, 2018 public town hall meeting when he acknowledged that half of the dredged sands placed in the SIBUA are accumulating in the SIBUA and not returning to the littoral drift system to nourish Dauphin Island's eroding Gulf shoreline. Based on Corps dredging records, since 1998 to 2009, a total of 9.6 million cubic yards have been placed in the SIBUA. That means since 1998, the Corps' channel maintenance program has robbed Dauphin Island of over 4.8 million cubic yards of sand that would have been delivered to the island by natural processes if not for the Corps' dredging operations.

Also, of importance, between 1980 and 1998 before use of the SIBUA began, the Corps dumped an additional 15 million cubic yards of beach quality sands in the deep waters of the offshore Mobile Ocean Dredged Material Disposal Site where those valuable and irreplaceable beach quality sands have been permanently lost from the nearshore littoral drift system. In summary, since 1980 the Corps channel maintenance practices have significantly contributed to starving Dauphin Island of over 20 million cubic yards of sand. Yet the Mobile District staff refuses to consider this significant historic impact in the GRR, a valuable resource never to be recovered, a loss that will increase in the future if the channel is enlarged.

THE TENTATIVELY SELECTED PLAN (TSP):

The draft SEIS states that the Mobile Harbor maintenance dredging has "no expected erosion or changes to the shorelines resulting from implementation of the TSP. The evaluations supposedly considered the probable effects on shoreline changes within 10 miles east and west of the channel and specifically the effect to Dauphin Island's shoreline." In addition, the document states: "This feasibility study includes: (1) survey of existing and future conditions; (2) evaluation of related problems and opportunities; (3) development of potential alternatives; (4) evaluation of alternatives; (5) comparison of costs, benefits, adverse impacts, environmental acceptability, and feasibility of those alternatives; and, (6) identification of a Tentatively Selected Plan (TSP). What this SEIS does not include or consider is the 1980 EIS that did not address the erosion of Dauphin Island (the study had only 20+ references to Dauphin Island and none about erosion) and therefore did not follow the 1935 Federal law about the effects dredging of the Mobile ship channel on the shoreline on 10 miles of both sides of the Channel. That means Federal Law, NEPA guidelines and Corps policy were not followed. The TSP must address the changes that have taken place since 1980 and deal with the historical sand loss that has occurred since that time. Per the Corps Mobile Bay Dredging History, the amount sand dredged from the channel that needs to be addressed is 20+ million cy that were deposited in the ODMDS and the SIBUA.

The statement "survey of existing and future conditions is unfortunately consistent with the statements made by Justin McDonald in meetings with the Mobile District that the Mobile Harbor Widening and Deepening project will only consider the incremental impact of the maintenance dredging on the Island as it exists today, and also with what David Newell, stated at the February 22nd Town Hall meeting in answer to the question David stated:

"...are we going to consider the sand that was taken away since 1980? So in 1999, we began to use the State of Alabama Use Area. So in 1986, authorization was required to be – for material to be taken offshore and deposited in ODMDS. Due to the 1999 use of SIBUA, **that was sand that was lost and** – in fact, if this study going to consider that sand loss and the effect of that lost on Dauphin Island? And the answer is it will not. The study, what it does—what it will do is look at the existing conditions of the

harbor, the width and depth currently, and we will assess from that existing conditions moving forward from today."

The statements by Justin McDonald and David Newell and the Mobile District in general verifies the true intention of the Corps of Engineers that they disregard the NEPA Guidelines and Corps policy, and the District is also disregarding Dr. Susan Rees statements at the September 2009 Fairness hearing when she stated " Today, the through-port and the port is vastly different from what it was in the late '80s, so there's **different economics** obviously, the cost of dredging and the placement of dredge material has changed significantly and the environment has changed. **And so we would have to take into consideration all of those aspects in preparing that general re-evaluation report.** And as far as the environmental compliance goes, because of the age of the original EIS we would have to do a supplement to that EIS."

Fairness Hearing: Dr. Rees also stated at the Fairness Hearing after being asked the following question by the government attorney:

Q. You mentioned that an environmental impact statement would be issued if there was any expansion over the current -- currently maintained dredging depths and width. Would that environmental impact statement examine the impact on Dauphin Island of any expansion?

A. It would definitely examine the impacts to the coastal processes of the entire region, not just Dauphin Island.

Q. But including Dauphin Island?

A. Definitely.

Note: The Court Recorder's transcription for Dr. Susan Rees, Corps of Engineers, concerning the above statements is enclosed.

At the Mobile District's February 22nd Town Hall meeting I asked Colonel DeLapp the following questions:

AN AUDIENCE MEMBER (See Mobile District's Transcription of the meeting): "I'm [REDACTED] And I'm kind of representing the west end property owners of Dauphin Island.... So, if we evaluate based upon existing conditions, property that is under water today will remain under water. Property that is sitting on people's shoreline, right up to their pylons will exist today and tomorrow, as David states.

"I want to carry us back to the fairness hearing and the statement that Dr. Susan Rees said when she testified at that hearing, under oath, and on behalf of the Corps as their expert witness. This was September 15, 2009. To settle the Dauphin Island Property Owners Association lawsuit -- that was the purpose of that hearing. During her sworn testimony, Dr. Rees stated that "A supplement to the original environmental impact statement would have to be conducted if there was any expansion to the ship channel." She said, "A general re-evaluation report would have to consider whether conditions in the study area had changed since the 1980s survey report was completed," and that's going back, which has been mentioned earlier. She also stated that "The GRR would definitely examine the impacts of expanding the channel to the coastal processes of Dauphin Island." My question is -- and there's a second part to it -- since Dauphin Island shoreline has continued to erode over the years after the 1980 survey report was completed, was Dr. Rees's testimony at the 2009 fairness hearing factually correct that a GRR/EIS is required to address changed conditions, or did she incorrectly state that? And in fact, her statement was not true, that the -- that the Corps is required to address the changed conditions. If Dr. Rees's testimony was correct, why is the GRR/EIS study ignoring the increased erosion of Dauphin Island shorelines that have occurred since that period of time?

Secondly, NEPA guidelines are involved and are in play, and it requires that the Corps document the impact of the maintenance dredging to ensure that environmental issues are considered and to also provide Congress as receiving recommendations with a sound basis for evaluating the environmental aspects of the Mobile Harbor. In fact, the 11th Circuit summarized the duty to supplement an EIS as follows: "If, after the original EIS is prepared, the agency makes substantial changes in the proposed action that are relevant to environmental concerns, or, if there are significant new circumstances or information relevant to an

environmental concern bearing on that proposed action as its impact, will the Mobile Harbor follow the NEPA guidelines and address the changed conditions and prepare supplemental EIS back to 1980? So those are the two questions. And I will be happy to leave this for you so that you can answer it."

COL. DeLAPP's reply to my questions about Susan Rees statements at the Fairness Hearing: "That would be appreciated. I mean, that's a lot. I was trying to take a couple of notes. But if you don't mind, I will probably follow up with you and answer specifically on that. I need to go back and look and see, you know, what her testimony was and what – and the like."

I have not received a response from Colonel DeLapp NEVER to my questions that I asked of him at the Town Hall meeting on February 22nd. I am therefore requesting the Mobile Harbor Widening and Deepening project team to provide and answer to my questions and to my questions to Colonel DeLapp about the statements that Dr. Susan Rees made at the 2009 Fairness Hearing. I am specifically asking that that the project team acknowledge whether or not Susan Rees statements are true or not.

Note: A copy of the Transcript of the February 22nd Town Hall meeting and a copy of the transcript for Susan Rees testimony at the Fairness Hearing is enclosed.

Colonel Sebastian Joly US Army Corps of Engineers, Commanding Officer, Mobile District: Colonel Joly in a July 18, 2018 e-mail commented to [REDACTED] that he "fully expects the team to provide a cumulative impact analysis of past efforts and studies. (emphasis added)" Based upon the draft report, the Mobile District is not fulfilling Colonel Joly's expectation/order. The Mobile District needs to provide a response why it is not following a duly authorized order/ or is it a command from the Commanding General. See e-mail below:

Note: Copy of Colonel Joly's e-mail to [REDACTED] is enclosed

REGIONAL SEDIMENT MANAGEMENT Program: The Regional Sediment Plan was not included in the Draft GRR/SEIS. Dauphin Island was an important component of the Regional Sediment Management Plan but was removed from the program for unknown reasons. It is expected that Dauphin Island was placed in a "black box" and removed from the plan as a result of the Corps of Engineers Lawsuit. From the RSMP website of November 17, 2003 it stated: "Currently the Mobile District and the Department of Justice (DOJ) have drawn a "black box" from the West end of Dauphin Island, north to the Mississippi Sound, east back to the ship channel, from which no information can or will be released. Sorry for the inconvenience."

As a result, such planning as indicated in the below meeting notes of a December 7, 2000 meeting Dauphin Island has been null and void since Dauphin Island is no longer a participant of this program. Dauphin Island should be allowed to participate again and if the RSM is not active, it should be re-instituted.

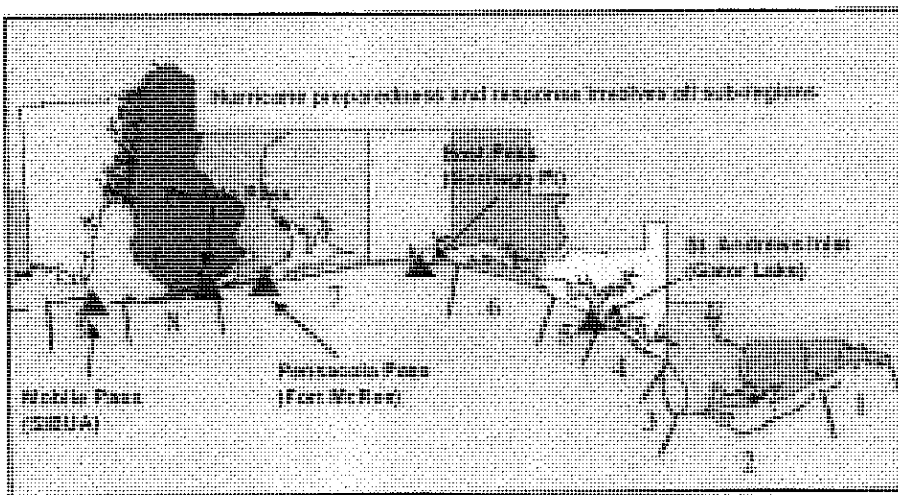
At this meeting of the National Regional Sediment Management Demonstration Program, the **POCs in attendance were:** Susan Rees CESAM-PD-EC, Larry Parson CESAM-PD-EC and Linda Lillycrop CESAM-EN-HH

PROGRAM GOALS: The goal of the Northern Mexico Regional Sediment Management Demonstration Program is to change the paradigm of project specific management focusing on a regional approach in which the US Army Corps of Engineers (USACE) in cooperation with other levels of government would stop managing projects and begin "managing the sand." The objectives of the demonstration program are:

DESCRIPTION OF REGION: The RSM the demonstration area established to represent the Northern Gulf of Mexico region (Figure 1) encompasses approximately 245-miles of coastal shoreline along the northern Gulf of Mexico bounded to the east by the Mobile District boundary at St. Marks River in the Florida panhandle and to the west by the western end of Dauphin Island in Alabama....

A main focus toward implementing the RSM goals and objectives is to identify and prioritize those projects and associated issues that can be addressed in a timely manner. In doing so, many of the primary issues and concerns can be quickly solved allowing for a rapid realization of regional management benefits

A main focus toward implementing the RSM goals and objectives is to identify and prioritize those projects and associated issues that can be addressed in a timely manner. In doing so, many of the primary issues and concerns can be quickly solved allowing for a rapid realization of regional management benefits. The experience gained from these initiatives can then be extended to other projects throughout the region and so on. Listed below with their locations illustrated in Figure 1 are six primary initiatives that have been identified by the TWG:



Mobile Pass (Sand Island Beneficial Use Area) - In the past O&M requirements and logistics dictated placement of dredged material from the Mobile Pass navigation bar channel outside the limits of littoral processes. Disposal of the material in such locations removes it from the local littoral system. Keeping the dredged material in the littoral zone requires placement in a location where natural processes are able to move the material to the adjacent downdrift shorelines. However, the Bay entrance channel, ebb tidal shoal (bar), adjacent shorelines, and all other components are all part of a large complex system that has potential impacts to the evolution of Sand Island and the eastern end of Dauphin Island. Of particular interest is to determine how sediment moves around the ebb shoal and affects the adjacent barrier islands and navigation channel shoaling. Understanding of this process is incomplete. Alternative placement of dredged material from the bar channel requires investigation and monitoring to determine optimum placement for the return to the littoral system.

STATUS: The Northern Gulf of Mexico RSM program is entering into its second year. Three Technical Working Group meetings were held to provide program, direction. Two CERB briefings were also given to inform the board of program status and obtain additional direction. Numerous other accomplishments have been achieved including a historical data search; a regional baseline consisting of hydrographic and topographic data, beach profile data, and aerial photography; development of regional Geographic Information System (GIS) by the Mobile District Spatia Data Branch to manage all of the data and information; initiation of a regional sediment budget to determine regional sediment migration and pathways; sub-regional workshops to inform and solicit involvement of local interests; and submittal of a proposal to investigate the benefits of using 1KONOS digital satellite imagery as a regional data collection tool. Also underway is the identification of economic and environmental benefits as a result of regional sediment management.

Note: Removing Dauphin Island from the RSM was an inappropriate action on behalf of the Mobile District, Dauphin Island should be reinstated and if the RSM is not active, it should be reinstituted.

Several points show that there are effects to Dauphin Island's shoreline that is caused by the maintenance dredging of the Mobile Navigation Channel:

SIBUA: FAILURE FOR DREDGED SANDS TO EFFECTIVELY MOVE INTO THE LITTORAL SAND SYSTEM:

- The Corps of Engineers has NOT provided adequate and qualified facts that the proposed Sand Island Beneficial Use Area (SIBUA) expansion to the northwest will be beneficial to Dauphin Island, but in fact THE PUBLIC BELIEVES IT will produce the same results that Justin McDonald, a Corps of Engineers expert, stated at the February 22, 2018 Town Hall meeting admitted for the first time that 50% of the sands dredged from the Outer Bar Channel and placed in the so-called Sand Island Beneficial Use Area (SIBUA) remains within the SIBUA site instead of being moved by currents to Dauphin Island as the Corps, Mobile District, has claimed occurred for the last two decades. Thus, half of all sands dredged and deposited in the SIBUA since 1999 have been effectively removed from the natural littoral drift system. That means, since 1999 to 2009, around 4.8 million cubic yards of naturally provided sands have been prevented from reaching and nourishing Dauphin Island's shoreline. That represents a significant cumulative loss of beach quality sands, which is contributing to the sand-starved nature of Dauphin Island and its observed erosion – **an impact that is made worse each time the Outer Bar Channel is dredged.**

This does not include the dredged sands that were historically dumped into the open Gulf prior to 1999 when the Corps began use of the SIBUA. Since the Corps 1980 EIS was released, there has been over 20 million cubic removed from the littoral system (See enclosed summary). Despite the Corps' acknowledgement that the Mobile Harbor widening, and deepening of the Mobile Navigation channel has created a sand deficit, the Corps has continued to state that there is no impact to Dauphin Island shorelines, and has not stated what it will do to mitigate the erosion problem. The Mobile District must take appropriate action to mitigate the erosion of Dauphin Island's shorelines as required of the NEPA process and the Corps policy guidelines. As a requirement since this GRR/SEIS, which is a supplement of the original 1980 the Mobile District the Corps is mandated and obligated to study the past, present and future impact of the shoreline.

- Based on the Corps' admission that the so-called SIBUA is failing to meet its intended purpose which is contributing to the erosion of Dauphin Island, the Corps must include in the Mobile Harbor GRR an appropriate mitigation plan to compensate for at least 4.8 million cubic yards of beach quality sands that, since 1999 to 2009, have been removed from the littoral drift system, representing a direct project impact that has significantly contributed to the erosion of both Sand and Dauphin Islands. Further, the Corps' admission also gives credence to the 1978 Corps report that first concluded maintenance of the Outer Bar Channel contributed to Dauphin Island's erosion. The Corps has consistently refused to address in the GRR Study the effects of the cumulative removal of around 20 million cubic yards of sand from the littoral drift system that has occurred since 1980 to 2009 due to maintenance of the Outer Bar Channel. In view of its February 22 admission, and the depositing of dredged sand to the Open Gulf and the accumulation of sand in the SIBUA, the Corps has no credible reason to continue advocating its present position and should begin immediately to develop appropriate mitigation remedies that should be addressed in the Draft GRR to respond to this now acknowledged significant "changed condition" in the Study Area.
- Since 1999, when the Corps started to place the dredged sand in the SIBUA, the Corps has produced no scientific studies or monitoring systems to support its long-held contention that the sand placed in the SIBUA reenters the littoral drift system to nourish DI. The Corps has continued to make statements and promises about the beneficial functioning of the existing SIBUA, but actual events indicate this is not

occurring since DI is continuing to erode at unprecedented rates and the deposited sand has accumulated to the point that it was necessary to extend the boundary of the SIBUA first in 2008 south and southwest to provide sufficient depth for the hopper dredges to continue to operate and now the Mobile District wants to deposit the dredged sand in an extension of the present SIBUA north and west. Again, this is because the deposited sand has accumulated in the SIBUA and is not re-entering the littoral system.

1980 ENVIRONMENTAL IMPACT STATEMENT: The GRR/SEIS Study must correct the flawed 1980 report. The Corps' 1980 EIS neither investigated the influence of maintaining the Outer Bar Channel (at the dimensions that existed at that time) on the erosion of Dauphin Island, nor the potential of the recommended channel enlargement to further influence erosion of the island.

Under separate authority, a Corps report was completed in 1978 addressing the Dauphin Island beach erosion problem. The 1978 report concluded maintenance of the Mobile Harbor Outer Bar channel contributed significantly to the island's erosion problem. That report stated that "...since deepening the bar channel in 1966, maintenance dredging of the channel has resulted in the removal of about 264,000 cubic yards of per year (cy/y)..." of sands that are permanently lost from the littoral drift system instead of being transported to Dauphin Island. The report estimated that the annual loss of this volume of sands due to maintenance of the Outer Bar Channel could have been responsible for the recession of about 119 feet of the island's shoreline since 1939. Further, "...considering maintenance dredging since 1966, the average loss of shoreline width per year attributable to maintenance dredging of the outer bar would be about 4.6 feet per year." Based on these erosion loss rates, the report "...surmised that the removal of 264,000 cy of material per year from the outer bar *has a significant effect on the shoreline of the western part of Dauphin Island* [emphasis added]".

Although the 1980 report recommended the Outer Bar Channel be enlarged, it failed to acknowledge the existence of the 1978 report; it failed to consider the 1978 report's conclusions that maintenance of the channel was contributing to the loss of sand from the littoral drift system and the erosion of Dauphin Island; and it failed to investigate the potential effects that an enlarged channel could have on the island's erosion problem. Since these two reports were separated by only two years, it is disconcerting that the 1980 report did not investigate the 1978 identified connection between maintenance of the then dimensions of the Outer Bar Channel and Dauphin Island's erosion problem, and how deepening and widening the channel could further influence erosion of the island. Since that flaw in the 1980 report has never been corrected, that deficiency must be corrected in the present Mobile Harbor Widening and Deepening Project Study (GRR/SEIS). Failure to address this issue will have disastrous consequences for Dauphin Island and the protection that Dauphin Island, as Alabama's only barrier island, provides for important habitat in the Mississippi Sound and the protection it provides for Mobile County and acts as the lead island in the Alabama Mississippi barrier island chain.

The 1978 report contained letters dated July 9 and 21, 1975 in which the Mobile District Commander made the following commitment for the 1980 report:

"The prospect for satisfactorily alleviating erosion problems on Dauphin Island by depositing the sandy material dredged from the Mobile Bay entrance channel upon the Gulf shoreline of the island appears promising and will be pursued [emphasis added]. The viability of depositing future "new work" material dredged from the ship channel within Mobile Bay upon the western shoreline cannot be determined without estuarian [sic] and other environmental impact studies but is considered meritorious of further consideration. Under the above concepts the eroding shorelines would be nourished by the dredged material primarily as disposal areas in support of the maintenance and modification of the Mobile Harbor navigation project [emphasis added]. This plan would preserve any accreted land as the property of adjoining land owners and limit local costs resulting from the accreted land, to the amount required for necessary stabilization and a portion of the cost allocated to land enhancement. Therefore, the options for nourishment of the eroding shorelines with material dredged from the ship channel would be more

appropriately considered under our ongoing study of navigation modifications for Mobile Harbor
[emphasis added] rather than under the study for beach erosion control and hurricane protection

As demonstrated in the following excerpt from the Mobile County Commission's October 1, 1975 response, the Corps' commitment planted the expectation that Dauphin Island's erosion problem would be addressed in the 1980 report:

"We also feel your consideration of the deposition of the dredged material from the ship channel along the eroding shorelines is definitely a necessary part of the survey study for modifications of the existing Federal project for Mobile Harbor"

Despite the Corps commitment and the resulting public expectation, the 1980 report did not investigate the Dauphin Island erosion issue. A total of 1,136 pages comprise the pdf copy of the 1980 report package. A word search of the entire document for "Dauphin Island" revealed those two words occur in tandem at only 55 locations throughout the total report. Examination of the 55 occurrences reveal 46 of the locations have nothing to do with the erosion issue. That means in the entire 1,136-page 1980 report, the Dauphin Island erosion problem is "mentioned" only 9 times. After considering the entire context of the brief discussions at each of those 9 locations, it is incontrovertible that the 9 locations merely "recognized" the existence of the Dauphin Island erosion problem and that an adequate in-depth "investigation" of the erosion problem was not conducted. The failure of the 1980 report to not address the highly pertinent conclusions on the erosion issue contained in the 1978 report represents a total lack of reasonable diligence and undermines the overall integrity of the 1980 report and a failure to follow appropriate NEPA guidelines.

The 1980 report is also flawed in that it did not comply with specific agency mandated study requirements. Paragraph 3-2b(1) of ER1105-2-100 requires:

"...pursuant to Section 5 of the River and Harbor Act of 1935, each investigation on navigation improvements potentially affecting adjacent shoreline will include analysis of the probable effects on shoreline configurations. A distance of not less than ten miles along the shore on either side of the improvement should be analyzed."

That distance requirement is also stressed in paragraph 5-3d in the Corps' EM 1110-2-1613 entitled "Hydraulic Design of Deep Draft Navigation Projects":

"...The planner/designer is required to study and develop predictions of erosion and accretion for a distance of 10 miles on either side of an entrance channel improvement project."

These two Corps regulations clearly require the effects of enlarging the Mobile Harbor project on shorelines *shall* be investigated for 10 miles on either side of the Mobile Pass Inlet. The 10-mile design requirement has its roots in Section 5 of the Rivers and Harbors Act of 1935, as well as the universally observed fact that engineering works (including dredged navigation channels) in ocean inlets typically interrupt natural littoral drift processes, causing erosion and/or accretion of the adjacent shorelines. The 10-mile requirement was in effect at the time the 1980 report was prepared. However, the 1980 report failed entirely to investigate the potential effects of the recommended channel enlargement on the adjacent shorelines on either side of Mobile Pass, including Dauphin Island, of the channel, as pointed out in many of the recent Public Scoping comments^{5/}. The Study must correct that outstanding deficiency by including an investigation of the effects of maintaining the Outer Bar Channel on the erosion of Dauphin Island for both the "without project" (i.e. "No Action") and "with project" alternatives.

The Corps states in the Draft GRR evaluations that they have considered the probable effects on shoreline changes within 10 miles east and west of the channel and its effect on Dauphin Island. This would be an untrue evaluation because of the stated position of the Mobile district: In meetings with the Mobile District that I and others attended Justin McDonald made statements that the Mobile Harbor Widening and Deepening project will only consider the

incremental impact of the maintenance dredging on the Island as it exists today; and David Newell, at the February 22nd Town Hall meeting, in answer to the question "...are we going to consider the sand that was taken away since 1980? He stated: "The study, what it does—what it will do is look at the existing conditions of the harbor, the width and depth currently, and we will assess from that existing conditions moving forward from today."

The Council on Environmental Quality's (CEQ) Regulations (see 40 CFR § 1502.9(c)(1))^{11/} require federal agencies to prepare a SEIS if:

- "(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
- (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."

Since the erosion of Dauphin Island attributed to maintenance of the Mobile Harbor Outer Bar Channel was not investigated in the 1980 EIS and has continued unabated throughout the intervening 38 years, the erosion problem represents a significant **"new circumstance"** that must be addressed in the Study SEIS. Further, the erosion issue is both relevant to and has a direct bearing on any proposal to enlarge the Mobile Harbor channel.

The current Study presents the Corps with the opportunity to correct the flawed 1980 report. The flaw can be corrected by recommending that Section 302 of the WRDA of 1996 (PL 104-303) be applied to develop a beneficial use alternative **for both new work and maintenance dredged sand** from the Outer Bar Channel to rectify the Dauphin island erosion problem. Section 302 specifically amended the original 1986 authorization" to widen and deepen Mobile Harbor and serves as the partial authority under which the Study is being conducted. The complete wording of Section 302 is repeated as follows:

"In disposing of dredged material from such project [i.e., widening and deepening Mobile Harbor], the Secretary, after compliance with applicable laws and after opportunity for public review and comment, may consider alternatives to disposal of such material in the Gulf of Mexico, including environmentally acceptable alternatives for beneficial uses of dredged material and environmental restoration."

This language gives the Corps the discretion to consider environmentally acceptable alternatives to disposal in the Gulf, "...including beneficial uses of dredged material and environmental restoration". An obvious beneficial use of the beach quality sands dredged from the Outer Bar Channel would be to place them on Dauphin Island. Such an action is also consistent with Chapter 220-4-.09(11) of the State of Alabama Administrative Code" which requires "...to the maximum extent feasible, all beach compatible dredge materials taken from the tidal coastal system shall be placed on beaches or within the nearshore sand system".

As pointed out in paragraph 3-2b(6) in the Corps' ER 1105-2-100, an additional authority is available to address Dauphin Island's erosion problem. That authority is based upon Section 145 of the WRDA of 1976, as amended. The entire referenced paragraph is provided below:

"Placement of Dredged Materials on Beaches. Construction and maintenance dredging of Federal navigation projects shall be accomplished in the least costly manner possible. When placement of dredged material (beach quality sand) on a beach is the least costly acceptable means for disposal, then such placement is considered integral to the project and cost shared accordingly. When placement of dredged material on a beach costs more than the least costly alternative, the Corps may participate in the additional placement costs under the authority of Section 145 of the WRDA of 1976, as amended. The additional cost of placement may be shared on a 65 percent Federal and 35 percent non-Federal basis if: (1) requested by the State, (2) the Secretary of the Army considers it in the public interest, (3) the added cost of disposal is

justified by hurricane and storm damage reduction benefits and (4) the shoreline on which the material is placed is open to public use."

To date, the Corps has refused to answer public inquiries as to whether the Study will evaluate an alternative to beneficially use dredged material in accordance with either Section 302 or Section 145 to ameliorate Dauphin Island's erosion problem. The Corps' silence to the public inquiries fosters the concern that the Corps does not plan to consider such a beneficial use alternative. The Corps owes the concerned public a rational explanation as to if the Study will consider the potential application of these two existing authorities.

CEQ regulations require the significant impacts related to the proposed action be analyzed in the Study SEIS. In that regard, 40 CFR § 1508.25 defines "scope" to consist of the range of actions, alternatives, and impacts, with 40 CFR § 1508.8 requiring both direct and indirect effects be considered, and 40 CFR § 1508.7 requiring "cumulative impacts" be assessed that result "...from the incremental impact of the action when added to other *past, present, and reasonably foreseeable future actions* [emphasis added] regardless of the..." source of the impacts.

To correct the flawed 1980 report, the Study must assess the impacts of Dauphin Island's historical sand deficit attributable to maintenance of the Outer Bar Channel dating back to at least 1980. During the subsequent 37 years, maintenance of the Outer Bar Channel has further contributed to the erosion of Dauphin Island. For example, the amount of beach quality sands removed from the littoral drift system between 1980 and 2009 is depicted in Table 1 which was prepared from Corps dredging data. Over that period, a total of 24,918,514 cubic yards were removed by a combination of new work and maintenance dredging, of which 14,672,078 cubic yards were disposed in deep Gulf waters and permanently lost from the littoral drift system and the remaining 9,600,347 cubic yards placed in the Sand Island Beneficial Use Area (SIBUA) to the south of Dauphin Island. In the absence of Corps dredging data for the period after 2009, an average annual maintenance volume of 503,000 cubic yards per year was assumed to have been placed in the SIBUA each year since 2009. Based on that assumption, an additional 3,523,698 cubic yards of dredged sand could have been placed in the SIBUA since 2009 to the present. The Corps has provided no data to support its contention that dredged sands placed in the SIBUA are transported to Dauphin Island. In fact, the Corps no monitoring system to support its position that the SIBUA is beneficial to Dauphin Island. This is confirmed in **an article in Climate Wire, July 18, 2014, when Pat Robbins**, a spokesman for the Army Corps of Engineers district office in Mobile, said the agency does in fact place dredged sand in a "beneficial use area" south and east of Dauphin Island, where it can migrate through currents to sand-starved beaches. But the Army Corps has no formal monitoring program to ensure that the sand is reaching its intended targets. Asked whether Dauphin Island was being aided by the Army Corps' dredge operation, Robbins said, "Parts of it are, parts of it aren't. That's just typical of barrier islands."

Note: A copy of Pat Robbins statement in Climate Wire is enclosed.

The Study's baseline conditions must consider the historical erosion of Dauphin Island and the cumulative losses of millions of cubic yards of beach quality sands that have occurred since the 1980 report. If no action is taken to restore the natural volume of littoral drift sand crossing the Mobile Pass Inlet upon which Dauphin Island depends, the island will continue to erode, whether the channel is enlarged or not. It would be a grievous error should the Corps attempt to establish baseline conditions as those that define Dauphin Island in 2016 when the Study was "formally initiated". That approach would perpetuate the 1980 report flaw by continuing to ignore the role maintenance of the Outer Bar Channel contributes to the erosion of Dauphin Island. Such an approach would violate provisions of the CEQ regulations requiring the cumulative impacts of past actions be assessed with those of the proposed action and will result in the preparation of a deficient SEIS.

CEQ regulations also require that mitigation measures be identified to avoid, minimize, rectify, reduce, or compensate for significant environmental impacts attributed to a federal action (see 40 CFR § 1508.20). The CEQ also issued guidance to federal agencies in 2011 addressing the inclusion of mitigation in project design:

"Mitigation measures included in the project design are integral components of the proposed action, are implemented with the proposed action, and therefore should be clearly described as part of the proposed action that the agency will perform or require to be performed. Consequently, the agency can address mitigation early in the decision-making process and potentially conduct a less extensive level of NEPA review".

Paragraph C-3e in the Corps' ER 1105-2-10e describes the overarching goal as to how the significant adverse impacts of Corps projects are to be mitigated. The opening discussion states:

"District commanders shall ensure that project-caused adverse impacts to ecological resources have been avoided or minimized to the extent practicable, and that remaining, unavoidable impacts have been compensated to the extent justified [emphasis added]. The recommended plan and the NED plan, if not one in the same, shall contain sufficient mitigation to ensure that either plan selected will not have more than negligible adverse impacts on ecological resources (Section 906(d), WRDA'86). Any such mitigation measures will be fully justified."

Since the 1980 EIS **did not** address the erosion of Dauphin Island and its relationship to the maintenance of the Outer Bar Channel as reported in the Corps' separate 1978 report, the original EIS would have been judged to have been deficient because of its silence on the erosion issue if it had been the subject of a NEPA based lawsuit. The 1980 report also failed to comply with Section 5 of the 1935 River and Harbor Act which requires:

"Every report submitted to Congress in pursuance of any provision of law for preliminary examination and survey looking to the improvement of the entrance at the mouth of any river or **at any inlet**, in addition to other information which the Congress has directed shall be given, **shall contain information concerning the configuration of the shore line and the probable effect thereon that may be expected to result from the improvement having particular reference to erosion and/or accretion for a distance of not less than ten miles on either side of the said entrance.**"

This provision of the 1935 law remains in effect today and is major requirement of the Corps' engineering and design requirements for all projects occurring within inlets like the Mobile Pass through which the Mobile Harbor project passes.

The Mobile District is conducting a separate study of the SIBUA. In 2008, the Mayor of the Town of Dauphin Island requested that the Corps of Engineers, Mobile District, to change the deposit location of sand to the north of the SIBUS, but instead, the Mobile District expanded the SIBUA south and southwest to accommodate depositing of the dredged sands from the Mobile Ship Channel. This study should not be a separate study of the disposal area but instead include that important disposal study in the ongoing GRR.

- The 1980 Environmental Impact Statement was supposed to address Dauphin Island Erosion, but never did. It did not follow NEPA guidelines nor did it follow the 1935 Law
- At the February 22, 2018 Town Hall meeting, the Corps expert, Justin McDonald, stated that the Mobile District will only address the incremental impact of the widening and deepening of the Mobile Navigation Channel as it exists today. That position is counter to the requirement that this is the supplemental environmental impact statement for the 1980 EIS that did NOT address the impact of dredging of the Mobile Navigation Channel to Dauphin Island's shoreline. The 1935 Federal Law
- To reduce the costs of maintaining the ship channel, the Corps plans to resume the practice of disposing sediments dredged from the Bay Channel into the open waters of Mobile Bay. However, the Corps did not elaborate on what the potential impacts of such disposal could be on biological communities such as oyster reefs.

SECOND ADDENDUM TO THE SETTLEMENT AGREEMENT: The Property Owners Association is a participant of the Second Addendum to the Litigation Settlement Agreement that terminated the 10-year class action lawsuit between the POA and the US Government & Alabama over the Dauphin Island erosion issue. I am a participant of that lawsuit having Opted-in to the lawsuit. I am also a past member of the Dauphin Island Property Owner's Board of Directors who participated in multiple meetings with the Mobile District. The decision to Opt-in was based facts provided by the Corps of Engineers, Mobile District, that I believe upon was untrue information, which is evident today by the admission of the Corps at their February 22, 2018 Town Hall meeting and the 2007 RSM minutes provided with these comments:

- a. The Second Addendum to the Settlement Agreement was entered on August 14, 2009, and subsequently upheld by the Court in its final order by the Judge on November 24, 2009. The Second Addendum requires the Corps of Engineers "...to deposit material dredged from the Outer Bar Channel in the SIBUA and/or the Feeder Berm Disposal Area (the "alternate disposal areas"), *subject to...*" five different caveats, anyone of which could negate the future use of the SIBUA. Of the five specified caveats, the two listed below are directly relevant to the present situation in view of the Corps' admission at the February 22nd public meeting. I believe the Corps of Engineers is in violation of these sections of the Agreement because the Second Addendum states: "... *provided however* that for the purposes of (and in furtherance of) this Second Addendum...the Parties to the Litigation agree that this Second Addendum will bind and be a compromise and resolution in all respects of the claims of all members of the class"
- (iii) currently unforeseen negative consequences from repeated use of these alternative disposal areas are discovered;
- (v) identification and authorization by the Corps of an area more beneficial to Dauphin Island.

The Corps of Engineers must comply with caveats (iii) and (v) and identify a new disposal site within which beach quality sands dredged from the Mobile Harbor Outer Bar Channel **shall** be placed at a deposit area that is "more beneficial" to Dauphin Island. That mandatory change in the present disposal practices must be implemented to assure dredged sands are effectively bypassed across the Outer Bar Channel to be reincorporated into the natural littoral drift system. The Corps can identify an appropriate new disposal site for the beach quality sands under the existing authority provided by Section 302 of the Water Resources Development Act of 1996, including adjustment of the Mobile Harbor Federal Standard as already directed by Corps higher authority in its May 30, 1997 letter to the Mobile District. See enclosed South Atlantic Division letter of authorization.

Note: Copy of Second Addendum to the Settlement Agreement is enclosed.

STUDIES USED FOR THE MOBILE HARBOR DRAFT GRR/SEIS: The Corps of Engineers has based its entire draft GRR/SEIS study on a single study: The Mark Byrnes 2010 Study, which is actually his 2008 Dauphin Island Property Owners vs Corps of Engineers Lawsuit study that was updated to become the 2010 Study. In fact, the 2010 has now been updated to be the 2012 Byrnes study. The Corps has declared the 2010 Byrnes Study as the baseline study for the draft GRR/SEIS. As the Mobile BayKeeper stated in their comments: The Corps is using one study, Mark Byrne's 2010 study, as the "base for a number of studies.... This limitation of data could cause the impact from the proposed project to be underestimated. The draft report also continues to state: "Results and conclusions for sediment transport considerations predicted **no discernable impacts to sediment transport throughout the project area and no expected erosion or changes to the position of the Mobile Bay shorelines** resulting from implementation of the TSP. The evaluations considered probable effects on shoreline changes within 10 miles east and west of the channel and predicted minimum difference in bed level changes on the ebb tidal shoal that feeds Dauphin Island." This continues to be on the absurd.

The Corps Mobile District has continued to leave out and not acknowledge for the public a very pertinent fact that was presented in the Final Order for the Settlement of the Corps of Engineers Lawsuit. In the Final Order it is

stated: "On January 10, 2008, as required by the Settlement Agreement, the Final Report was submitted by Dr. Byrnes. The Final Report determined "that the Corps' construction, operation and Maintenance Dredging Practices of and at the Channel have not resulted in at least Minimum Measurable Erosion of Dauphin Island's shoreline." **See Settlement Agreement ¶ 3(f). Plaintiffs' expert, Dr. Dean, dissented and indicated that the Final Report was fundamentally flawed, not reliable and at best inconclusive.** (Emphasis added). Dr. Dean also made this same conclusion in his final review of March 7, 2008: "...Thus, I respectfully dissent from concurring "that the Corps' construction, operation and Maintenance Dredging Practices of and at the Channel have not resulted in at least Minimum Measurable Erosion of Dauphin Island's shoreline."

Dr. Dean also stated: "I conclude that certain critical portions of the Final Report (Dr. Byrnes report) are arbitrary in their methods of analysis and acceptance/interpretation of the available data resulting in uncertainty remaining in the final results. These issues were documented in my written review of September 30, 2007 of the Draft Final Report and, in accordance with Paragraph 3 (f), of the LSA, the "detailed reasons" are provided again in the following sections with due consideration of the Final Report and responses provided by ACRE to my earlier review of the Draft Report...."

Further comments made by Dr. Dean include:

"In discussing shoreline change analysis (Page 44): "Substantial effort was spent ensuring that any systematic errors were eliminated prior to change analysis. Therefore, measurement errors associated with present and past shoreline surveys are considered random."

In discussing bathymetric errors, a similar statement appears on Page 192: "Substantial effort was spent ensuring that any systematic errors were eliminated from all data sets prior to change analysis. As such, measurement errors associated with present and past surveys are considered random. Because random errors are equally distributed, they can be neglected relative to change calculations."

Dr. Dean stated: "In my experience, these are unacceptable assumptions/considerations. Because such large plan areas (ebb tidal shoals) are considered here, any bias becomes of critical significance in volumetric determinations." (emphasis added)

Furthermore, Dr. Dean stated in his final review: "In regard to "The difficulties of determining accurate vertical control even for recent surveys is exemplified by the necessity of eliminating the 2002 survey from consideration in the Final Report (Page 179):

"However, the USACE 2002 bathymetric data were determined inadequate for computing a sediment budget because procedures associated with reference datum adjustments could not be verified accurately"

My review of the Draft Report suggested methodology that would at best, resolve or reduce uncertainties substantially, and at worst, illustrate that a problem still remained, in datum adjustments to historical and modern data. Results from the suggested methodology would have been quite informative"

NOTE: The Mobile District continues not even reflect in a footnote that there was a dissent to the Byrnes study, yet the Corps continues to offer this one study as the basis for its conclusions that there dredging of the Mobile Ship Channel does not cause erosion to Dauphin Islands shoreline.

In addition, the Mobile District has continued to not include or agree that other esteemed coastal engineers such as **Robert Morton** had conducted important studies about the Alabama-Mississippi Barrier Islands. Dr. Morton in his **2007 Study: Historical Changes in the Mississippi – Alabama Barrier Islands and the Roles of Extreme Storms, Sea Level Rise and Human Activities** stated "The principal causes of barrier island land loss are frequent intense storms, a relative rise in sea level, and a deficit in the sediment budget. The only factor that has a historical trend that coincides with the progressive land loss is the progressive reduction in sand supply associated with the nearly simultaneous deepening of channels dredged across the outer bars of the three tidal inlets maintained for deep-draft shipping....

The reduction in sand supply related to disruption of the longshore sediment transport system is the only factor contributing to land loss that can be managed directly. This can be accomplished by placing dredged material so that the adjacent barrier island shores receive it for barrier island nourishment and rebuilding.”

Historical Changes in the Mississippi-Alabama Barrier Islands and the Roles of Extreme Storms and Sea Level and Human Activities by Robert Morton, U.S. Geological Survey

By Robert A. Morton

U.S. Geological Survey

U.S. Geological Survey

Coastal and Marine Geology Program

Open File Report 2007-1161

U.S. Department of the Interior

U.S. Geological Survey

The Mobile District used this as part of their factors for approval of the Mississippi Coastal Improvement Plan, but the Mobile District does not include this view in the Alabama GRR/SEIS because it disputes their position about dredging not causing erosion of Dauphin Island’s shoreline.

ENDANGERED SPECIES ACT/HISTORICAL PRESERVATION ACT:

Endangered Species Act: The Corps maintenance dredging of the Outer Bar that has resulted in the erosion of Dauphin Island’s shoreline and as a result, it has affected the habitat of the sea Turtle. The Corps of Engineers is in violation of the Endangered Species Act of 1973 that provides conservation of species that are endangered and in one specific case that involves the sea turtle. Another in fact is that Alabama signed a Cooperative Agreement on November 8, 2010 with the NOAA Fisheries under section 6 of the Endangered Species Act and would be complicit in this problem.

Over the past 38 years, the Corps of Engineers has been responsible for over 20 million cubic yards of sand that has not entering the littoral sand system and therefore has not reached the Dauphin Island shoreline. As a result, there has been excessive erosion which has affected the nesting areas of the sea turtle and therefore is no protection for the sea turtles. The Corps of Engineers GRR/EIS mitigation plan must address this important environmental issue as well as the erosion of Dauphin Island’s shoreline. As the enclosed article indicates, the female sea turtle returns to the proximity of where they were born to lay their eggs. Since the Corps project plan, for widening and deepening the Mobile ship channel, will only evaluate the effects of the disposal alternatives considered for Dauphin Island shoreline as it exists today, an eroded shoreline; we can only expect the same results for the sea turtles; no place to truly and safely return to their nesting area. This critical issue MUST also be addressed in the Corps Mitigation Plan for Dauphin Island and therefore I am asking that the Corps of Engineers produce a mitigation plan that addresses this environmental issue

Historic Preservation: The **Sand Island Lighthouse** is historically registered and is listed on the Lighthouse Digest Doomsday List, as one of the most endangered lighthouses in the country. This 1873 tower is considered the last great masonry lighthouse to be built on the Gulf Coast. The lighthouse is now owned by the town of Dauphin Island. The Corps of Engineers has guidelines for Compliance with Section 106 of the Historical Preservation Act that determines the requirements the Corps of Engineers need to follow. Section 106 of the National Preservation Act, as amended by (NHPA), requires Federal agencies to take into account the effects of their undertakings (such as the Mobile Harbor Widening and Deepening Project) on Historic Properties. Since the Sand Island Lighthouse is a historical landmark, the draft GRR/SEIS must address the impacts of the Corps maintenance dredging and new work dredging on the lighthouse. The Draft GRR/SEIS is void of any reference to any impacts to the lighthouse or how the GRR/SEIS will mitigate for any impacts. The Draft GRR/SEIS must address the impacts of their maintenance dredging and new work on the Sand Island Lighthouse.

IMPORTANT FACTORS AND RECOMMENATIONS THAT THE CORPS OF ENGINEERS, MOBILE DISTRICT MUST ADOPT:

1. The natural Littoral System moves the sand near the shore from east to west, while the waves take this sand ashore. The problem is that this "river of sand", as it heads west, falls into the Mobile Ship Channel. It essentially drops into a 45-foot-deep hole and cannot move further west to Dauphin Island. This is the cause of the sand deprivation on the south side of Dauphin Island.
2. This loss of sand is supposed to be replenished by the dredging that the Corp does on a regular basis. The Corp dredges the sand out of the Mobile Ship Channel in order to maintain its depth and should be depositing this dredged sand at a point reasonably near to Dauphin Island in relatively shallow water so that the currents pick it up and move it to the southern shore of Dauphin Island.
3. The Corp has since 1999 been dumping this dredged sand in the SIBUA, where the depth is 27 feet deep or deeper. The Corp announced at a February 22nd town hall meeting that half of the sand deposited in the SIBUA area (approximately 4.9 million cubic yards of sand) has not reached Dauphin Island. The reason is that the water at the SIBUA area is too deep for the currents to pick it up and carry it to shore. Since 1980 a total of 20+ million cy of dredge sand does not enter the littoral system. The lost sand must be replaced.
4. The Corp announced in the draft GRR/SEIS that they were going to move the dump site to a new location, but, the new site is adjacent to the old site and is in water 15 – 27 feet. Moreover, experts are also of the view that the water depth should be less than 15 feet in order to ensure that the bulk of the sand deposited would be picked up by the currents and moved to Dauphin Island. Obviously, the new site chosen by the Corp will not correct the problem, which will only grow worse if the ship channel is widened and deepened.
5. The Corps of Engineers, Mobile District, MUST recognize the 1978 study.
6. The Mobile District must recognize in the draft GRR/SEIS that it is a supplement of the 1980 EIS and must address the changed conditions to include past, present and future. It must also recognize the 1980 EIS was deficit in addressing the erosion of Dauphin Island shoreline, did not follow NEPA guidelines, Corps of Engineers policy guidelines and the 1935 Federal Law. The Corps must address the lost of 20+ million cy of sand that have been deposited either in the Ocean DA or SIBUA that has not entered the littoral system. This loss of a valuable resource that would have nourished the shoreline of Dauphin Island must be addressed and deposited on the shoreline of Dauphin Island.
7. The Mobile District must accept the fact that the May 30, 1997 Corps of Engineers, South Atlantic Division, memorandum has given the Mobile District the authority to develop and an alternative and may consider alternatives to disposal of dredged material from the Mobile Harbor including environmentally acceptable alternatives for beneficial uses of dredged material and environmental restoration.
8. The Mobile District has to address the fact that they violated, as a participant of the Corps Lawsuit, two key sections of the 2nd Addendum to the Settlement Agreement in Item 5d of the agreement:
Item 5d of the Second Addendum requires the Corps "...to deposit material dredged from the Outer Bar Channel in the SIBUA and/or the Feeder Berm Disposal Area (the "alternate disposal areas"), subject to..." five specified caveats, anyone of which could negate the future use of the SIBUA. Of the five caveats, the following two are especially relevant to the described contention:
 - (iii) currently unforeseen negative consequences from repeated use of these alternative disposal areas are discovered;
 - (v) identification and authorization by the Corps of an area more beneficial to Dauphin Island.

At the time, the LSA was executed in 2009, the Mobile District had in fact been disposing of dredged sands from the Bar Channel in the SIBUA since 1999, with deposition occurring in 1999, 2002, 2004, 2005, 2006, 2007, and 2008. For those years, a total of 8,602,930 cy was placed in the SIBUA. Instead of the sands moving out of the SIBUA to rejoin the littoral drift system to be carried to nourish Dauphin Island as the Mobile District stated would occur, a significant quantity of the sands was actually accumulating within the SIBUA. The sand accumulations had in fact reached the point announcing the SIBUA was being expanded 2,000 feet to the south of its original southern boundary to provide additional disposal capacity. Even during the site expansion process the Mobile District was unaware of how much, if any, of the placed sands actually moved out of the SIBUA to rejoin the littoral drift system.

Of great importance, during negotiation of the 2009 LSA, we believe the Mobile District and the Department of Justice attorneys intentionally withheld from the plaintiffs and the Class members the crucial fact that the SIBUA was not functioning as intended, while the Mobile District had full knowledge the SIBUA would not be beneficial in effectively countering Dauphin Island's erosion problem. Thus, the plaintiffs and Class accepted the LSA on the condition the dredged sands would be placed in the SIBUA, which the Court subsequently found to be a fair settlement. All this occurred by the Mobile District keeping all plaintiff parties and the Court ignorant of the true facts surrounding the ineffectiveness of the SIBUA. Now the Corps is expanding the SIBUA northwest again because the SIBUA is accumulating.

9. The Corps must follow all CEQ's and NEPA guidelines, Corps policies and all federal laws.
10. The Mobile District must acknowledge that Dr. Robert Dean dissented to Dr. Mark Byrnes 2008 study that states that there is no measurable erosion of Dauphin Island Shoreline.
11. Since the Mobile District has recognized Robert Morton's 2007 study in its MsCIP study for Mississippi that it also applies to Alabama's Mobile Bay: "The principal causes of barrier island land loss are frequent intense storms, a relative rise in sea level, and a deficit in the sediment budget. The only factor that has a historical trend that coincides with the progressive land loss is the progressive reduction in sand supply associated with the nearly simultaneous deepening of channels dredged across the outer bars of the three tidal inlets maintained for deep-draft shipping...."

The reduction in sand supply related to disruption of the longshore sediment transport system is the only factor contributing to land loss that can be managed directly. This can be accomplished by placing dredged material so that the adjacent barrier island shores receive it for barrier island nourishment and rebuilding."

12. A four-part plan needs to be put into place that will address the past, present and future sand needs of Dauphin Island so that it can benefit the entire region, including Mobile Bay, Mississippi Sound area, Mobile County and the Chain of Barrier Islands:
 1. Recognize the past historical sand loss and put a plan in place to place sand directly place sand on the shoreline to remedy the immediate erosion that has been caused by years of dredging the ship channel and over 20 million cy of sand being lost to the littoral system;
 2. Establish and effective sand bypass plan to deposit sand in a most beneficial location that is closer to the shoreline and in more shallow water and implement a monitoring system to ensure that sands leaving the SIBUA enters the littoral system and migrates to Dauphin Island. If the monitoring does not show this is happening the Corps of Engineers must agree to look for locations that are more beneficial and ensures the dredged sands does reach Dauphin Island.

3. Establish a maintenance dredging plan that will address the future costs associated with the dredging of the ship channel
 4. Pass appropriate legislation that requires any entity dredging the Navigation Channels to place the dredged sand on the adjacent shores.
13. The Corps must respond to my question that was posed to Col DeLapp about the statements that Susan Rees made as a Corps expert at the 2009 Fairness Hearing. which he was to provide an answer. COL. DeLAPP's reply to my questions about Susan Rees statements at the Fairness Hearing: "That would be appreciated. I mean, that's a lot. I was trying to take a couple of notes. But if you don't mind, I will probably follow up with you and answer specifically on that. I need to go back and look and see, you know, what her testimony was and what – and the like."

I have not received a response from Colonel DeLapp NEVER to my questions that I asked of him at the Town Hall meeting on February 22nd. I am therefore requesting the Mobile Harbor Widening and Deepening project team to provide and answer to my questions and to my questions to Colonel DeLapp about the statements that Dr. Susan Rees made at the 2009 Fairness Hearing. I am specifically asking that that the project team acknowledge whether or not Susan Rees statements are true or not.

During her sworn testimony, Dr. Rees stated that "A supplement to the original environmental impact statement would have to be conducted if there was any expansion to the ship channel." She said, "A general re-evaluation report would have to consider whether conditions in the study area had changed since the 1980s survey report was completed," and that's going back, which has been mentioned earlier. She also stated that "The GRR would definitely examine the impacts of expanding the channel to the coastal processes of Dauphin Island." **My question is** – and there's a second part to it -- since Dauphin Island shoreline has continued to erode over the years after the 1980 survey report was completed, was Dr. Rees's testimony at the 2009 fairness hearing factually correct that a GRR/EIS is required to address changed conditions, or did she incorrectly state that? And in fact, her statement was not true, that the -- that the Corps is required to address the changed conditions. If Dr. Rees's testimony was correct, why is the GRR/EIS study ignoring the increased erosion of Dauphin Island shorelines that have occurred since that period of time?

I have not received a response from Col DeLapp or from the Mobile Team. I am asking for the answer to my questions provided above.

15. The Corps of Engineers needs to ensure that The Endangered Species Act is followed and ensure that the sea turtles and sand Pipers are protected, and the Historic Preservation of the Lighthouse is maintained.
16. If the Corps of Engineers does not agree to locate the new proposed SIBUA in a location closer to Dauphin Island and in more shallow waters, the Corps must sign an agreement that it will use the SIBUA Northwest Extension for the life of the Mobile Harbor dredging project and will monitor the SIBUA Northwest Extension to make sure that the dredged sand enters the littoral system and reaches the southern shoreline of Dauphin Island. A report must be maintained, and a copy provided to the Town of Dauphin Island and the Dauphin Island Property Owners Association.
17. If after a year or earlier, in the event that report of the new SIBUA shows that the sand does not move out but shows accumulation, ie, does not work, the Corps must agree to find another location closer to Dauphin Island in waters less than 15 feet deep.


Enclosures

List of Enclosures:

1. July 16, 2018 E-mail from Col Joly to [REDACTED]
2. May 30, 1997 Memorandum for Commander from SAD
3. Feb 22, 2018 Transcription: Corps of Engineers [REDACTED] (excerpt)
4. Sept 2009 Testimony of Susan Rees, Corps of Engineers (excerpt)
5. July 14, 2009 Second Addendum of the Settlement Agreement
6. Nov. 24, 2009 Final Order Lawsuit: Corps of Engineers v DIPOA & Jim Hartman
7. Dec 7, 2000 Regional Settlement Management Demonstration Minutes
8. 2007 Dr. Robert Morton report: Historical Changes in the Mississippi-Alabama Barrier Islands (Excerpt)
9. March 25, 2018 Birmingham News: Article about Sea Turtles, and tracks of sea turtles
10. July 18, 2014 ClimateWire Article with Pat Robbins statements
11. 1950's Picture of Dauphin Island
12. 1908-2009 Mobile Harbor Outer Bar Channel Dredging History

From: "Joly, Sebastien P COL USARMY CESAM (US)" <Sebastien.P.Joly@usace.army.mil>
To: [REDACTED]@yahoo.com>
Sent: Monday, July 16, 2018 2:18 PM
Subject: RE: Mobile District's lies about Dauphin Island
Dea [REDACTED]

Thank you for your email on Friday, July 13. I certainly appreciate your historical perspective of the various activities that have occurred in the past.

As the new Commander in Mobile, my focus will be on assuring that the current General Reevaluation Report (GRR) and accompanying Supplemental Environmental Impact Statement (SEIS) contain an analysis of, and reaches conclusions based on, the most up-to-date scientific information available.

I certainly understand the importance of learning from history and fully expect the team to provide a cumulative impact analysis of past efforts and studies.

Again, thank you for your interest and I hope you are able to attend the open house in September where this information and analysis will be available for discussions with the public.

Colonel Sebastien Joly
U.S. Army Corps of Engineers, Mobile District



DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

CECW-P/O

30 MAY 1997

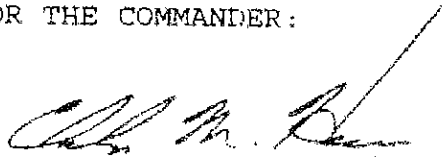
MEMORANDUM FOR Commander, South Atlantic Division

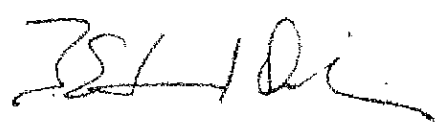
SUBJECT: Implementation of Section 302 of the Water Resources Development Act of 1996 (WRDA 96) - Mobile Harbor, Alabama

1. Section 302 of WRDA 96 amends Section 201(a) of WRDA 86 on dredged material disposal from Mobile Harbor, Alabama project. The new legislation authorizes that the Secretary, after compliance with applicable laws and after opportunity for public review and comment, may consider alternatives to disposal of dredged material from Mobile Harbor in the Gulf of Mexico, including environmentally acceptable alternatives for beneficial uses of dredged material and environmental restoration. The intent of section 302 is to allow alternatives to deep water disposal in the Gulf of Mexico that would be environmentally and economically beneficial.

2. Maintenance dredging should be accomplished in the most cost effective, efficient, and environmentally sound manner. However, the Mobile District should evaluate alternative disposal options for placement of dredged material from Mobile Harbor. Any examination of other alternatives to Gulf disposal should involve a multi-agency coordination team including Federal, State, and local resource agencies. Mobile District should make efforts to use District Engineer authority to make adjustment to the Federal standard to accommodate section 302 directly as well as, authorities under section 204 of WRDA 92, and section 207 of WRDA 96.

FOR THE COMMANDER:


CHARLES M. HESS
Chief, Operations, Construction
and Readiness Division
Directorate of Civil Works


G. EDWARD DICKEY
Chief, Planning Division
Directorate of Civil Works

CESAD-ET-P\C (CECW-P\O\30 May 97) (1105-2-10b) 1st End
Mr. Barnett\bjg\404-331-4580\Mr. Deveau\404-331-6742
SUBJECT: Implementation of Section 302 of the Water Resources
Development Act of 1956 (WRDA 96) - Mobile Harbor, Alabama

Commander, South Atlantic Division, U.S. Army Corps of Engineers,
Room 322, 77 Forsyth Street, S.W., Atlanta, Georgia 30303-3490

FOR COMMANDER, MOBILE DISTRICT

1. Section 302 of WRDA 96 affords an excellent opportunity to revisit the authorized plan for maintenance of Mobile Harbor in the interest of environmental protection and restoration and economic efficiency. Coupled with the high cost of maintaining the project as currently authorized and changing attitudes among environmental interests regarding the value of dredged material as a resource, Section 302 may allow you to develop a "master plan" for maintenance of lower Mobile Harbor that incorporates many positive environmental features and saves O&M funds.
2. As O&M funds for the Mobile Harbor project will permit, you should investigate opportunities to modify the authorized maintenance plan in accordance with Section 302. Any investigations you undertake in this regard should address appropriate adjustments to the "Federal standard" (or Base Plan) for channel maintenance along with any opportunities for use of Section 1135 and 204 authorities to implement pertinent features of the modified maintenance plan.
3. It is paramount that any efforts to modify the authorized maintenance plan for Mobile Harbor be developed in close partnership with the project sponsor, Federal and state resource agencies, environmental groups, and all other stakeholders. In the interest of efficiency and to avoid duplication of effort, we strongly recommend that you use any existing interagency forums, like the Mobile Bay National Estuary Program, as a means to engage stakeholders in the development and evaluation of alternative dredged material management strategies.

FOR THE COMMANDER:

CARL R. POSTLEWATE
Director of Engineering and
Technical Services

Author: Dennis W Barnett SAD at X400
Date: 7/3/97 2:23 PM
Priority: Normal
Receipt Requested
TO: Roger A Burke at sampd_po
Subject: Mobile Harbor, Section 302

----- Message Contents -----

Roger,

I have attached our endorsement to the HQ memorandum on the subject issue as an advance copy. We had given you a copy of the HQ memo when you were recently up here. I think you will find that our endorsement encourages you to look for opportunities to change the OEM plan without putting too many constraints or conditions on you.

Please share with others, especially Operations, as appropriate.

Dennis Barnett

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT

* * * * *

MOBILE HARBOR IMPROVEMENT
OPEN HOUSE

* * * * *

Transcript of comments by the general
public during the Mobile Harbor Improvement
Open House, held at the Mobile Convention
Center, 1 South Water Street, Mobile,
Alabama, on February 22, 2018, commencing
at approximately 6:00 p.m.

1 or any of that kind of --

2 MR. MCDONALD: That was the intent of
3 identifying those areas where there are deeper
4 areas. If you go out and survey, you won't see
5 it. But if you go out there and probed them,
6 the probe just keeps going.

7 MODERATOR: Move on to another question.

8 AN AUDIENCE MEMBER: I'm [REDACTED] And
9 I'm kind of representing the west end property
10 owners of Dauphin Island.

11 Over the past -- and I'm going to read
12 this so I can get through it in three minutes
13 to make sure that we should have time.

14 I have participated in meetings with y'all
15 over the past two years. And I appreciate
16 that, and I hope that we can have a couple
17 more. Because I think there's an opportunity
18 for us to discuss some issues that are going on
19 and we're talking about tonight.

20 But I have heard the same statement in all
21 of those meetings and public hearings -- and
22 David said it again tonight. And that is that
23 the Mobile role only studied the effects of

1 deepening and widening of the Mobile channel on
2 Dauphin Island as it exists today and will not
3 evaluate the changed conditions that have
4 occurred in the history.

5 I've owned property there, and I watched
6 that west end recede over 100-some feet and
7 lose four-and-a-half feet of elevation in 14
8 years, a little bit less than eight feet a
9 year. And the average, from what I have heard
10 and some history, is actually 10 years ago; so
11 it's still receding.

12 So if we evaluate based upon existing
13 conditions, property that is under water today
14 will remain under water. Property that is
15 sitting on people's shoreline, right up to
16 their pylons will exist today and tomorrow, as
17 David states.

18 I want to carry us back to the fairness
19 hearing and the statement that Dr. Susan Rees
20 said when she testified at that hearing, under
21 oath, and on behalf of the Corps as their
22 expert witness. This was September 15, 2009.

23 To settle the Dauphin Island Property

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MOBILE, ALABAMA 36604 251-432-DEPO*

U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

MOBILE HARBOR IMPROVEMENT OPEN HOUSE 2/22/2018

1 Owners Association lawsuit -- that was the
2 purpose of that hearing. During her sworn
3 testimony, Dr. Rees stated that "A supplement
4 to the original environmental impact statement
5 would have to be conducted if there was any
6 expansion to the ship channel."

7 She said, "A general re-evaluation report
8 would have to consider whether conditions in
9 the study area had changed since the 1980s
10 survey report was completed," and that's going
11 back, which has been mentioned earlier. She
12 also stated that "The GRR would definitely
13 examine the impacts of expanding the channel to
14 the coastal processes of Dauphin Island."

15 My question is -- and there's a second
16 part to it -- since Dauphin Island shoreline
17 has continued to erode over the years after the
18 1980 survey report was completed, was
19 Dr. Rees's testimony at the 2009 fairness
20 hearing factually correct that a GRR/EIS is
21 required to address changed conditions, or did
22 she incorrectly state that?

23 And in fact, her statement was not true,

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U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

MOBILE HARBOR IMPROVEMENT OPEN HOUSE 2/22/2018

1 that the -- that the Corps is required to
2 address the changed conditions. If Dr. Rees's
3 testimony was correct, why is the GRR/EIS study
4 ignoring the increased erosion of Dauphin
5 Island shorelines that have occurred since that
6 period of time?

7 Secondly, NEPA guidelines are involved and
8 are in play, and it requires that the Corps
9 document the impact of the maintenance dredging
10 to ensure that environmental issues are
11 considered and to also provide Congress as
12 receiving recommendations with a sound basis
13 for evaluating the environmental aspects of the
14 Mobile Harbor.

15 In fact, the 11th Circuit summarized the
16 duty to supplement an EIS as follows: "If,
17 after the original EIS is prepared, the agency
18 makes substantial changes in the proposed
19 action that are relevant to environmental
20 concerns, or, if there are significant new
21 circumstances or information relevant to an
22 environmental concern bearing on that proposed
23 action as its impact, will the Mobile Harbor

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U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

MOBILE HARBOR IMPROVEMENT OPEN HOUSE 2/22/2018

1 follow the NEPA guidelines and address the
2 changed conditions and prepare supplemental EIS
3 back to 1980?

4 So those are the two questions. And I
5 will be happy to leave this for you so that you
6 can answer it.

7 COL. DeLAPP: That would be appreciated.
8 I mean, that's a lot. I was trying to take a
9 couple of notes.

10 But if you don't mind, I will probably
11 follow up with you and answer specifically on
12 that. I need to go back and look and see, you
13 know, what her testimony was and what -- and
14 the like.

15 And I can't give you a definitive answer
16 on both of those right now. Generally
17 speaking, I think what David said is we're
18 going kind of under the current conditions.
19 Obviously, we can't undo time. I can't go back
20 in time. So it's generally from the conditions
21 today --

22 AN AUDIENCE MEMBER: The conditions --

23 COL. DeLAPP: The conditions today and

1 IN THE UNITED STATES COURT OF FEDERAL CLAIMS

2
3 C O P Y

4
5 DAUPHIN ISLAND PROPERTY

6 OWNERS' ASSOCIATION, INC.,

7 a non-profit corporation;

8 and JAMES W. HARTMAN, ET. AL.,

NO. 00-115L

9 PLAINTIFFS,

10 vs.

11 THE UNITED STATES OF AMERICA,

12 DEFENDANT.

13
14 EXCERPT TESTIMONY

15 OBJECTION STATED BY DR. SUSAN IVESTER REES

16 FAIRNESS HEARING

17
18 Whereupon, the Fairness Hearing was held
19 before the Honorable Bohdan A. Futey, Senior
20 Federal Judge, at the United States District Court
21 House, 113 St. Joseph Street, Second Floor, Mobile,
22 Alabama, 36602, on Tuesday, the 15th day of
23 September, 2009, at 1:00 p.m.

(APPEARANCES)

THE HONORABLE BOHDAN A. FUTEY'S LAW CLERK:
AMY HOGAN-BURNEY

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1 (EXAMINATION OF DR. SUSAN IVESTER REES)

2 BY MR. BURGESS:

3 Q. Dr. Rees, could you state your name and
4 address for the record.

5 A. Susan Ivester Rees, I-V-E-S-T-E-R,
6 R-E-E-S, and I'm a resident of Mobile County.

7 Q. Thank you, Dr. Rees.

8 I called you a doctor. Can you explain to
9 the Court how you came to have that title?

10 A. Yes, sir. I received my Ph.D. in Marine
11 Sciences from the University of South Carolina in
12 1975.

13 Q. And are you currently employed by the
14 Corps of Engineers?

15 A. Yes, I am.

16 Q. And could you briefly state your
17 employment history?

18 A. I have been employed with the Mobile
19 District Corps of Engineers since 1981. Since that
20 time I've held a number of positions with the
21 Corps. Primarily in what is called the Coastal
22 Environment Section of Planning Division.

23 The duties of that section are to ensure

1 the environmental compliance of all of the
2 federally authorized projects and military
3 activities that are undertaken by the district.

4 Q. What are your current responsibilities
5 with the Corps?

6 A. Currently I'm the program manager for the
7 Mississippi Coastal Improvements Program.

8 Q. Before you were employed by the Corps,
9 just briefly state your experience, work
10 experience.

11 A. Yes. From 1975 till 1981 I was on the
12 faculty of the University of Alabama stationed at
13 the Dauphin Island Sea Lab.

14 Q. Are you familiar with the Corps' dredging
15 operations on what we call the outer bar channel?

16 A. Yes, I am. The Mobile Harbor Project was
17 one of the projects that I was responsible for.

18 Q. Okay. What -- I'm going to ask some
19 questions of you now, Dr. Rees, that are going to
20 basically take us through the background of how the
21 project as it's currently maintained became
22 authorized and how it's currently maintained and
23 then comparing that with the authorized dimensions.

1 would have to dredge an additional 100 feet beyond
2 that?

3 A. We would have to go up to the vertical
4 chain to determine if that could be approved within
5 the Corps of Engineers or whether it would require
6 additional Congressional approval.

7 Q. Now, in terms of an explanation here, why
8 didn't you dredge out to the full extent of your
9 Congressional authorization?

10 A. The Water Resources Development Act of
11 1986 also implemented a cost-sharing provision for
12 Corp of Engineers' projects; and in the case of
13 navigation, 45 feet was a magic depth at which a
14 new cost-share provision would be implemented for
15 any project having a navigation depth greater than
16 45 feet. The local sponsor has to pick up 50
17 percent of the construction costs and then pick up
18 50 percent of all future maintenance after that
19 construction.

20 Q. Who is the local sponsor?

21 A. The State Port Authority of Alabama.

22 Q. And if you'll go back to Exhibit 1.

23 Now, just so we don't get terribly confused on the

1 to how much money is involved?

2 A. I think ten years ago the estimate of
3 construction was somewhere in the range of
4 \$200 million, but based on recent experience that
5 estimate is no longer valid.

6 Q. Thank you, Dr. Rees.

7 I'm going to ask you now to basically --
8 there's been some suggestion here that the Corps
9 already has the funds to do this and it can just go
10 out and basically start digging. And I need you to
11 take the Court and also the class members here
12 through the process that you believe needs to
13 happen or that you know needs to happen based on
14 your knowledge of the regulations and your
15 experience and your current position before this
16 additional dredging could occur.

17 A. Engineering regulation 1105-2-100, Chapter
18 4, dictates that for post-authorization projects --
19 and in this case if we were to try to deepen Mobile
20 Harbor, that would be considered post-authorization
21 -- that we have to do a re-evaluation report
22 utilizing current planning criteria and current
23 policy and regulations.

1 There are two types of reports that you
2 can do. And basically the period of time that has
3 elapsed since the original report was done and a
4 consideration of whether conditions have changed
5 since that original report was done, those two
6 factors drive the level of reporting that is
7 required.

8 For the case of Mobile Harbor, we would
9 have to do what is called a general re-evaluation
10 report. That basically brings all of the economics
11 up to current condition. It looks at whether the
12 project is still justified or not.

13 If you take Mobile Harbor specifically, it
14 was originally authorized based on the coal trade
15 and the use of the McDuffie Coal Terminal. Today,
16 the through-port and the port is vastly different
17 from what it was in the late '80s, so there's
18 different economics obviously, the cost of dredging
19 and the placement of dredge material has changed
20 significantly and the environment has changed. And
21 so we would have to take into consideration all of
22 those aspects in preparing that general
23 re-evaluation report.

1 And as far as the environmental compliance
2 goes, because of the age of the original EIS we
3 would have to do a supplement to that EIS.

4 Q. And I had asked you before, did I not,
5 obviously you have years of experience with the
6 National Environmental Policy Act compliance; is
7 that correct?

8 A. Yes, I do.

9 Q. Now, would that also take into account
10 engineering feasibility?

11 A. Yes.

12 Q. And economic benefit?

13 A. That's correct.

14 Q. And the cost benefit ratio?

15 A. Yes.

16 Q. I understand has that changed?

17 A. The cost benefit ratio for a budgetable
18 project changed last year.

19 Q. Now, how about would you have to have a
20 new project agreement with the State?

21 A. If the findings of the general
22 re-evaluation report were in the affirmative, prior
23 to any construction activities, we would have to

1 have a new partnership agreement with the State and
2 the State Port Authority that would detail their
3 costs for the initial construction and for the
4 future maintenance as well as their other
5 responsibilities.

6 Q. And is it correct to say -- I'll probably
7 let the State speak to this, but the State would
8 have to figure out how -- whether they could
9 shoulder this additional expense; is that correct?

10 A. Well, they would have to figure out that
11 and then they would also have to work with the
12 Congressional delegation to get the Corps the money
13 as well.

14 Q. You mentioned that an environmental impact
15 statement would be issued if there was any
16 expansion over the current -- currently maintained
17 dredging depths and width. Would that
18 environmental impact statement examine the impact
19 on Dauphin Island of any expansion?

20 A. It would definitely examine the impacts to
21 the coastal processes of the entire region, not
22 just Dauphin Island.

23 Q. But including Dauphin Island?

1 A. Definitely.

2 Q. You heard testimony this morning that you
3 have the funds available to construct the --
4 already available to construct this expansion; is
5 that correct?

6 A. No, that's not.

7 Q. And could you explain that. Explain
8 possibly that, that mistaken impression and how
9 they might have gotten that.

10 A. When I went back to that report on the
11 Panama Canal, it does show that some funds are
12 available for Mobile Harbor.

13 In 2008 the only funds that we had
14 available were for a general re-evaluation of the
15 proposed turning basin at the northern end of the
16 project up in the Mobile River.

17 Q. And that's -- just pointing to Exhibit 1,
18 where is that on that?

19 A. It's -- if you'll look at the black dot at
20 Mobile and you consider due north being 12 o'clock,
21 that would be up at about 2 o'clock.

22 Q. So that has nothing to do with the outer
23 bar at all?

IN THE UNITED STATES COURT OF FEDERAL CLAIMS

DAUPHIN ISLAND PROPERTY)	
OWNERS ASSOCIATION, INC.,)	
a non-profit corporation, and JAMES W.)	
HARTMAN, et al.,)	
)	
Plaintiffs,)	No. 00-115 L
)	
v.)	
)	Judge Bohdan A. Putey
UNITED STATES OF AMERICA,)	
)	
Defendant.)	

SECOND ADDENDUM TO LITIGATION SETTLEMENT AGREEMENT

This Second Addendum to the Litigation Settlement Agreement ("Second Addendum") is entered into as of this 14th day of August, 2009 by and among the United States of America, including its agency the United States Army Corps of Engineers (collectively the "United States"), Dauphin Island Property Owners Association and Jim Hartman, individually and as representatives of a class of similarly situated Plaintiffs (collectively "Plaintiffs") as certified by the Court (the United States and the Plaintiffs hereinafter collectively the "Parties to the Litigation"), and the State of Alabama (the "State"), and settles and resolves finally the claims made in the above captioned litigation.

RECITALS

1. On July 15, 2005, the United States, the Plaintiffs and the State (hereinafter collectively the "LSA parties") entered into a settlement agreement (the "Litigation Settlement Agreement" or "LSA"), a copy of which is annexed hereto as Exhibit A. On November 15, 2005, the LSA parties executed the First Addendum to Settlement Agreement ("First Addendum"), a copy of which is annexed hereto as Exhibit B.
2. On January 11, 2006, the Court certified an opt-in class of all present owners of a property interest (including condominium owners) and those who owned a property interest as of July 15, 2005 on Dauphin Island, Alabama. On February 14, 2006, the Court approved preliminarily the settlement pending a Fairness Hearing to be held in Mobile, Alabama on July 11, 2006, and made further provision for the directing of notice to the proposed class and the reporting of responses. Notice was given, the class members were identified, and on July 11,

2006, the fairness hearing was duly held. The list of persons that opted into the class the Court certified is contained in the parties' Joint Exhibits 2 and 4, submitted at the fairness hearing.

3. On September 5, 2006, the Court issued its Amended Opinion and Order approving the settlement, determining the LSA to be fair, adequate and reasonable among the United States and the Plaintiffs, including the plaintiff class.
4. Section 3 of the LSA provided for an Impacts Study to determine whether any measurable erosion of Dauphin Island, Alabama, could be attributed to the dredging activities of the United States Army Corps of Engineers (hereinafter the "Corps"). Depending on its findings and further processes specified in the LSA, the Impacts Study could result in either dismissal of this lawsuit or a beach nourishment project conducted by the Corps for Dauphin Island, if feasible. Performance of the LSA parties' several obligations under section 3 has proceeded to date as follows:
 - a. Dr. Mark Byrnes, the neutral Principal Investigator (the "PI") designated by the LSA parties pursuant to section 3 of the LSA, issued his Final Report on January 10, 2008. The Final Report concluded that there was no measurable erosion of Dauphin Island attributable to the Corps' dredging activities.
 - b. On March 10, 2008, Plaintiffs' expert on the Independent Technical Review Team (the "ITRT") designated pursuant to section 3 of the LSA, Dr. Robert Dean, issued a written dissent (the "Dissent") from the findings of the Final Report.
 - c. On May 5, 2008, the United States and the State advised that they declined to make the election described in section 3(f)(i) of the LSA.
 - d. On May 8, 2008, pursuant to section 3(f)(ii) of the LSA, Plaintiffs requested that an ADR Judge be assigned to hold a confidential neutral evidentiary evaluation on the question of whether the PI's determination in the Final Report is fundamentally flawed, plainly wrong, or arbitrary.
 - e. On July 29, 2008, the Court assigned Senior Judge Eric G. Bruggink to hold the aforesaid confidential neutral evidentiary evaluation. The parties briefed the issues to Judge Bruggink, agreed on applicable procedures, and the matter is ready for hearing.
 - f. Pursuant to section 3(f)(ii)(cc) of the LSA, Plaintiffs would be required in the ADR proceeding to show by a preponderance of the evidence that the

PT's determination in the Final Report is fundamentally flawed, plainly wrong, or arbitrary. In the event that Plaintiffs failed to satisfy their burden, the litigation would be dismissed in its entirety and Plaintiffs would take nothing by way of just compensation or other relief, and no beach nourishment project would be undertaken by the Corps. If Plaintiffs succeeded in meeting their burden of proof, the obligation of the Corps to undertake a beach nourishment project would be subject to a determination by the Corps of feasibility, and the possibility that the litigation would be reopened in the event no project is constructed.

5. Pursuant to section 11 of the LSA, the LSA parties have met in good faith and, following extensive negotiations; have agreed to enter into this Second Addendum to Settlement Agreement in order to mitigate the mutual risks of proceeding in ADR, subject to the Court's approval after notice to the class members and hearing.

NOW THEREFORE, FOR GOOD AND VALUABLE CONSIDERATION, THE RECEIPT OF WHICH IS DULY ACKNOWLEDGED, IT IS AGREED:

1. The United States and the State shall pay to the Plaintiffs the sum of one million five hundred thousand dollars (\$1,500,000.00) (the "Settlement Funds") of which the United States' share shall be \$1,440,000.00, and the State's share shall be \$60,000.00, in full and final settlement of all claims in this litigation, including all claims for attorneys' fees and costs under the LSA, its addenda, or any applicable law.
2. Plaintiffs, on behalf of themselves and their assignees and transferees, hereby release and discharge the United States and the State of Alabama from all liability (including all claims seeking compensation for taking of Plaintiffs' property under the Fifth Amendment to the Constitution), and covenant not to sue the United States, or the State of Alabama, for past, present, or future erosion on Dauphin Island, Alabama, resulting from the Corps' construction, operation, and maintenance of the Mobile Outer Bar Navigation Channel ("MOBC"), *provided however* that any release as to erosion occurring after the execution of this Second Addendum shall be valid only to the extent and so long as such construction, operation, and maintenance is
 - a. within the dimensional limits of the MOBC project's current Congressional authorization, see Water Resources Development Act of 1986, Pub. L. No. 99-662, § 201, 100 Stat. 4082, 4089-90, as set forth in section 2.a of the statutorily referenced Report of the Chief of Engineers dated November 18, 1981, a copy of which has been furnished to counsel; and

- b. in compliance with the provisions of section 5.d of this Second Addendum.

This release includes all claims for attorneys' fees and costs incurred in connection with performance of the terms of the LSA and its addenda, including without limitation all costs and fees associated with the negotiation and implementation of this Second Addendum including notice to the class and the fairness hearing.

3. Plaintiffs' counsel represent that they are unaware of any intent by any current or prospective owner of a real property interest in Dauphin Island, whether a member of the class the Court certified previously or not, to institute any judicial or administrative proceedings against the United States or its agencies arising from alleged erosion on Dauphin Island.
4. Subject to and upon approval by the Court of this Second Addendum after notice to the class and hearing, Plaintiffs will execute the stipulation of dismissal with prejudice attached as Exhibit C hereto.
5. The LSA is hereby amended and the LSA parties agree as follows:
- a. The terms of Section 1 of the LSA have been fully performed and the opt-in class has been certified by the Court, as contemplated by said Section 1. Except as to the continuing existence of the opt-in class together with all applicable legal attributes of class certification, the provisions of section 1 shall have no further effect upon the execution of this Second Addendum, *provided however* that for the purposes of (and in furtherance of) this Second Addendum, and subject to the Court's approval following the process set forth in Rule 23(e) of the Rules of this Court, the Parties to the Litigation agree that this Second Addendum will bind and be a compromise and resolution in all respects of the claims of all members of the class.
- b. The terms of Section 2 of the LSA will have no further effect upon the execution of this Second Addendum. The Parties to the Litigation agree to promptly petition the Court to lift the stay entered in this case on January 8, 2009 (Docket # 200) to permit the procedures contemplated by section 6 hereof to move forward.
- c. With respect to section 3 of the LSA, the LSA parties acknowledge that each of them has timely and completely fulfilled the terms of subsections 3(a) through 3(f)(ii) of the LSA, with the exception of subsections (aa) through (ff) of section 3(f)(ii), reflecting that the ADR proceeding

described in said subsections has not yet occurred. Notwithstanding the foregoing, section 3 is amended as follows:

- i. The Plaintiffs hereby withdraw irrevocably their request pursuant to LSA § 3(f)(ii) for an ADR Judge to determine whether the negative determination of the Impacts Study is fundamentally flawed, plainly wrong, or arbitrary.
- ii. With reference to the documents prepared pursuant to section 3 of the LSA (the "Impacts Study Record Documents"), and identified as "documentary evidence" in the letter of Wells D. Burgess to the Honorable Eric G. Bruggink dated November 5, 2008 attached as Exhibit D hereto, the PI, within thirty days of Court approval of this Second Addendum, will supplement the Impacts Study Record Documents with a written response to the Dissent (the "Response"), which Response will be served on all the LSA parties and filed with the Court together with the Impacts Study Record Documents. Except as may be required by the Court for purposes of the fairness hearing, no further comment of any type will be filed with the Court by any of the LSA parties or any member of the ITRT pursuant to the LSA, the First or Second Addenda, or in this litigation. The Impacts Study Record Documents as supplemented by the Response will constitute the complete record of the Impacts Study process identified in Section 3 of the LSA, *provided however*, that nothing herein will prevent the PI from publishing the Impacts Study within the scientific community for peer review or prevent any ITRT team member from participating in that review or otherwise commenting on the Impacts Study outside the Court of Federal Claims record.
- iii. Except as expressly amended, and without derogation from the acknowledgment of prior performance, section 3 of the LSA is rescinded and of no further effect.
- d. The terms of section 4 of the LSA are amended to read as follows: "The Corps shall conduct its maintenance dredging practices to deposit material dredged from the MOBC in the Sand Island Beneficial Use Area and/or the Feeder Berm Disposal Area ("the alternate disposal areas"), *subject to* (i) channel shoaling that materially adversely affects or could reasonably be expected to materially adversely affect shipping traffic before the routine, scheduled dredging cycle occurs; (ii) the absence of competitive bid proposals from operators owning equipment capable of disposing material in the alternate disposal areas (i.e., where disposal in these

alternate disposal areas would thus violate the "least costly" restriction imposed by applicable laws); (iii) currently unforeseen negative consequences from repeated use of these alternate disposal areas are discovered; (iv) a change in the law, certifications, authorizations, or regulations that prohibits the deposit of such material in these two disposal areas; or (v) identification and authorization by the Corps of an area more beneficial to Dauphin Island. Plaintiffs agree that neither they nor their counsel, agents or representatives, will in any manner or method suggest or imply that the Corps' deposit of MOBC material pursuant to this section is an admission of liability or evidence of any detrimental impact arising from any action by the United States or its agencies. Similarly, the parties understand that the Corps will -- if none of the five "subject to" caveats listed above prevent it from doing so -- deposit MOBC material in the Sand Island Beneficial Use Area and/or the Feeder Berm Disposal Area.


- e. Sections 5, 6 and 7 of the LSA are hereby rescinded, provided however that the rescission of section 6 shall not be construed as an admission of failure to timely perform any sections of the LSA heretofore performed by the LSA parties, nor shall it be construed to excuse timely performance of any of the provisions of this Second Addendum.
- f. Section 8 of the LSA is rescinded, and shall be substituted with the following: "For and in consideration of the entry of the State of Alabama into this Second Addendum, the United States hereby covenants not to bring any action against the State, and any and all of its agencies, including the Alabama State Port Authority (formerly known as the Alabama State Docks), under the cooperation agreements referred to under section 4, page 2 of the LSA, for any erosion to Dauphin Island allegedly caused by the construction or maintenance dredging of the Channel by the United States or any of its agencies or any other liability, claims (including claims for attorneys fees or costs), demands or indemnity resulting from or related in any way to erosion to Dauphin Island allegedly caused by the construction or maintenance dredging of the Channel by the United States or any of its agencies."
- g. The LSA parties acknowledge that the terms of section 9(a) of the LSA have been fully and completely performed. The remaining terms of section 9 of the LSA are hereby rescinded.
- h. Section 10 of the LSA is rescinded and shall be substituted with the following: "The LSA Parties reserve and do not waive any rights, at law or

in equity, which they may have to enforce the terms of the Litigation Settlement Agreement as amended."

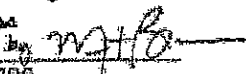
- i. Section 11 of the LSA is rescinded and shall be substituted with the following: "This Litigation Settlement Agreement, the First Addendum and this Second Addendum constitute the entire and sole understanding of the parties hereto with respect to this matter, notwithstanding any prior oral or written statements, instructions, agreements (including, without limitation, the prior version of this Second Addendum executed by the LSA Parties as of August 3, 2009), representations, or other communications. The Litigation Settlement Agreement as supplemented and amended by the First Addendum and Second Addendum may not be amended, modified or abrogated, except upon written agreement executed by all parties. Where provisions of the LSA are amended by this Second Addendum, said amendments replace in their entirety the original provision, except as expressly amended or substituted by the provisions of this Second Addendum.
 - j. Section 12 of the LSA is hereby amended by substituting the words "Litigation Settlement Agreement as amended by the First and Second Addenda" for the words "Litigation Settlement Agreement" wherever those words appear in this section.
 - k. Section 13 of the LSA is rescinded and shall be substituted with the following: "It is expressly understood and agreed that this Litigation Settlement Agreement as supplemented and amended by the First Addendum and Second Addendum represents a compromise of disputed claims and shall not be construed or deemed to be evidence, admission or concession of any fault or liability or damage on the part of any party hereto."
 - l. Section 14 of the LSA has been performed and is of no further effect.
 - m. The First Addendum continues in full force and effect.
6. Plaintiffs shall apply the Settlement Funds, after payment of legal fees, toward a feasibility study for a beach nourishment project, engineering for such a project, and/or actual implementation of such a project for the southern shoreline of Dauphin Island, *provided however*, that neither the United States nor the State shall bear any responsibility for, or have the right to insist on, the performance by Plaintiffs of this paragraph 6, and failure of the Plaintiffs to so perform will not affect in any way the obligations undertaken by Plaintiffs, the United States, or the State pursuant to the remaining provisions of this Second Addendum.

7. The Parties to the Litigation agree to request the Court to direct to the members of the plaintiff class a form of notice advising them of the LSA parties' intention to enter into this Second Addendum and of their opportunity to be heard at a fairness hearing pursuant to Rule 23(e) of the Rules of the United States Court of Federal Claims.
8. This Second Addendum shall be effective as of the date signed, either in unity or in separate part, by authorized representatives of the United States, the Plaintiffs, and the State of Alabama, when approved by the Court of Federal Claims.


Executed as of this 14th day of August, 2009:


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In the United States Court of Federal Claims

No. 00-115L

(Filed November 24, 2009)

**DAUPHIN ISLAND PROPERTY *
OWNERS ASSOCIATION, INC. *
a non-profit corporation; and *
JAMES W. HARTMAN, ***

Plaintiffs, *

v. *

THE UNITED STATES, *

Defendant. *

**Fifth Amendment Taking; Class
Actions; RCFC 23; Settlement,
voluntary dismissal, or
compromise; Hearing and finding
regarding the fairness,
reasonableness, and adequacy of
a proposed settlement.**

Daniel G. Blackburn, Blackburn & Conner, P.C., Bay Minette, Alabama, attorney of record for plaintiffs, Dauphin Island Property Owners Association, Inc. and James W. Hartman, and *Lewis S. Wiener*, Sutherland, Asbill & Brennan, Washington, D.C., *Richard E. Davis*, Daphne, Alabama, and *Joseph D. Steadman*, Dodson & Steadman, P.C., Mobile, Alabama, of counsel.

Wells D. Burgess, U.S. Department of Justice, Environmental & Natural Resources Division, attorney of record for defendant, and *Mark S. Barron*, U.S. Department of Justice, Environmental & Natural Resources Division, trial attorney, and *Gary A. Moore*, U.S. Attorney's Office, Southern District of Alabama, and *Joseph P. Givhan*, Assistant District Counsel, U.S. Army Corps of Engineers, and *William D. Little*, Assistant Attorney General, Office of the Attorney General for the State of Alabama, of counsel.

OPINION AND ORDER

Futhey, Judge.

This case comes before the court for final approval of the Second Addendum to the Litigation Settlement Agreement between the representatives of the plaintiff class, Dauphin Island Property Owners Association, Inc. ("the Association"), and James W. Hartman, and defendant, the United States. The State of Alabama is not a named defendant in this litigation; however, as the local sponsor of the Army Corps of Engineers' ("the Corps") dredging activities the State agreed to be a party to any

agreement and share in certain cost. In return the United States has released the State from certain indemnity claims. On September 15, 2009, a fairness hearing was conducted in Mobile, Alabama. For the reasons stated below, the settlement on behalf of the class is approved.

Factual Background

A. The History of the Case

Plaintiffs are owners of property on Dauphin Island, located in Mobile County, Alabama, on or adjacent to the Gulf of Mexico. The Association is comprised of persons, firms, or entities that own property situated on Dauphin Island. Additionally, the Association owns certain lands on the island, including stretches of beachfront property. The Corps, a federal agency, provides construction, operation and maintenance for the Mobile Ship Bar Channel ("the Channel"), which provides a navigable waterway to the Port of Mobile. This maintenance includes dredging which is accomplished by removing, through various means, sediment from the Channel and disposing of the same in the nearshore, littoral or offshore locations in the Gulf of Mexico.

On March 6, 2000, plaintiffs filed the instant case alleging that the Corps' dredging practices caused significant shoreline erosion of their property. Plaintiffs further claimed that this amounted to an uncompensated taking of their property contrary to the Fifth Amendment. After over five years of negotiations, a proposed settlement was signed by the parties on July 15, 2005, ("the Settlement Agreement"). A notice regarding the Settlement Agreement, which included a joint motion for certification of the class, was filed on July 19, 2005. The case was certified as an opt-in class action on January 11, 2006, and approximately 1,500 property owners, including 99% of the affected landowners on the southern shore of Dauphin Island, opted-in to the class. On July 11, 2006, a fairness hearing was conducted in Mobile, Alabama to determine the appropriateness of the Settlement Agreement and to hear any objections from the class. On September 5, 2006, an Amended Opinion and Order was issued that approved the Settlement Agreement between the plaintiffs and defendant.

1. The Settlement Agreement of July 15, 2005

The Settlement Agreement did not provide a monetary remedy to class members, rather it required a study of the causes of the erosion and, if the Corps' construction or maintenance practices were determined to have caused erosion, to then implement measures aimed to replenish the beachfront and prevent further wearing away of the shoreline. Upon certain conditions, the Corps agreed to modify its dredging disposal practices. Instead of disposing of the dredged material from the

Channel into the historically designated locations in the Gulf of Mexico south of Dauphin Island, the Corps agreed to dispose of the material in two areas nearer the shores of Dauphin Island. Naturally occurring conditions and currents of the Gulf Coast may, according to at least one theory, move or transport the material to the shores of Dauphin Island. In addition, the placement of this dredged material in areas nearer the shore may help diffuse the energy of waves, both ordinary and those produced by hurricanes, that would normally hit Dauphin Island. These new dredging practices were already in place when the Settlement Agreement was approved by the court.

The second component of the Settlement Agreement was the decision by all parties to use a team of four highly qualified engineers to perform an impact study. The study's goal was to discover if there is a measurable impact on Dauphin Island's shoreline which can be attributed to the Corps' dredging practices. The study was to proceed in stages, with a Draft Impacts Study completed and presented not later than 10 months from the later of either the effective date of the Settlement Agreement or the date of the Feasibility Cost Sharing Agreement. All members of the team had 30 days to review and comment on the Draft Impacts Study, and then 30 days after the review a Final Report was submitted.

If the Final Report finding was positive, meaning that "the quantity of erosion attributable to the Corps' construction, operation and Maintenance Dredging Practices of and at the Channel is above the Minimum Measurable Erosion of Dauphin Island's shoreline," then the parties would proceed to the next phase of the process—the Feasibility Study Phase. *See* Settlement Agreement ¶ 3(e). If, however, the study showed that the Corps' dredging practices had no effect on Dauphin Island's shoreline (a finding of negative impact), plaintiffs agreed to dismiss the litigation with prejudice, subject to a provision that allowed the parties to participate in alternative dispute resolution ("ADR"). According to the Settlement Agreement, the ADR process required a heightened burden of proof. If the plaintiffs did not succeed in ADR, the case would be dismissed with prejudice. Notwithstanding a study result of negative impact, the Corps could, in its own discretion, declare the results inconclusive and the process would move into the Feasibility Study Phase.

In the Settlement Agreement, defendant also reserved a statute of limitations defense. In the event that the statute of limitations defense failed and if the original finding of the impact study was positive, then the impact study's Final Report would be binding upon the defendant and litigation would proceed to the damages phase.

2. *Events After the Approval of the Settlement Agreement of July 15, 2005*

After the fairness hearing on July 11, 2006, the court ordered the parties to

file joint status reports regarding implementation of the Settlement Agreement every ninety days. The parties filed numerous joint status reports during 2007 and 2008. On January 10, 2008, the Final Report was submitted by the Principal Investigator ("PI"), Dr. Mark Byrnes of Applied Coastal Research and Engineering, to the members of the Independent Technical Review Team ("ITRT")¹ in accordance with the Settlement Agreement and the court's Order of November 5, 2007. The Final Report was negative; there was "a determination that the Corps' construction, operation and Maintenance Dredging Practices of and at the Channel have not resulted in at least Minimum Measurable Erosion of Dauphin Island's shoreline." See Settlement Agreement ¶ 3(f). According to the court's order of February 5, 2008, plaintiffs' ITRT team member Dr. Dean, had until March 10, 2008, to provide a written dissent to the Final Report.

Dr. Dean dissented and indicated that the Final Report was fundamentally flawed, not reliable and at best inconclusive. Dr. Dean's dissent in writing triggered certain provisions in the Settlement Agreement and on May 5, 2008, defendant informed the court that it would not elect to declare the findings of the Final Report inconclusive as allowed pursuant to paragraph 3(f)(i) of the Settlement Agreement. On May 8, 2008, plaintiffs filed a motion and informed the court that they wished to exercise their right to request an ADR Judge "to hold a confidential neutral evidentiary evaluation on the question of whether the PI determination in the Final Report is fundamentally flawed, plainly wrong, or arbitrary." See Settlement Agreement ¶ 3(f)(ii). If the ADR Judge found that the PI's determination was fundamentally flawed, plainly wrong or arbitrary the Corps would be obligated to undertake a beach nourishment project subject to a feasibility determination or litigation could commence. In the event the ADR Judge determined that the PI's Final Report was not fundamentally flawed, plainly wrong, or arbitrary then the case would be dismissed. In the same motion plaintiffs requested a stay of the case and a delay in assignment to an ADR Judge until the PI presented his findings in a public forum on Dauphin Island as required in Exhibit A of the Settlement Agreement.

On July 28, 2008, the parties filed a status report that notified the court that Dr. Byrnes publically presented his Final Report on July 16, 2008. The status report also requested that the case proceed to ADR. On July 29, 2008, this case was assigned to Judge Eric G. Bruggink for ADR. Shortly thereafter, Judge Bruggink held a status conference and then issued a scheduling order on September 12, 2008, which included briefing deadlines and scheduled two ADR sessions in Alabama.

¹ Pursuant to paragraph 3(a), (b) of the Settlement Agreement, the ITRT consisted of: Dr. Robert Dean, University of Florida (for plaintiffs); Dr. Nicholas Kraus, U.S. Army Corps of Engineers, Engineering Research Development Center (for the United States); and Mr. Robert Mink, Geological Survey of Alabama (for the State).

Prior to the start of ADR proceedings the parties decided to attempt to settle the matter through direct negotiations. The parties met on January 27, 2009, and outlined the basic parameters for an agreement. On June 8, 2009, the parties appeared in Washington, D.C., and advised the court that the Second Addendum to the Litigation Settlement Agreement (“Second Addendum”) was almost complete.

On June 22, 2009, the fairness hearing was scheduled for September 15, 2009. On July 30, 2009, the parties filed an expedited motion for approval of the Notice to the Class Members in Advance of the Hearing on September 15, 2009 (“the Notice”). On August 4, 2009, the Notice was approved, with some minor changes to the settlement agreement recommended by the court. Thereafter, on August 14, 2009, the Second Addendum was executed.

3. *The Second Addendum to the Litigation Settlement Agreement*

The Second Addendum was executed to “mitigate the mutual risks of proceeding in ADR.” Second Addendum, Recitals ¶ 5. According to the Second Addendum, *inter alia*, defendant and the State have agreed to pay plaintiffs \$1.5 million dollars in full and final settlement of all claims, including all claims for attorneys’ fees and costs. *Id.* ¶ 1. Plaintiffs agreed to release and discharge the United States and the State of Alabama from all liability and covenant not to sue for past, present or future erosion resulting from the construction, operation and maintenance of the Channel. *Id.* ¶ 2. This release of all liability is valid only if the Corps construction, operation and maintenance is within the dimensional limits of the Channel’s current congressional authorization and the Corps conducts its maintenance dredging practices to deposit material dredged from the Channel in the Sand Island Beneficial Use Area and/or the Feeder Berm Disposal Area subject to the limitation in section 5(d) of the Second Addendum. *Id.* ¶ 2(a),(b).

B. *The Fairness Hearing of September 15, 2009*

The court traveled to Mobile, Alabama, and on September 15, 2009, held a fairness hearing at the United States District Court for the Southern District of Alabama. At the hearing, the court heard the following: opening statements from both plaintiffs’ and defendant’s counsel; support from class representatives, Mr. James Hartman and Mr. Bill Harper, President of the Association; support from Jeff Collier, the Mayor of Dauphin Island; objections from thirteen individual members of the class; and defendant’s presentations by Dr. Susan Ivester Rees of the Corps and Mr. James K. Lyons, Director and Chief Executive Officer of the Alabama State Port Authority.

1. Support for the Second Addendum

At the fairness hearing, the court heard support for the settlement from the named class representatives and other class members, as well as a presentation from defendant's technical experts. These witnesses all testified that the Second Addendum was an appropriate compromise.

For the class, James Hartman, a class representative, testified that he favored the Second Addendum. Tr. 46:4-51:18. The Mayor of Dauphin Island, Jeff Collier, stated that he was in favor of using any funds from a settlement in conjunction with a National Oceanic and Atmospheric Administration grant to help replenish Dauphin Island's beaches. Tr. 53:24-54:5. Bill Harper, President of the Association, described how plaintiffs' case appeared to be "falling apart" in the summer of 2008. Tr. 56:1-25. Mr. Harper encouraged counsel to settle this case. Tr. 57:9-12. Mr. Harper also believes that money from this settlement could be combined with other funds to finance a study of the needs of Dauphin Island's coastline. Tr. 57:13-23.

The court also heard technical testimony from two experts. These experts responded to one of the primary concerns of objectors, that future expansion of the Channel would result in shoreline erosion of plaintiffs' property. Currently, the Channel is 47 feet by 600 feet; however, according to the Water Resources Improvement Act the Channel is authorized to 57 feet by 700 feet. Tr. 130:23-25; 131:1-12. Dr. Susan Ivester Rees, of the Corps, testified that according to the Water Resources Development Act the cost of any construction and maintenance in the Channel would be equally shared between the Corps and the Alabama State Port Authority. Tr. 133:1-21; 134:11-19. James Lyons, Director and Chief Executive Officer of the Alabama State Port Authority, then testified that expansion of the Channel to its authorized limits would be incredibly costly. Tr. 157:24 -160:2. Mr. Lyons stated, "I don't think there would be enough business to justify [expansion]. I don't think I would even ask the Corps or try to even spend any money on trying to study it." Tr. 164:18-21. Both Dr. Rees and Mr. Lyons testified that dredging the Channel to the authorized limits is unlikely because it is both unnecessary and extremely costly.

2. Objections to the Second Addendum

Thirteen objectors also testified, and over one hundred objectors submitted written comments prior to the hearing. Additionally, written objections were received during the fairness hearing and objections were filed with the court on October 14 and November 16, 2009. The objections contain three primary areas of concern with the Second Addendum.

First, objectors are concerned with the adequacy of the settlement arguing that

the settlement provides too low a recovery to compensate plaintiffs for the damage caused by erosion. Written comments described the settlement as “very little net money for [a] huge problem,”² “insufficient . . . compared to what the Class is being required to give up,”³ and “unconscionable.”⁴ Testimony at the fairness hearing labeled the settlement “measly”⁵ and “not fair,”⁶ as well as “grossly unfair” when the scope of possible future erosion is unknown.⁷

Second, objectors indicated that they have not received adequate information. Objectors contend that they did not know that entering the class would bind them to a class judgment or settlement, or that they would be waiving the right to sue for future erosion. For instance, Mr. William Stevens testified at the hearing, “Anything in the past, I understand as a Member of the Class, I could not sue individually over past erosion, but it is the future part that I have objection to.” Tr. 80:10-13. Some objectors are concerned that plaintiffs’ counsel and the named representatives did not inform individual class members of the status of the settlement negotiations. For example, Ms. Laura Martin testified at the hearing, “I have attempted several times to contact [the Association] and they’ve completely ignored my requests . . . I feel like I’ve been ignored and there might be other people like me out there that are trying to get in contact with them and they’re just ignoring me.” Tr. 112:8-17.

Third, many objectors are concerned that the settlement allows the Corps to expand the Channel up to the “authorized” area. Currently, the Corps dredges an area of approximately 47 feet by 600 feet, while the Corps is authorized by the Water Resources Development Act of 1986 to dredge a larger area of 57 feet by 700 feet. Mr. Coffee, a former Corps employee, testified that he and other class members were told the settlement only covered the smaller area. Tr. 86:25-87:2. Mr. Coffee believes this was because some of the plaintiffs’ lawyers were unaware that the “authorized” language in the settlement would allow for an expansion of the dredging area.

Related to these latter two objections, many assert that the terms of the

² Pls.’ Br., Ex. J (Ronald Benoit).

³ Pls.’ Br., Ex J (Glendon and Deborah Coffee).

⁴ Pls.’ Br., Ex J (James and Dee Frazell).

⁵ Tr. 68:1-14 (Stan Graves).

⁶ Tr. 118:10-16 (Tiffin Greer Cowden).

⁷ Tr. 95:11-23 (Glenn Coffee).

settlement are too “unknown” at this time for an informed decision to be made. For instance, Mr. Graves testified at the hearing, “[W]e are being told to give up, fully release and fully discharge the United States Government for a project that has not been developed, not constructed, with unknown consequences and unknown future damages.” Tr. 61:10-19. The written comments show a similar concern; numerous class members complain that they are “giving up . . . fifth amendment rights for an unknown.”⁸

3. *Post-hearing briefs*

On September 30, 2009, post-hearing briefs were filed by both parties. They were quite similar. The court must “independently and objectively analyze the evidence and circumstances before it in order to determine whether the settlement is in the best interest of those whose claims will be extinguished.” *In re Cendant Corp. Litig.*, 264 F.3d 201, 231 (3d Cir. 2001) (quoting *In re Gen. Motors Corp. Pick-Up Truck Fuel Tank Prod. Liab. Litig.*, 55 F.3d 768, 785 (3d Cir. 1995); see also *Moore v. United States*, 63 Fed. Cl. 781, 783 (2005) (stating that the trial court acts as a fiduciary serving as a guardian of the rights of absent class members). Supplemental briefs were therefore ordered. Plaintiffs’ supplemental brief was due on October 30, 2009; however, plaintiffs failed to timely file. On November 2, 2009, this court held an unscheduled status conference to address plaintiffs’ failure to file. On November 6, 2009, with leave from the court, plaintiffs filed their supplemental brief. Defendant filed its response on November 13, 2009, and plaintiffs filed their reply on November 16, 2009.

Discussion

A. *Standards for Decision*

Rule 23 of the Rules of the United States Court of Federal Claims (“RCFC”) governs class actions before this court. This rule is modeled on Fed. R. Civ. P. 23, and while there are differences, cases from other federal courts that apply Fed. R. Civ. P. 23 are relevant to this court’s interpretation of RCFC 23. *Haggart v. United States*, No. 09-103, 2009 WL 3152383, at *3 (Fed. Cl. Sept. 28, 2009) (citing *Barnes v. United States*, 68 Fed. Cl. 492, 494 n.1 (2005)). One of the differences between RCFC 23 and Fed. R. Civ. P. 23, is that “unlike the FRCP, the court’s rule contemplates only opt-in class certifications, not opt-out classes. The latter were viewed as inappropriate here because of the need for specificity in money judgments against the United States, and the fact that the court’s injunctive powers – the typical focus of an opt-out class – are more limited than those of a district court.” Rules Committee Notes (2002). This class action was certified by the court on January 11,

⁸ See, e.g., Pls.’ Br., Ex. J (Lisa Andrews).

2006, and all of the current class members affirmatively joined the class by April 17, 2006.⁹

Pursuant to RCFC 23(e), “The claims, issues, or defenses of a certified class may be settled, voluntarily dismissed, or compromised only with the court’s approval.” RCFC 23(e). The court may only approve a proposed settlement if it is “fair, reasonable and adequate.” *Berkley v. U.S.*, 59 Fed. Cl. 675, 681 (2004) (quoting *In re Prudential Ins. Co. of Am. Sales Practices Litig.*, 148 F.3d 283, 316 (3d Cir. 1998)). In evaluating the settlement agreement this court must assess both the strengths and weakness of each parties’ position; however, it should not “decide the merits of the case or resolve unsettled legal questions.” *Nat’l Treasury Employees Union v. United States*, 54 Fed. Cl. 791, 797 (2002) (citing *Carson v. Am. Brands, Inc.*, 450 U.S. 79, 88 n. 14 (1981)). Settlement is always favored, “particularly in class actions and other complex cases where substantial [] resources can be conserved by avoiding formal litigation.” *In re Gen. Motors Corp. Pick-Up Truck Fuel Tank Prod. Liab. Litig.*, 55 F.3d at 784 (citations omitted); *see also Berkley*, 59 Fed. Cl. at 681 (“Class actions, by their complex nature, carry with them a particularly strong public and judicial policy in favor of settlement.”).

B. Factors to Consider in Analyzing the Fairness of the Second Addendum

The case law and rules of this court do not provide definitive factors for evaluating the fairness of a proposed settlement. Many courts have, however, considered the following factors in determining the fairness of a class settlement:

(1) The relative strengths of plaintiffs’ case in comparison to the proposed settlement, which necessarily takes into account:

(a) The complexity, expense and likely duration of the litigation; (b) the risks of establishing liability; (c) the risks of establishing damages; (d) the risks of maintaining the class action through trial; (e) the reasonableness of the settlement fund in light of the best possible recovery; (f) the reasonableness of the settlement fund to a possible recovery in light of all the attendant risks of litigation; (g) the stage of the proceedings and the amount of discovery completed; (h) the risks of maintaining the class action through trial;

(2) The recommendation of the counsel for the class regarding the

⁹ On July 12, 2006, the parties filed a Joint Motion to Add Class Members. According to the motion, after the deadline of April 17, 2006, several individuals indicated that they sought to join the class and provided opt-in forms to plaintiffs’ counsel. On July 19, 2006, the court granted the motion and added twenty people to the class effective, *nunc pro tunc*, April 17, 2006.

proposed settlement, taking into account the adequacy of class counsels' representation of the class;

(3) The reaction of the class members to the proposed settlement, taking into account the adequacy of notice to the class members of the settlement terms;

(4) The fairness of the settlement to the entire class;

(5) The fairness of the provision for attorney fees;

(6) The ability of the defendants to withstand a greater judgment, taking into account whether the defendant is a governmental actor or a private entity.

Berkley, 59 Fed. Cl. at 681-82 (citing *In re Prudential Ins. Co. of Am. Sales Practices Litig.*, 148 F.3d at 317, 329; *Staton v. Boeing*, 327 F.3d at 959, 961; *D'Amato v. Deutsche Bank*, 236 F.3d 78, 86 (2d Cir.2001)). In reviewing a settlement agreement the court can determine the appropriate weight to give each of the six factors above. *Berkley*, 59 Fed. Cl. at 682 (citing *Torrissi v. Tucson Elec. Power Co.*, 8 F.3d 1370, 1375-76 (9th Cir. 1993)). Most importantly, this court must compare the terms of the settlement agreement with the potential rewards of litigation and consider the negotiation process through which agreement was reached. *Christensen v. United States*, 65 Fed. Cl. 625, 628-29 (2005); *see also Nat'l Treasury Employees Union*, 54 Fed. Cl. at 797 ("Such approval should be given based on the court's assessment of the reasonableness of the proposed compromise, taking into account the context in which the settlement was reached.").

1. The relative strengths of plaintiffs' case in comparison to the proposed settlement

To determine the relative strength of the plaintiffs' case compared to the proposed settlement the court must review how the case would have proceeded if the parties had not reached the agreement in the Second Addendum. The Settlement Agreement of July 15, 2005, laid out a framework for this case. On January 10, 2008, as required by the Settlement Agreement, the Final Report was submitted by Dr. Byrnes. The Final Report determined "that the Corps' construction, operation and Maintenance Dredging Practices of and at the Channel have not resulted in at least Minimum Measurable Erosion of Dauphin Island's shoreline." *See* Settlement Agreement ¶ 3(f). Plaintiffs' expert, Dr. Dean, dissented and indicated that the Final Report was fundamentally flawed, not reliable and at best inconclusive. On May 8, 2008, plaintiffs informed the court that they wished to exercise their right to request an ADR Judge "to hold a confidential neutral evidentiary evaluation on the question

of whether the PI determination in the Final Report is fundamentally flawed, plainly wrong, or arbitrary.” See Settlement Agreement ¶ 3(f)(ii).

According to the Settlement Agreement of July 15, 2005, which was approved by this court, the ADR process required a heightened burden of proof. If the ADR Judge found that the Final Report was fundamentally flawed, plainly wrong or arbitrary then the Corps would be obligated to undertake a beach nourishment project subject to a feasibility determination or litigation could commence. In the event the ADR Judge determined that the PI’s Final Report was not fundamentally flawed, plainly wrong or arbitrary then the case would be dismissed. Participating in ADR, therefore, held risks for plaintiffs including the possibility of dismissal with prejudice.

In the event the plaintiffs did succeed in ADR, the risks of maintaining the case through trial would be considerable. As with any litigation considerable time, resources and effort would be expended and the outcome of any litigation is unknown. Additionally, according to the Settlement Agreement of July 15, 2005, defendant planned to assert the affirmative defense of statute of limitations.

In this case the burden was on plaintiffs to prove in ADR that the Final Report was fundamentally flawed, plainly wrong or arbitrary before trial could commence. If plaintiffs were able to meet that burden, they would then be faced with all the defenses available to defendant. In balancing the strength of the plaintiffs’ case against the proposed settlement the court finds that the analysis weighs in favor of settlement.

2. *The recommendation of counsel for the class regarding the proposed settlement, taking into account the adequacy of class counsels’ representation of the class*

The competency and acceptance of the settlement by counsel for the class weighs heavily in favor of approval. *Nat’l Treasury Employees Union*, 54 Fed. Cl. at 797 (“In particular, the professional judgment of plaintiff’s counsel is entitled to considerable weight in the court’s determination of the overall adequacy of the settlement.” (citing *Luevano v. Campbell*, 93 F.R.D. 68, 88 (D.D.C.1981))). Counsel for the class conducted extensive negotiations with the government and have worked diligently to inform the class members of the terms of the settlement. This case has been pending before the court since 2000, and the parties have already successfully negotiated the Settlement Agreement of July 15, 2005.

On November 6, 2009, plaintiffs’ counsel filed their supplemental brief which detailed the negotiations between the parties to arrive at the agreement found in the Second Addendum. Plaintiffs’ supplemental brief also contained twenty exhibits,

including emails between the parties and drafts of the Second Addendum. Communications between plaintiffs' counsel and the class representatives regarding the Second Addendum were also detailed in the supplemental brief. Mr. Harper, the president of the Association, through Mr. Cliff Brady, General Counsel for the Association, requested that plaintiffs' counsel attempt to settle this matter and even suggested a settlement amount of \$1.5 million. Pls.' Suppl. Br. at 2-3. Additionally, there have been a number of site visits to Dauphin Island and presentations to the class members and it is, therefore, clear to the court that the lawyers are well informed of the state of affairs on Dauphin Island. Accordingly, acceptance of the settlement by counsel for the class certainly weighs in favor of a finding of fairness.

3. *The reaction of the class members to the proposed settlement, taking into account the adequacy of notice to the class members of the settlement terms*

A court may approve a proposed settlement even if a large number of class members object to it. *Berkley*, 59 Fed. Cl. at 687 (citations omitted). If only a small number of members object, however, a court may consider that fact as "strongly favor[ing] settlement." *Stoetznier v. U.S. Steel Corp.*, 897 F.2d 115, 119 (3d Cir. 1990) (finding twenty-nine objections out of two hundred and eighty-one class members "strongly favors settlement"). In assessing the objections of class members, it is useful to remember that "[a] fair settlement need not satisfy every concern of the plaintiff class." *Nat'l Treasury Employees Union*, 54 Fed. Cl. at 798 (quoting *Alliance to End Repression v. City of Chicago*, 91 F.R.D. 182, 195 (N.D. Ill. 1981)).

In response to the Notice, two hundred and thirty-eight individuals submitted responses.¹⁰ One hundred and twenty-three of these were negative, while one hundred and two were positive. Additionally, thirteen responses expressed no opinion or returned an incomplete form.¹¹ At the hearing, thirteen class members testified in opposition to the settlement. Nearly all class members desire to settle the suit;¹² however, objections have been made to a few specific terms of the settlement.

¹⁰ The number of actual responses received is somewhat higher; however, some plaintiffs submitted multiple responses, which have not been counted towards the total number of responses received.

¹¹ On November 13, 2009, plaintiffs' counsel filed a third supplemental brief that included additional responses that were received – five objections and one that expressed no opinion were forwarded to the court.

¹² "I will tell you right now that I am for settling and finding a way to settle it. I am opposed to the terms." Tr. 61:5-7 (Stan Graves); "I am very much in favor of the settlement. . . . [W]e can make this settlement agreement more palatable to

Approximately sixteen percent of the class responded to the Notice. Counsel for plaintiffs and defendant argue that the silence of the large majority of the class should be construed as consent. The objectors, on the other hand, assert that the silence highlights the lack of “adequate information” given to class members about the contents of the Second Addendum. Tr. 82:7-22. In his September 24, 2009 letter, Mr. Graves writes that “the number of Class members that would have actually opposed the 2nd Addendum would have been much higher than those approving of it had all Class members been fairly and adequately informed.”

Objectors, also, for the first time raise the issue that they had no notice that joining the class would bind them to the class judgment. The original notice of certification and settlement, however, clearly stated that by joining the class their legal rights would be affected. On December 10, 2005, plaintiffs’ counsel made a presentation regarding the litigation during which they specifically explained that opting-in would bind the entire class to any judgment or settlement and would limit the right to sue individually. Pls.’ Suppl. Br. at 15; Ex. 18. Plaintiffs’ third supplemental brief included a copy of an insert from the Associations’ newsletter of January 2006, which specifically stated:

The settlement will not go forward unless virtually all property owners, particularly those owning property along the Gulf, agree to “opt-in”, thereby binding themselves to the ultimate outcome in the case. This “opting-in” is required by the government so that an individual property owner cannot at some future time bring his/her own separate lawsuit against the Corps.

Pls.’ Suppl. Br., Ex. 19. Furthermore, being bound to a class settlement is not particular to this settlement but instead is a common feature of class actions. *See, e.g., Devlin v. Scardelletti*, 536 U.S. 1, 9 (2002) (noting that “[t]he District Court’s approval of the settlement . . . binds petitioner as a member of the class”). The language used in this case was adequate to apprise a putative class member of the binding effect of a class judgment, and any objections to it should have been made years ago, as this was certified as an opt-in class action on January 11, 2006. Approximately 1,500 property owners, including 99% of the affected landowners on the Southern shore of Dauphin Island, took affirmative steps to become members of the class.

Joining a class action carries with it the risk that one may not be entirely happy with the outcome of the litigation. Now, after having affirmatively opted-in

more Property Owners.” Tr. 82:1-10 (Glenn Coffee); “The majority of us are actually for the settlement, but we are opposed or disagree with some of the wording” Tr. 98:15-17 (Eileen Connolly).

to the class, the objectors cannot abandon the class because they are not completely satisfied with the negotiated compromise. Several plaintiffs asked the court to let them “opt-out” or “rescind” their decision to opt-in; however, the Court of Federal Claims has no such procedures.

The court is also not persuaded by the characterization of the settlement as “measly” by some plaintiffs. As discussed above, plaintiffs would face a difficult path if they chose to litigate this suit instead of settle it. The scientific study showed that erosion was not due to the Corps’ activity, and plaintiffs would face a heightened burden of proof if they were to challenge this finding in an ADR proceeding. In light of the uncertainties of further litigation and the fact that plaintiffs could easily recover nothing, \$1.5 million is not a paltry figure. *See, e.g., Christensen*, 65 Fed. Cl. at 631 (“[T]he risks faced by each side in the litigation weigh heavily in favor of approval of the settlement.”).

The court does recognize that plaintiffs have raised valid concerns regarding the settlement. It is true that the Channel at issue could be dredged to a greater size. The objectors, however, put too much weight in this concern. Dr. Rees and James Lyons both emphasized the extreme unlikelihood of such a project ever being undertaken. Additionally, even if the Channel was dredged to the congressionally authorized limits, there may be little impact to the shoreline. Plaintiffs’ counsel, as well as Mr. Brady, the General Counsel to the Association, each contacted individual coastal engineers both of whom expressed the opinion that expansion of the Channel to congressionally authorized limits would not likely result in more erosion on Dauphin Island. Pls.’ Suppl. Br. at 9. The government could have agreed to remove these terms from the settlement, however, it is emphatically not this court’s job to rewrite the settlement or second guess its terms. *Berkley*, 59 Fed. Cl. at 681 (citing *Evans v. Jeff D.*, 475 U.S. 717, 726-27 (1986); *Hanlon v. Chrysler Corp.*, 150 F.3d 1011, 1026 (9th Cir. 1998)). The objectors correctly point out that the settlement contains a broad waiver of rights to sue for future erosion. In return for this waiver, however, *inter alia*, plaintiffs will receive a substantial amount of money that will allow them to finance a study that will hopefully result in a successful beach replenishment project.

In sum, while there are valid objections to the Second Addendum the court finds that the objections do not provide the court with a factual or legal reason to disapprove the settlement.

4. *The fairness of the settlement to the entire class*

A court must also ensure that the terms of a settlement treat the class as a whole fairly. “[A] settlement that gives uniform relief to all class members is fair if no identifiable segment can show that factual differences entitle it to a

disproportionately larger recovery.” *Berkley*, 59 Fed. Cl. at 711 (citation omitted). In this case, the settlement does not single out any particular group of plaintiffs, nor does any group merit special treatment. Thus, the settlement treats the class as a whole fairly.

5. *The fairness of the provision for attorney fees*

As with other elements of a settlement, attorneys’ fees must be reasonable. *Berkley*, 59 Fed. Cl. at 711 (stating that fees must be “fair, adequate, and reasonable”) (quoting *Staton v. Boeing Co.*, 327 F.3d 938, 959 (9th Cir. 2003)). The Court of Appeals for the Federal Circuit has not specified any particular factors to consider or any specific method for assessing the reasonableness of attorneys’ fees. *Moore*, 63 Fed. Cl. at 786.

In this case, counsel for the class will be paid out of the total settlement amount. This type of payment is not unusual for a class action. *Berkley*, 59 Fed. Cl. at 711-12; *Nat’l Treasury Employees Union*, 54 Fed. Cl. at 807. Plaintiffs’ counsel estimates that their current fees will be less than \$200,000.¹³ This represents approximately 13% of the \$1.5 million settlement. Some class members have objected to the amount of attorneys’ fees. The amount of attorneys’ fees, however, is not unreasonable. In other cases before the Court of Federal Claims, plaintiffs’ counsel in class actions have recovered similar amounts in fees. See *Christensen*, 65 Fed. Cl. at 629 (recovering 7% of the total settlement); *Moore*, 63 Fed. Cl. at 789 (recovering 34%, although class counsel had asked for 40%); *Berkley*, 59 Fed. Cl. at 712 (recovering 7% of the total settlement); *Nat’l Treasury Employees Union*, 54 Fed. Cl. at 807 (recognizing that class counsel’s request for a 10% common fund award is well below the typical 20-30% fee awards in class actions).

6. *The ability of the defendants to withstand a greater judgment, taking into account whether the defendant is a governmental actor or a private entity*

Defendant’s ability to withstand a greater judgment has little relevance here. Although the government could theoretically “always withstand greater judgment because of Congress’s ability to tax” it would ultimately fall to the taxpayers to provide the necessary funds. *Berkley*, 59 Fed. Cl. at 712-13. In addition, if the instant case went to trial and the class prevailed, the court could only award monetary damages. *Bowen v. Massachusetts*, 487 U.S. 879, 914 (1988). This settlement provides for a monetary award to be used for a beach nourishment project.

¹³ Pls.’ Br. at 19. Pursuant to the Settlement Agreement, plaintiffs’ counsel has previously been paid a portion of their attorney fees; however, this initial payment was directly from the United States and not from any settlement amount.

Considering the size of the class, each individual's share of a judgment would be small and inadequate to undertake a study and formulate a plan that would allow a reclamation of his or her property and prevention of future erosion.

After careful review of the settlement, counsels' comments, and the class members' comments, it is clear to the court that the settlement is fair, reasonable, and adequate by all measures. The proposed settlement does not satisfy every plaintiff, but this is not unusual. As the Court of Appeals for the Ninth Circuit explained, "[T]he very essence of a settlement is compromise, 'a yielding of absolutes and an abandoning of highest hopes.'" *Officers for Justice v. Civil Serv. Com'n of City and County of San Francisco*, 688 F.2d 615, 624 (9th Cir. 1982) (citing *Cotton v. Hinton*, 559 F.2d 1326, 1330 (5th Cir. 1977); *Moore v. City of San Jose*, 615 F.2d 1265, 1271 (9th Cir. 1980); *Pettway v. Am. Cast Iron Pipe Co.*, 576 F.2d 1157, 1169 (5th Cir. 1978), cert. denied, 439 U.S. 1115, 99 S. Ct. 1020, 59 L. Ed.2d 74 (1979); *Mandujano v. Basic Vegetable Prods., Inc.*, 541 F.2d 832, 835 (9th Cir. 1976)). While the "highest hopes" of objectors in this case encompass more stringent terms and a larger recovery, defendant's hopes just as surely contain less stringent terms and a smaller recovery. "[A] settlement agreement achieved through good-faith, non-collusive negotiation does not have to be perfect, just reasonable, adequate, and fair." *Joel A. v. Giuliani*, 218 F.3d 132, 144 (2d Cir. 2000).

Conclusion

For the reasons discussed above, the court finds the Second Addendum between the plaintiff class, and the United States and the State of Alabama to be fair, reasonable, and adequate. The Second Addendum to the Litigation Settlement Agreement, as proposed by the parties, is hereby APPROVED.

Plaintiffs shall file a stipulation of dismissal by December 15, 2009, as required by the Second Addendum.

IT IS SO ORDERED.

s/Bohdan A. Futey
BOHDAN A. FUTEY
Judge

X M@n 12/1/00

NATIONAL REGIONAL SEDIMENT MANAGEMENT DEMONSTRATION

DISTRICT: SAM

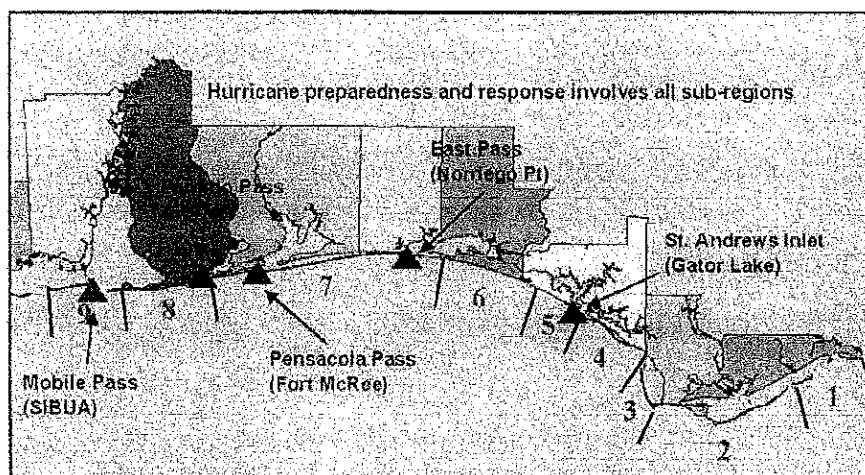
PROGRAM: NORTHERN GULF OF MEXICO REGIONAL SEDIMENT MANAGEMENT DEMONSTRATION PROGRAM

POCs: Susan Rees CESAM-PD-EC 334-694-4141
Larry Parson CESAM-PD-EC 334-690-3139
Linda Lillycrop CESAM-EN-HH 334-690-2593

PROGRAM GOALS: The goal of the Northern Mexico Regional Sediment Management Demonstration Program is to change the paradigm of project specific management focusing on a regional approach in which the US Army Corps of Engineers (USACE) in cooperation with other levels of government would stop managing projects and begin "managing the sand." The objectives of the demonstration program are:

- Implement Regional Sediment Management Practices
- Improve Economic Performance by Linking Projects;
- Development of New Engineering Techniques to Optimize/Conserve Sediment;
- Determine Bureaucratic Obstacles to Regional Sediment Management; and
Manage in Concert with the Environment.

Figure 1. Location of the RSM demonstration area, sub-regions, and initiatives



Locations of
RSM Project
Initiatives

DESCRIPTION OF REGION: The RSM the demonstration area established to represent the Northern Gulf of Mexico region (Figure 1) encompasses approximately 245-miles of coastal shoreline along the northern Gulf of Mexico bounded to the east by

the Mobile District boundary at St. Marks River in the Florida panhandle and to the west
by the western end

of Dauphin Island in Alabama. The RSM program will include future expansion into the state of Mississippi of which the exact area has not yet been fully defined. Included within the region are nine Federal projects, eight State parks, the Gulf Islands National Seashore, three military installations, and various other state and local projects. The demonstration region was divided into nine sub-regions based on coastal processes and geomorphic characteristics. The sub-regions identified in the Florida panhandle are coincident with the Florida Department of Environmental Protection's sub-regions defined in their Strategic Beach Management Plan for the Panhandle Gulf Coast Region. Individual projects were subsequently identified within each sub-region for the purpose of defining project initiatives.

DEMONSTRATION INITIATIVES:

There are many projects at various levels throughout the RSM demonstration area, each having its associated problems and management issues. It must be realized that not all of the projects and issues can be dealt with simultaneously and that the RSM process is an ongoing management program that will take years to implement on a regional level. A main focus toward implementing the RSM goals and objectives is to identify and prioritize those projects and associated issues that can be addressed in a timely manner. In doing so, many of the primary issues and concerns can be quickly solved allowing for a rapid realization of regional management benefits. The experience gained from these initiatives can then be extended to other projects throughout the region and so on. Listed below with their locations illustrated in Figure 1 are six primary initiatives that have been identified by the TWG:

Mobile Pass (Sand Island Beneficial Use Area) - In the past O&M requirements and logistics dictated placement of dredged material from the Mobile Pass navigation bar channel outside the limits of littoral processes. Disposal of the material in such locations removes it from the local littoral system. Keeping the dredged material in the littoral zone requires placement in a location where natural processes are able to move the material to the adjacent downdrift shorelines. However, the Bay entrance channel, ebb tidal shoal (bar), adjacent shorelines, and all other components are all part of a large complex system that has potential impacts to the evolution of Sand Island and the eastern end of Dauphin Island. Of particular interest is to determine how sediment moves around the ebb shoal and affects the adjacent barrier islands and navigation channel shoaling. Understanding of this process is incomplete. Alternative placement of dredged material from the bar channel requires investigation and monitoring to determine optimum placement for the return to the littoral system.

Perdido Pass - Since 1971 over 5.2 million cubic yards of sediment has been dredged from the navigation channels at Perdido Pass. Traditionally, most of this material has been placed at six disposal sites in and around the Pass. The problem lies in that much of the sandy material is slow to return to the littoral system. Some of the dredged material stockpiled west of the west jetty is being mined by locals for hurricane restoration, which

is also removed from the littoral zone. Placement of the dredged material further downdrift raises other potential problems such as private property issues and attaining easements and right-of-ways required for equipment access. Not allowing the material to be bypassed downdrift could have potential impacts to beaches further to the west or downdrift.

Pensacola Harbor (Fort McRae) - As part of maintaining navigable waterways in the vicinity of Pensacola Pass, the USACE conducts periodic dredging of the GIWW. Some of the dredged material is stockpiled on Fort McRae which is a 40 acre diked upland site created on an island in the mouth of Big Lagoon near the eastern end of Perdido Key. The disposed material appears to be of beach quality sand, however, disposal at this location does not allow the material to disburse into the local littoral system. Such material can be of benefit to the adjacent beaches of Santa Rosa Island and Perdido Key for shoreline stabilization as well as preservation of critical habitat. Use of the stockpiled sand for beach replenishment would require investigations as to the ownership of the sand and what funding sources are available to transport the material where it is needed.

East Pass (Norriego Point) - The Inlet Management Plan (IMP) for East Pass adopted by the FLDEP and the City of Destin recommends downdrift bypassing of approximately 80,000 cy of sand per year. This would require placing dredged material from the navigation channels in nearshore zone or directly on the downdrift beaches, which is the property of the USAF. Under the current maintenance practices much of the material dredged from the navigation channels is being placed on Norriego Point for stabilization, which does not allow for satisfying the recommended bypassing requirements. If the material was available for placement downdrift of the pass, the Corps does have formal authorization from Eglin AFB to place the material their property. If an alternative for shoreline stabilization at Norriego Point was implemented and the proper permissions obtained from Eglin AFB, the inlet bypassing requirements recommended by the IMP could be met. However, it is anticipated that transporting the sand downdrift would require the use of additional pipelines, which would increase the cost of the maintenance dredging operations. The use of other alternatives for protecting Norriego Point may also affect the easement currently held by the Corps.

St. Andrews Inlet (Gator Lake) - Periodic maintenance dredging of the St. Andrews Inlet navigation project is conducted by USACE. Traditionally, most of the beach suitable dredged material (84,000 cy/yr) is bypassed to the western downdrift beaches. However, some of the material (39,000 cy/yr) is placed along the western interior shoreline of the inlet fronting Gator Lake. The material is placed at this location to prevent the inlet from breaching into the environmentally sensitive freshwater habitat. Material placed along the Gator Lake shoreline does not return to the littoral system. Alternative techniques for protecting Gator Lake would allow more beach quality material to be available for bypassing to the downdrift beaches.

Hurricane Preparedness/Response - Increasing development and population of coastal

regions along the northern Gulf of Mexico necessitates a need for storm preparedness as well as rapid damage assessment and response. Increased storm activity will, sooner or later, have devastating effects to the highly developed and populated coastal areas throughout the RSM Demonstration region. Rapid post-storm damage assessment of severely impacted areas is necessary to expedite recovery operations such as emergency repairs to beaches, navigation channels, and coastal structures.

UNIQUE ASPECTS OF THE STUDY: Implementation of the RSM program will result in the modification of procedures on how the Mobile District manages coastal projects. The program will develop and implement management tools that have never before been accomplished on a regional scale. Such tools will include a working regional sediment budget, calibrated regional prediction modeling system, regional data management and GIS, implementation of regional management practices, and a regional sediment management plan. The RSM program will also identify and assess benefits of managing coastal projects at the regional scale. The benefits analysis will not only consider the typical economic benefits used to evaluate the Federal objectives, but will also consider aesthetic and environmental benefits as well. The program will bring together numerous Federal, state, and local agencies, universities, and private entities toward focusing on implementing the RSM concept.

PARTNERS: To steer the program towards the goals and objectives, a RSM Technical Working Group (TWG) was established with participants from Alabama and Florida, key Federal agencies, and local academia. The purpose of the TWG is to assist in the development and direction of the RSM Program and to identify and oversee implementation of program initiatives. Members of the TWG included:

- Florida Dept. of Environmental Protection (FDEP)
- USACE, Engineering Research Center (ERDC)
USACE, Jacksonville District (SAJ)
- NOAA/National Data Buoy Center (NDBC)
- Geological Survey of Alabama (GSA)
- Florida Geological Survey (FGS)
- US Geological Survey (USGS)
- US Air Force - Eglin AFB
- US Navy
- Gulf Islands National Seashore
- University of Florida
- University of South Alabama
- Federal Emergency Management Agency (FEMA)
- Alabama Emergency Management Agency (AEMA)
- Minerals Management Service (MMS)
- Alabama Dept. of Conservation and Natural Resources (ADCNR)
- Alabama Dept. of Environmental Management (ADEM)
- Alabama Coastal Erosion Task Force (ACETF) - South Alabama Regional Planning Commission (SARPC)

FEDERAL CONGRESSIONAL DISTRICT REPRESENTATIVES AND SENATORS:

Alabama

Sen. Richard Shelby
Sen. Jeff Sessions
Rep. Sonny Callahan

Florida

Sen. Bob Graham
Sen. Connie Mack

Mississippi

Sen. Thad Cockran
Sen. Trent Lott
Rep. Gene Taylor

STATUS: The Northern Gulf of Mexico RSM program is entering into its second year. Three Technical Working Group meetings were held to provide program direction. Two CERB briefings were also given to inform the board of program status and obtain additional direction. Numerous other accomplishments have been achieved including a historical data search; a regional baseline consisting of bathymetric and topographic data, beach profile data, and aerial photography; development of regional Geographic Information System (GIS) by the Mobile District Spatial Data Branch to manage all of the data and information; sediment budget to determine regional initiation of a regional sediment migration and trends; sub-regional workshops to inform and solicit involvement of local interests; and submittal of a proposal to investigate benefits of using IKONOS digital satellite imagery as a regional data collection tool. Also underway is the identification of economic and environmental benefits as a result of regional sediment management.

PRODUCTS:

TITLE	SCH RESCHD COMP	
CERB Briefings	9910 0006	9910 0006
Historical Data and Information	0109	ONGOING
Regional Baseline	0009	0009
Regional Data Management and GIS	0009	ONGOING
Sub-regional Workshops	0008	0008
Regional Sediment Management Plan	0009	0101
Working Regional Sediment Budget	0109	

Calibrated Regional Prediction System

0209

Implementation of Regional Management Practices 0209

FUNDING (K\$):

	FY00	FY01	FY02	FY03	FY04	TOTAL
TOTAL	1000	800	1500	0	0	2600

MANAGEMENT DEMO AREA
AN-ID SUB-REGIONS

11

11

Mobile	scambi	Santa Rosa	Okaloosa	Walton	11	
					5	
					5	
						Fro_ 1
						2

DAUPHIN ISLAND PROJECT
STUDY MATRIX

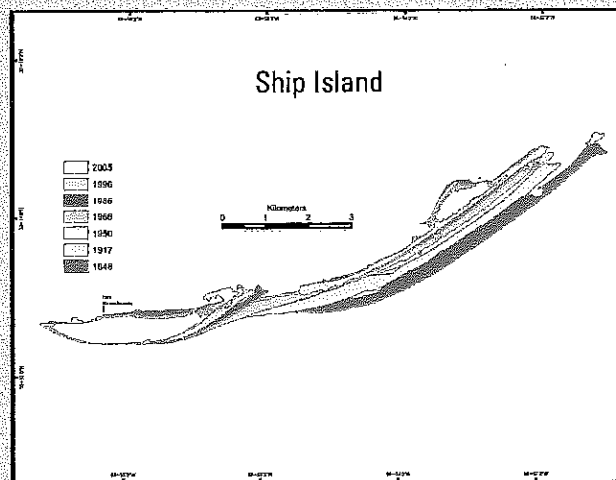
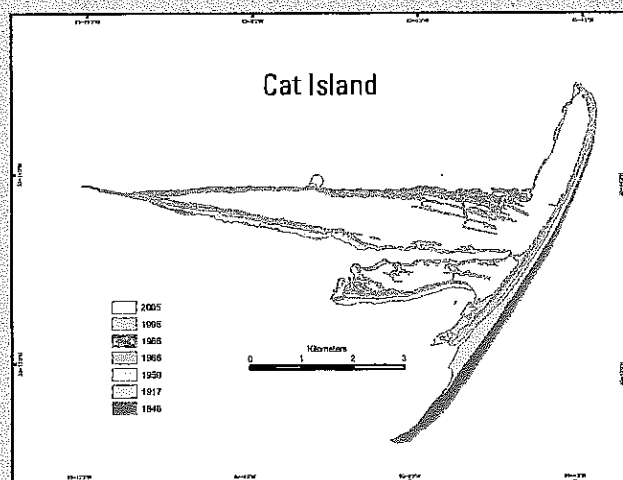
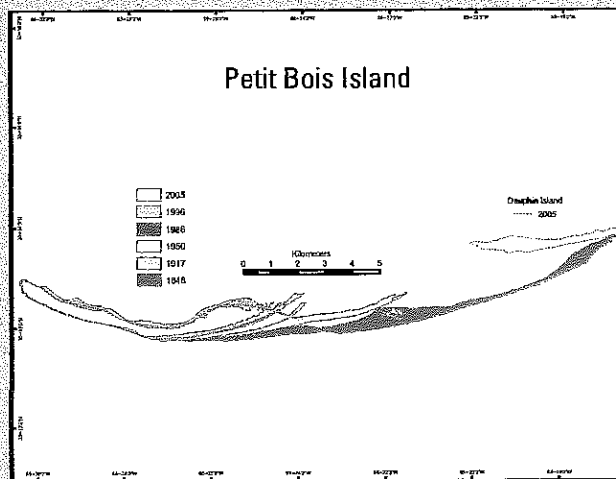
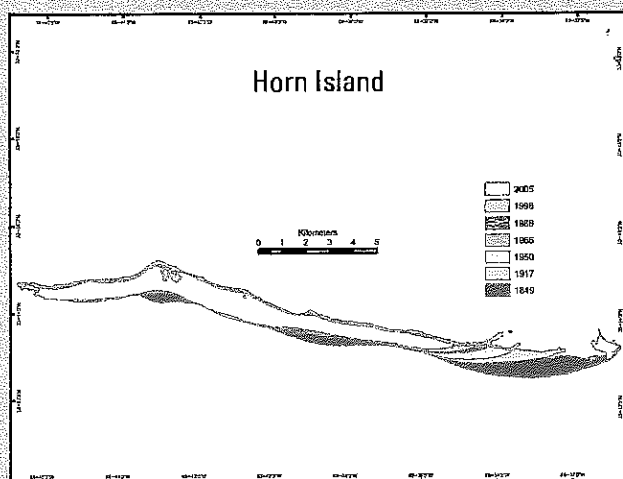
zii4J" At	Regional Sediment Management	DIPOA'	OTHER	MH GRR ²	Section 103 ²	Section 111 ²
Surveys and Maps						
Hydrographic survey of channel (acoustic impedance survey data)		x		x		x
Historic			x			
Future			ongoing			
Beach Profiles - Mobile Co.	Collected (00) need OC, additional needed funding not yet identified	x		x	x	x
Beach Profiles - Baldwin Co.	Collected (00) need QC, additional needed funding not yet identified	x		x	x	x
Ebb Shoal Survey	additional needed funding not yet identified	x	complete (00)	x		x
Topographic Shoreline Survey Daupin Island	Collected (00), not processed, additional needed funding not yet identified	x		x	x	x
Topographic Shoreline Survey Fort Morgan	Collected (00), not processed, additional needed funding not yet identified	x		x		x
Monitoring SISUA						
Multibeam surveys	Collected (99/00), Planned (01)	x	x	x		x
ADCP transects	Collected (00), Planned (01)	x	x	x		x
Sediment sampling	Collected (99/100), Planned (011)	x	x	x		x
Hydrology and Hydraulic Studies						
Historical Conditions						
Historical Information	Ongoing	x			x	x
Historical survey data	Ongoing	x			x	x
Historical shoreline trends	Ongoing	x			x	x
Calculate volumetric changes	Ongoing	x			x	x
Historical sediment budget	Ongoing	x			x	x
Historical sediment pathways/patterns	Ongoing	x			x	x
Evaluate historical changes to ebb shoal/entrance channel		x				x
Evaluate historical feature/berm migration		x				x
Evaluate historical migration of barrier island chain		x				x
Historical Accident Reports	NA	NA		x		x
Historical aerial photography	Obtained, not rectified	x			x	x

Maintenance Dredging Records	x	x	inhouse, needs compiling	x		x
Historical Conditions - Tides, Currents, Waves, Winds, storm parameters.	Ongoing	x			x	x
Existing Conditions						
Existing Physical Conditions - Tides, Currents, Waves, Winds, surge	Ongoing	x		x	x	x
Existing shoreline	Ongoing	x		x	x	x
Existing sediment budget	Ongoing	x		x		x
Navigation Channel Characteristics	NA	NA?		x		x
Existing Maintenance Dredging Requirements	x	x	Complete	x		x
Design Vessel	NA	NA		x		
Pipeline and Cable Permits	NA	NA		x	x	x
Quantities of materials to be dredged	NA					
Existing conditions aerial photography	Collected by state of AL, not rectified, not inhouse	x		x	x	x
Existing subsurface data and surveys	NA	NA		x	x	x
Develop basemap	Ongoing	x		x	x	x
ADCP currents through mobile pass	x	x		x	x	x
Collect directional wave information	Have offshore gage, nearshore required, funding not identified	x		x	x	x
Sediment sampling ebb delta, nearshore, beaches	x	x		x	x	x
W/Project Improved						
Navigation channels, bends, maneuvering and berthing areas at several alternative depths and/or widths	NA	NA		x		
Maintenance Dredging Requirements	NA	NA		x		
Quantities of beach fill required	NA	NA			x	x
Engineering design analysis	NA	NA		x		x
Structural Design and Analysis	NA	NA		x	x	x
Sediment budget based on alternatives	NA					
Design Drawings (plans and cross section)	NA	NA		x		
Geotechnical Analyses						
Map 4, profile sections	NA	NA		x		
characteristics (Plan Sheets)	NA	NA		x		
Soil Laboratory Tests	NA	NA		x		
Slope Stability Analysis with Changing Depths in Channel	NA	NA		x		
Fill material requirements for disposal area dikes	AMA	NA		x		
Contour Maps of extent of contaminated areas (depth, lateral)	NA	NA		x		
Hydrodynamic Modeling (MH)						
Water Surface Data				x		
Velocity Data				x		
Salinity Patterns Data	NA	NA		x		
Shoaling Problems of Area	NA	NA		x		
Sedimentation Processes		x		x		
Hydrodynamic Modeling (Coastal)						
Sediment Processes	x	x		x	x	x

SBEACH		x			x	x
STWAVE	Sub-region level only	x		Project	Project	Project
GENESIS	Sub-region level only	x		Project	Project	Project
ADCIRC	Sub-region level only	x		Project	Project	Project
Ship Simulation Study	NA	NA		x		
Environmental Hydrodynamic Model	NA	NA		x	x	x
Water Quality, Sediment, Salinity	NA	NA		x	x	x
Resource Inventory Report	NA	NA		x	x	x
Mitigation Analysis Report	NA	NA		x	x	x
Section 404(b)(1)	NA	NA		x	x	x
Sediment Suitability	NA	NA		x	x	x
401 State Water Quality Certification	NA	NA		x	x	x
Section 103	NA	NA		x	x	x
Coastal Zone Management Consistency Determination Report	NA	NA		x	x	x
Tasks that SAM feels are relevant						
totiliftittits included in Project Study						
Plans						

HISTORICAL CHANGES IN THE MISSISSIPPI-ALABAMA BARRIER ISLANDS AND THE ROLES OF EXTREME STORMS, SEA LEVEL, AND HUMAN ACTIVITIES

Robert A. Morton



Open-File Report 2007-1161

U.S. Department of the Interior
U.S. Geological Survey

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Coastal and Marine Geology Program

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SUMMARY

An historical analysis of images and documents shows that the Mississippi-Alabama (MS-AL) barrier islands are undergoing rapid land loss and translocation. The barrier island chain formed and grew at a time when there was a surplus of sand in the alongshore sediment transport system, a condition that no longer prevails. The islands, except Cat, display alternating wide and narrow segments. Wide segments generally were products of low rates of inlet migration and spit elongation that resulted in well-defined ridges and swales formed by wave refraction along the inlet margins. In contrast, rapid rates of inlet migration and spit elongation under conditions of surplus sand produced low, narrow, straight barrier segments.

Since the mid 1800s, average rates of land loss for all the MS islands accelerated systematically while maintaining consistency from island to island. In contrast, Dauphin Island, off the Alabama coast, gained land during the early 20th century and then began to lose land at rates comparable to those of the MS barriers. There is an inverse relationship between island size and percentage of land reduction for each barrier such that Horn Island lost 24% and Ship Island lost 64% of its area since the mid 1800s. Ship Island is particularly vulnerable to storm-driven land losses because topographic and bathymetric boundary conditions focus wave energy onto the island. The three predominant morphodynamic processes associated with land loss are: (1) unequal lateral transfer of sand related to greater updrift erosion compared to downdrift deposition, (2) barrier narrowing resulting from simultaneous erosion of the Gulf and Sound-side shores, and (3) barrier segmentation related to storm breaching. The western three fourths of Dauphin Island are migrating landward as a result of storms that erode the Gulf shore, overwash the island, and deposit sand in Mississippi Sound. Petit Bois, Horn, and Ship Islands have migrated westward as a result of predominant westward sediment transport by alongshore currents, and Cat Island is being reshaped as it adjusts to post-formation changes in wave and current patterns associated with deposition of the St. Bernard lobe of the Mississippi delta.

The principal causes of barrier island land loss are frequent intense storms, a relative rise in sea level, and a deficit in the sediment budget. The only factor that has a historical trend that coincides with the progressive increase in rates of land loss is the progressive reduction in sand supply associated with nearly simultaneous deepening of channels dredged across the outer bars of the three tidal inlets maintained for deep-draft shipping. Neither rates of relative sea level rise nor storm parameters have long-term historical trends that match the increased rates of land loss since the mid 1800s. The historical rates of relative sea level rise in the northern Gulf of Mexico have been relatively constant

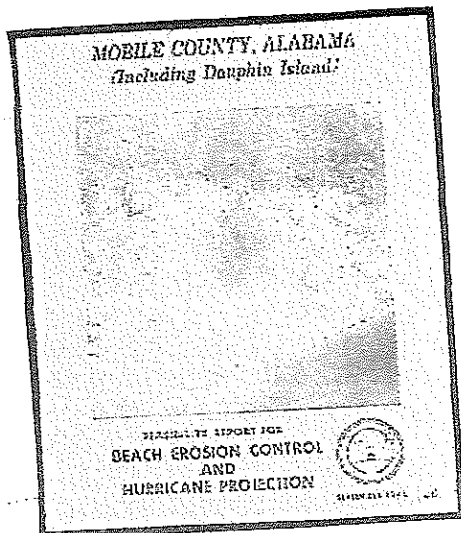
and storm frequencies and intensities occur in multidecadal cycles. However, the most recent land loss accelerations are likely related to the increased storm activity since 1995.

Considering the predicted trends for storms and sea level related to global warming, it is clear that the barrier islands will continue to lose land area at a rapid rate without a reversal in trend of at least one of the causal factors. The reduction in sand supply related to disruption of the alongshore sediment transport system is the only factor contributing to land loss that can be managed directly. This can be accomplished by placing dredged material so that the adjacent barrier island shores receive it for island nourishment and rebuilding.

INTRODUCTION

Barrier island chains in the northern Gulf of Mexico extending from Mobile Bay, Alabama to Atchafalaya Bay, Louisiana are disintegrating rapidly as a result of combined physical processes involving sediment availability, sediment transport, and sea level. The cumulative areas and rates of land loss from these ephemeral features are, to some extent, expected because present physical conditions are different from those that existed when the islands first formed. For example, during the past few thousand years sediment supply has diminished, rates of relative sea level rise have increased, and hurricanes and winter storms have been frequent events that generate extremely energetic waves capable of permanently removing sediment from the islands. These processes continuously act in concert, increasing rates of beach erosion and reducing the area of coastal land.

At greatest risk of further degradation are the barrier islands associated with the Mississippi delta that include the Chandeleur-Breton Island, Timbalier Island, and Isle Dernier chains in Louisiana. These chains of individual transgressive barrier island segments have progressively diminished in size while they migrated landward (McBride and others, 1992). In contrast are the Mississippi-Alabama (MS-AL) barrier islands (Fig. 1) that are not migrating landward as they decrease in size. Instead, the centroids of most of the islands are migrating westward in the direction of predominant littoral drift through processes of updrift erosion and downdrift deposition (Richmond, 1962; Otvos, 1970). Although the sand spits and shoals of the MS-AL barriers are being transferred westward, the vegetated interior cores of the islands remain fixed in space. Rucker and Snowden (1989) measured the orientations of relict forested beach ridges on the MS barriers and concluded that the ridges and swales were formed by recurved spit deposition at the western ends of the islands.



Mobile County, AL
(Including Dauphin Island) Feasibility
Report for
Beach Erosion Control And
Hurricane Protection
US Corps of Engineers, Sept. 1978

Excerpt Page 130

✓ 183. The principal causes of shore erosion along the western-most 11 miles of Dauphin Island are attributable to rise in sea level and maintenance dredging of the Mobile Bay entrance channel. Based on sea level stages recorded at Biloxi, Mississippi, the rates of rise of sea level between 1896 and 1972 and between 1940 and 1972 were .009 feet per year and .012 feet per year respectively. These data are shown on Plate II. Per Brunn, in the reference, Sea-Level Rise as a Cause of Shore Erosion, proposed the following formula for computing the rate of shoreline recession from the rate of sea level rise:

SAMPD-N

9 July 1975

Honorable Jack Edwards
House of Representatives
Washington, DC 20515

Dear Mr. Edwards:

For your information I am inclosing a copy of the transcript of the Workshop Meeting on Beach Erosion Control and Hurricane Protection for Mobile County held at Bayley's Ranch on 31 March 1975. I appreciate your attendance at the meeting and interest you have demonstrated in this study.

As you recall, little interest was exhibited at the meeting for structural plans that could be implemented under existing Federal authorities for beach erosion control. These authorities require the establishment of public property and public access to the shoreline as a condition for any significant Federal financial participation in a beach erosion control project. As indicated at the meeting, the establishment of public shoreline property would be strongly opposed by existing waterfront property owners. Furthermore, preliminary studies indicate that protection of the sparsely developed shoreline would not result in the necessary economic benefits to justify the construction of costly structures for beach erosion control and hurricane protection.

While structural measures specifically for beach erosion control are indicated to be economically unjustified and to have unacceptable social and community impacts, the need for protection of the shoreline was emphasized. Substantial interest was indicated in the concept of deposition of unconfined dredged material from the ship channel along the west bay shoreline and Dauphin Island for the abatement of erosion.

The prospect for satisfactorily alleviating erosion problems on Dauphin Island by depositing the sandy material dredged from the Mobile Bay entrance channel upon the Gulf shoreline of the island appears promising and will be pursued. The viability of depositing future "new work" material dredged from the ship channel within Mobile Bay upon the western shoreline cannot be determined without estuarian and other environmental impact studies but is considered meritorious of further consideration. Under the above concepts the eroding shorelines would be nourished by the

Appendix B

SAMPD-N
Honorable Jack Edwards

9 July 1975

dredged material primarily as disposal areas in support of the maintenance and modification of the Mobile Harbor navigation project. This plan would preserve any accreted land as the property of adjoining land owners and limit local costs resulting from the accreted land, to the amount required for necessary stabilization and a portion of the cost allocated to land enhancement. Therefore, the options for nourishment of the eroding shorelines with material dredged from the ship channel would be more appropriately considered under our ongoing study of navigation modifications for Mobile Harbor rather than under the study for beach erosion control and hurricane protection.

In view of the indications of the workshop meeting, further consideration for deposition of the dredged material from the ship channel along the eroding shorelines under the ongoing survey study for modification of the existing Federal project for Mobile Harbor is indicated to be warranted in lieu of the authorized beach erosion control and hurricane protection study. Since our study has not indicated any other likely structural alternatives for beach erosion control and hurricane protection, and in accordance with Corps' policy to apply our limited study funds where they can be most productive, I am proposing to conclude our beach erosion and hurricane protection study for Mobile County. A concise report which will address the foregoing considerations along with the finding that no additional Federal structural improvements are warranted at this time in the interest of beach erosion control and hurricane protection can be completed with programmed fiscal 1976 study funds. Any remaining surplus funds could be transferred to other studies. In lieu of this option, deferral of future studies into an inactive study category is indicated.

I plan to notify the Mobile City and County Commissions of our proposal to terminate the study in the near future, but, in the interim, would appreciate any views or comments you may have regarding the study and proposed course of action.

Sincerely yours,

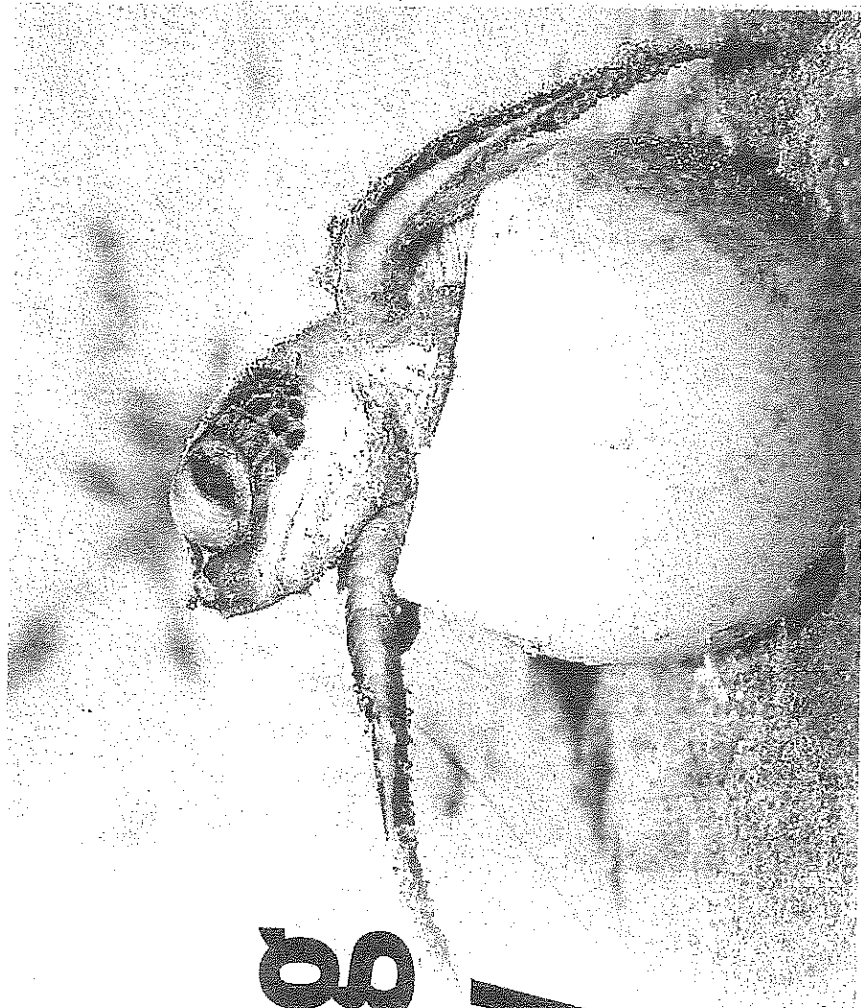
1 Incl
As stated

DRAKE WILSON
Colonel, CE
District Engineer

THIS IS ALABAMA

Showing the way

SHARE THE BEACH IS TRYING
TO PROTECT NEWBORN
LOGGERHEAD SEA TURTLES
ALONG ALABAMA'S GULF COAST



At birth, loggerhead sea turtles are about 2.5 inches long. When fully grown, they can weigh 400 pounds. Babies will swim out to sea, halfway around the world during a two-year journey deep into the Atlantic Ocean. Females will return about 25 years later to within 2 miles of their birthplace to lay eggs. But once leaving the nest and finding the surf, baby males will never set foot on land again. *Share the Beach*

Late night on Alabama's coastal shores is a scene of quiet beaches in nocturnal stillness. Or so it seems. What lies beneath the sand is a different story.

On any given summer evening a tiny reptilian nose may be below the surface. The newly hatched lookout loggerhead sea turtle has a mission: signal fellow babies in the 20-inch deep hole when the coast is clear. From underneath the earth, it feels the beach has cooled, signifying nighttime to the turtles and, in turn, mobilizing them.

The lead turtle is the first to emerge. Soon after, 112 more turtles follow, all bubbling out from the sand like grits in a boiling pot.

It is an amazing sight witnessed by few, and Mike Reynolds is a member of this exclusive club. As head of Share the Beach, he leads 450-plus volunteers dedicated to saving Alabama's coastal sea turtles from extinction.

In January 2018, Share the Beach united under the umbrella of the Alabama Coastal Foundation (ACF), an organization that addresses coastal conservation issues. "We are happy to work with Mike and his great volunteers," said Mark Berte, executive director of ACF. "Share the Beach fits our mission statement nicely: to improve and protect Alabama's coastal environment through cooperation, education and participation." ACF will write grants and raise money for the group, but as Berte noted, "Share the Beach will run exactly the same this year as last year, still under Mike's federal permit to handle wild turtles."

"I am fortunate to have dedicated volunteers," added Reynolds, known locally as "the turtle czar."

"They patrol 50 miles of beaches from the Florida state line to the tip of Dauphin Island daily from May to October (nesting season). They look for tracks leading to nests that need protect-

ing during a critical time — hatching." Protecting the nests is an important mission for a few reasons.

After digging out from underground, always at night, baby turtles look for and follow light — any light. Natural light saves their life. Artificial light can end it.

To turtles, illumination is interpreted as moonlight reflected on waves. It means home and safety. But on Alabama's coastline, light beacons can be vending machines, condo floodlights or even a beach party.

"Babies go to those sources looking for the ocean they will never find," the turtle czar said. "They die from exhaustion or starvation, are run over by cars or killed by ants."

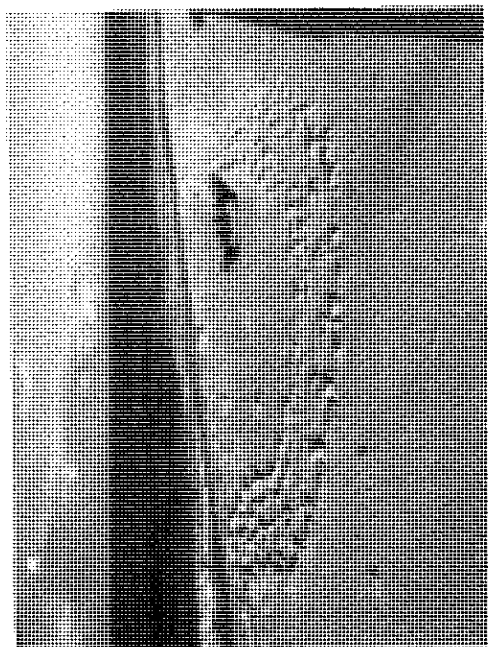
When you combine natural predators with man-made hazards, Reynolds estimates about one out of 1,000 hatchlings will see adulthood. Share the Beach is concerned about this stat.

Group volunteers monitor nests, watching closely when newborns hatch and make their way to the surf. Baby reptiles are not touched by human hands unless absolutely necessary.

"Unfortunately, a critical part of a turtle's life cycle involves nesting on sandy beaches — the same places people nest," Reynolds added. Man and turtle can coexist, but there are reasons for concern.

"Our area is down to 47 nesting females," Reynolds notes. "Once gone, they are gone forever."

Since 2003, more than 50,000 sea turtles have hatched along Alabama's shoreline. Many got by with help from Share the Beach and Reynolds, who watched their nests, protected baby turtles and showed them the light.





STATES:

Ala.'s Dauphin Island meets 'Years of Living Dangerously'

Daniel Cusick, E&E reporter

ClimateWire: Friday, July 18, 2014

Second of a three-part series. [Click here](#) for the first part.

DAUPHIN ISLAND, Ala. -- It's the kind of stormy summer day on Alabama's Gulf Coast when Fae Chamblin, 72, can sit under the thatched-roof shelter of Dauphin Island's West End Public Beach and count by hand the number of visitors entering the park with front-door views of the Gulf of Mexico.

As a volunteer attendant and informal ambassador for Dauphin Island, Chamblin embodies the kind of down-home warmth and salty personality that come with years of coastal living. Yet behind her platinum hair, freckled tan and welcoming smile, she is also counting the days until her beloved barrier island gives way to the sea.

"A government geologist came down here one time and said we were either going to sink or wash away," Chamblin said. "I told him, 'It's already happening.'"

SPECIAL SERIES



An occasional series showing that although Congress remains divided over dealing with climate change, some states and cities are moving to adapt to more frequent storms, floods, drought, and rising temperatures and sea levels. Others aren't.

Indeed, coastal experts and longtime residents know that Dauphin Island is in a race against time, its fate to be determined by sea-level rise, future hurricanes and the dredging practices of the Army Corps of Engineers, which maintains the 45-foot-deep Mobile Bay ship channel on the island's eastern flank, effectively excavating underwater sand that would naturally migrate to the island's beaches.

Nowadays, Chamblin spends two days a week at West End Public Beach, collecting visitor entry fees, operating the snack bar and doing what she admittedly likes to do best -- talk about her imperiled island.

"Have you seen that show 'Years of Living Dangerously'?" Chamblin asked, referring to the recent Showtime documentary series that relies on celebrity narrators to explain how climate change is affecting people, environments and resources around the world.

"That's what we've got right here," she said, pointing to the slim, seaweed-strewn beach, where the waves at high tide break within 30 yards of the parking lot.

Advertisement

Coastal erosion, storm surge and sea-level rise are all conspiring to wash the island away, or at least dismember it to such a degree that it no longer functions as a hurricane buffer, wildlife sanctuary, historic site or prime vacation spot. The breakup of Dauphin Island would also be one of the only known cases of a U.S. municipality giving up substantial parts of its landmass to the sea and put the state in the untenable position of seeing nearly half of its seashore lost or reconfigured, with huge implications for tourism, fisheries, transportation, commerce and hurricane resilience.

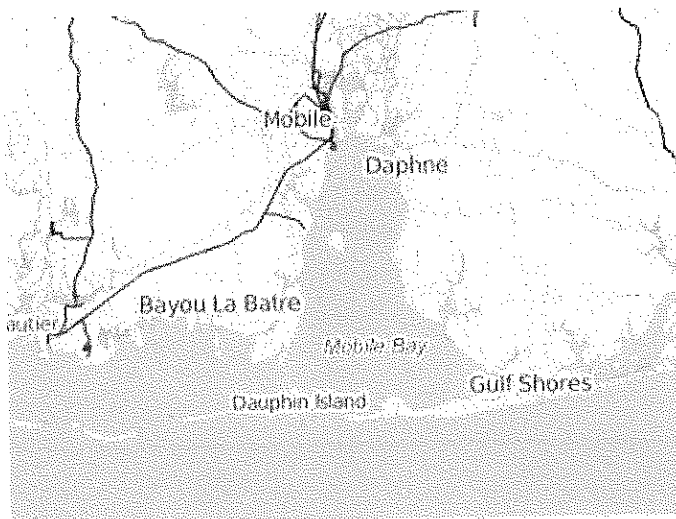
Silence from Montgomery

Yet the state of Alabama is doing almost nothing to protect Dauphin Island and its roughly 1,300 residents from what experts believe is an avoidable outcome. In fact, the antidote to the problem of eroding beaches, called "beach nourishment," has been used successfully in other places around the country, including just a few miles east of Dauphin Island at Gulf Shores, where sand was pumped a decade ago to bring the high-rise beach resort city back to its former glory.

But in the case of Dauphin Island, which has only a fraction of the tax base and none of the high-rise condos of Gulf Shores, critics say the state won't take its head out of the sand.

Located 40 miles down the bay from Alabama's port city, Mobile, Dauphin was a populated and historic fixture in the region long before it became part of the United States around the War of 1812.

It was from these very shores in 1864 that Confederate troops tried but failed to turn back the U.S. seizure of Mobile Bay. The event added to the legend of the Union Navy's rear admiral, David Farragut, who rallied his fleet with: "Damn the torpedoes, full speed ahead!"



Dauphin Island, Ala. A historic island may soon be history.

In modern times, Dauphin Island has suffered from increasing blows from nature's torpedoes, including a direct hit from Hurricane Frederic in 1979 and indirect blows from a half-dozen more hurricanes. The last one, 2005's Hurricane Katrina, leveled seaside houses, flattened sand dunes, peeled pavement off the island's roads and destroyed the vegetation that once helped hold the very island together.

Then, in 2010, Dauphin was among the string of Gulf islands to be coated with oil washing ashore from BP PLC's ill-fated Deepwater Horizon platform, an event that cost the island tens of millions of dollars in lost tourism. It also cost Chamblin her business: Flamingo Fae's Beachside Grill and Tiki Bar.

In what some consider a hasty move to buffer the island from oil, local leaders approved an emergency excavation of several million tons of sand from 22 large pits on the island's backside to construct a berm across the Gulf side. The berm has long since washed away, but the pits have now become water features, effectively thinning the island at another critical point.

From his office on Mobile Bay's eastern shore, Scott Douglass isn't at all surprised by what he sees occurring on Dauphin Island, a place he has studied for 25 years since joining the civil engineering faculty at the University of South Alabama in Mobile and later as a private consultant advising similarly affected coastal communities around the region, including Gulf Shores.

But he is mystified by the nonresponse to Dauphin Island's plight from state officials in Montgomery.

Older houses already swept away

Despite repeated warnings, including in face-to-face meetings with Gov. Robert Bentley (R) and senior Cabinet officials, about the inevitability of the island "falling apart" over the next decade, Douglass has been unable to garner support for a plan that he believes could save the island or at least buy it another 100 years of existence.

"Barrier islands have a way to adapt to sea-level rise, and they've been doing it for about 6,000 years," Douglass said. "But these islands aren't just shifting sandbars anymore. They're fixed landscapes where subtle changes can make a big difference."

According to blueprints drafted by Douglass for the town of Dauphin Island, contractors could pump fresh sand from offshore deposits in the Gulf of Mexico onto Dauphin Island's eroded beaches, essentially reconstructing and raising the beach's profile in a way that is more permanent than the berm intended to block oil from overwhelming the island.

Such a nourishment project would cost \$30 million to \$70 million, according to Douglass, with much of the attention going to a 4-mile stretch of beach where private homes are built atop wooden pilings to allow storm surges to pass underneath.

In fact, many of the original seaside homes are gone, literally lost to the sea. Others have been physically moved and set atop newer, stronger pilings on what used to be higher ground. But even with the setbacks, many of the relocated homes are going seaward again, along with new properties that have been built or rebuilt after each hurricane.

"We spent \$1 billion putting sand on New Jersey's beaches last year [after Superstorm Sandy], and people who complained were told by the governor [Chris Christie] to get behind the program or get out of the way," Douglass said. "Here in Alabama, we can't get the governor to agree to put any money behind saving a barrier island that you can drive to and where people live. I just don't get it."



Fae Chamblin, a volunteer attendant at Dauphin Island's West End Public Beach, has watched her island disappear, bit by bit, for 28 years. Photo by Daniel Cusick.

Calls and emails to the governor's office to ask about Dauphin Island's erosion and the state's position on climate change went unanswered.

Pat Robbins, a spokesman for the Army Corps of Engineers district office in Mobile, said the agency does in fact place dredged sand in a "beneficial use area" south and east of Dauphin Island, where it can migrate through currents to sand-starved beaches. But the Army Corps has no formal monitoring program to ensure that the sand is reaching its intended targets.

Asked whether Dauphin Island was being aided by the Army Corps' dredge operation, Robbins said, "Parts of it are, parts of it aren't. That's just typical of barrier islands."

In an interview, John Christy, the Alabama state climatologist, said of Dauphin Island: "I don't understand why people build on sandbars. They are dynamic things. They are not fixed. They will move. They will decay. They will grow. And trying to nail one down by building houses on it, we're fighting Mother Nature."

'Everything out here could be gone'

As for sea-level rise, Christy, who is also a distinguished professor of atmospheric science at the University of Alabama, Huntsville, said it's not the 1 inch per decade of rising ocean that Dauphin islanders need to worry about. "It's the 15 feet [of storm surge] that comes in with the next hurricane. And if you're not resilient to that, it doesn't matter what climate change is going to do," he said.

But people who live and own property on the island are doing all they can to make a case for their continued existence -- a concept known in climate change policy circles as "adaptation." And they believe they have a solution that other states, like New Jersey and Mississippi, are already implementing to protect their coasts.

Rather than remove sand from the system, like the Army Corps does to maintain the Mobile Ship Channel, Dauphin Islanders say they should receive all suitable material removed from the channel and more still from offshore sand deposits that could be pumped to the island via underwater conduits, just as is being done on a series of similarly battered barrier islands in neighboring Mississippi.

"We see that as one of the best things we can do to protect ourselves," said Jeff Collier, 53, the town's part-time mayor of 16 years. "If we don't do it, then everything out here could be gone."

A 2013 analysis on Dauphin Island from the Mississippi-Alabama Sea Grant Legal Program reached similar conclusions, noting that the island has "already experienced impacts from changes to the climate, and these changes and impacts are expected to continue into the future."

Yet when asked about the relationship between Dauphin Island's fragile condition and climate change, the mayor chose his words carefully. "If you ask me if climate change is responsible the problems we have out here, I would say, 'I don't know,'" Collier said. "But I do believe we need to plan for the future as if it is happening. If we don't, we could lose everything."

But there are others in Alabama who view Dauphin Island's fate on different terms and who believe any relationship between the island's slow destruction and climate change is an abstract scientific theory looking for a landscape to fit its fuzzy assumptions.

Such arguments, made by residents like Mobile native J. Pepper Bryars, a former press secretary and speechwriter for Alabama's last governor, Bob Riley, in a recent op-ed in the *Mobile Press-Register* is that barrier islands like Dauphin Island are ephemeral landscapes, where "every few years it shifts, shakes and remakes itself like Mother Nature's personal Etch-a-Sketch."

It's Mother Nature, not climate change

As for the role that human-induced climate change has in aiding that process, Bryars and like-minded Alabamians remain deeply skeptical.

They point to data compiled by Christy, the state climatologist, that show Alabama's climate has experienced only modest warming over the last half-century and that extreme weather events happen with no greater frequency or intensity than they ever did.

"Why are the changes and threats any different from past decades? Global warming advocates usually rely on two arguments: There's been a lot of bad weather lately, and the computer models show it's only getting worse," Bryars wrote.

"But is that accurate, at least on a global scale? No," he added.



Some Dauphin Island homeowners build bulkheads to slow beach erosion, but experts think they may even accelerate erosion of adjacent properties. Photo by Daniel Cusick.

In a subsequent email exchange, Bryars acknowledged that "parts of Dauphin Island may be in greater danger of erosion that they were a few decades ago, but how about a few centuries ago? We must understand that the shoreline now wasn't what Mother Nature made 500 years ago, and it won't be what she makes 500 years from now, either."

On the question of beach nourishment, Bryars added, "We may win, but it may come at a great cost. Residents and taxpayers will have to weigh the gains, risks and costs as the battle continues."

But other experts, including Douglass, say the battle for Dauphin Island, and much of the rest of the Alabama coast, hasn't really begun.

Since discussion of the need for large-scale remedies on Dauphin Island began a decade ago, after Hurricane Ivan, critics say Alabama has repeatedly missed opportunities to address the problem either through direct spending or by leveraging federal or private money that poured into the coastal zone after Hurricane Katrina and the BP oil spill.

And in fact, they say, Alabama's coastal zone has become much more vulnerable both to extreme events like hurricanes as well as from often indiscernible changes in conditions, such as those created by strong tides, boat wakes, and even moderate wind and waves that churn Mississippi Sound and cause water to cross the low highway linking Dauphin Island to the mainland.

Douglass noted that the absence of a hurricane along the Alabama coast for nearly a decade makes the extreme erosion experienced by Dauphin Island even more alarming.

From his perspective, Dauphin Island and much of the rest of coastal Alabama has avoided catastrophic losses only by a combination of luck, pluck and the piecemeal efforts of private individuals and local agencies that have answered worsening conditions with impermanent fixes like riprap, bulkheads and truckloads of backfill to build up their eroding properties.

"With every storm, we're losing more sand on Dauphin Island," Douglass said. "If we get a big storm in here, we're going to lose a lot more than one island. That whole stretch of coast will just fall apart."

Monday: A message no one wants to hear.

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Monday: A message no one wants to hear.

Mobile Harbor Outer Bar Channel Dredging History (1980-2009)

(Source: U.S. Army Corps of Engineers)

Dredge Date	Gross Quantity Dredged (yd ³)	Disposal Area Used ^{1/}
Feb-Dec 1980	1,129,337	Ocean DA
Jan-Mar 1981	610,623	Ocean DA
Dec 1982-Jan 1983	312,408	Ocean DA
Jan-Nov 1984	559,607	Ocean DA
Aug-Oct 1985	1,386,536	Ocean DA
Jan-Feb 1987	656,089	Ocean DA
Feb 1989-May 1990	^{2/} 6,755,352	Ocean DA
Aug-Sep 1992	466,607	Ocean DA
Nov-Dec 1995	621,172	Ocean DA
Aug-Dec 1997	710,996	Ocean DA
Sep-Oct 1998	1,279,780	Ocean DA
Aug-Sep 1999	71,380	Ocean DA
	54,600	SIBUA
May-Sep 1999	^{3/} 3,061,598	SIBUA
Apr-Jul 2000	758,280	Ocean DA
Mar 2002-May 2002	92,820	SIBUA
Jun 2004	230,110	SIBUA
Oct 2004-Nov 2004	1,184,817	SIBUA
Oct 2004-Jan 2005	1,808,765	SIBUA and at Lighthouse
Aug 2005	67,555	SIBUA
Apr-Jun 2006	487,975	SIBUA
Aug 2007	1,083,860	SIBUA
Nov-Dec 2008	585,430	SIBUA
Sept-Nov 2009	942,817	SIBUA
Total Dredged from Outer Bar	24,918,514	
Total Placed in Ocean DA	15,328,167	
Total Placed in SIBUA or at Lighthouse	9,600,347	

^{1/} Ocean DA – EPA approved open water disposal site in the offshore Gulf of Mexico

SIBUA – Sand Island Beneficial Use Area

^{2/} New Work Deepening from 42 to 47 feet

^{3/} New Work Deepening from 47 to 49 feet.





KAY IVEY
GOVERNOR

**STATE OF ALABAMA
EMERGENCY MANAGEMENT AGENCY**

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BRIAN E. HASTINGS
DIRECTOR

August 20, 2018

Jennifer Jacobson
Chief, Environment and Resources Branch
Department of the Army
Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

RE: Mobile Harbor

Dear Ms. Jacobson:

After review of the proposed project, Alabama Emergency Management concurs with the proposed actions and have no additional comments.

Very respectfully,

Brian E. Hastings, Col (ret) USAF
Director
Alabama Emergency Management Agency



ALABAMA HOUSE OF REPRESENTATIVES

11 S. UNION STREET, MONTGOMERY ALABAMA 36130

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September 25, 2018

Colonel Sebastien P. Joly
Commander/District Engineer
U.S. Army Corps of Engineers
Mobile District
Post Office Box 2288
Mobile, AL 36628-0001

Re: Channel Project

Dear Colonel Joly,

I have represented Alabama House District 105 for several years, during this time articles like the one written by Lawrence Specker on September 12, 2018, titled "Alabama's congressional team backs channel project". I would like for you to know that I support the project and the potential economic impact the expansion of the channel will likely bring to Mobile, as well as the state of Alabama. However, this project also offers an even greater opportunity to bolster environmental sustainability along the southwest coast of Alabama, the reduction of further storm damage and support of a vibrant seafood industry is critical.

The Mobile Harbor Ship Channel requires maintenance dredging to ensure proper depths are maintained to accommodate cargo ships and other large vessels entering the Port of Mobile. Much of the dredged materials, especially the beach quality sands found in the outer bar portion of the channel are valuable resources. a stable and resilient barrier island would serve to reduce storm damage to mainland communities of southwest Alabama while protecting habitats for juvenile crab, fish, oysters, and shrimp.

I would like to suggest we can have an enlarged channel, a successful port, and a coastal region that is healthy, resilient and also supports the local economy. Developing and implementing ways to incorporate a more responsible and truly beneficial dredge disposal practice into the larger ship channel project so that all usable materials (both during the deepening and widening phase of the project and further maintenance work) are placed in an area that will get picked up in the littoral flow and naturally feed points west. To put it quite simply, the channel regularly fills with sand it doesn't need and Dauphin Island, mere stone's throw away, is sand starved.

This is truly a once in a lifetime opportunity to modernize and improve the Port of Mobile and, at the same time, take meaningful actions to support, defend and invest in the significant coastal environment. I respectfully request that you seize upon this opportunity for future generations. If you have any questions, please feel free to contact me at d.r.sessions@att.net or 251-490-0117. I look forward to speaking with.

Respectfully,

A handwritten signature in cursive script that reads "David R. Sessions".

David R. Sessions



United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance

Richard B. Russell Federal Building
75 Ted Turner Drive, S.W., Suite 1144
Atlanta, Georgia 30303



ER 18/0344
9043.1

September 6, 2018

Jennifer L. Jacobson
U.S. Army Corps of Engineers
Mobile District
109 Saint Joseph Street
Mobile, AL 36602

Re: Comments on the Draft Supplemental Environmental Impact Statement (DSEIS) for the
Mobile Harbor Project – Mobile, Alabama

Dear Ms. Jacobson:

The U.S. Department of the Interior (Department) has reviewed the US Army Corps of Engineers Draft Supplemental Environmental Impact Statement (SEIS) dated July 24, 2018 for the proposed Mobile Harbor Project. We offer the following comments to inform readers of the misidentification of the United States Geology Survey (USGS) as a cooperating agency under the National Environmental Policy Act (NEPA) process for this study.

This SEIS states on page 6-19 that the USGS was a cooperating agency as defined under 40 CFR 1501.6 for this study. Jennifer Jacobson, Corps of Engineer Project Manager, confirmed by telephone correspondence on August 30, 2018 that the USGS was contacted by letter to Jess Weaver (retired) to be a cooperating agency. She acknowledged that no formal response from the USGS was received although USGS staff did participate in project meetings.

The USGS requests that its name be removed from the Final Environmental Impact Statement listing of cooperating agencies for the Mobile Harbor Project. We are happy to see the utilization of USGS science and publications referenced within the SEIS. We are available to support the Mobile District Corps of Engineers with this and other projects as needed.

Thank you for the opportunity to review and comment on this DSEIS. If you have any questions concerning our comments, please contact J. Michael Norris, USGS Coordinator for Environmental Assessment Reviews on (603) 226-7847 or via email mnorris@usgs.gov. I can be reached on (404) 331-4524 or via email at joyce_stanley@ios.doi.gov.

Mobile Harbor Project – ER 18-0344

Sincerely,

A handwritten signature in black ink, appearing to read "J Stanley", with a long horizontal flourish extending to the right.

Joyce Stanley, MPA
Regional Environmental Officer

cc: Christine Willis – FWS
Michael Norris - USGS
Anita Barnett – NPS
OEPC – WASH



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

September 7, 2018 F/SER46/BH:jk
225/389-0508

Ms. Jennifer L. Jacobson
Planning and Environment Division
Mobile District Environmental Branch
U.S. Army Corps of Engineers
Post Office Box 2288
Mobile, Alabama 86628-0001

Dear Ms. Jacobson:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (SEIS), dated July 24, 2018, on the "**Mobile Harbor Navigation Project.**" The U.S. Army Corps of Engineers (USACE) proposes to conduct maintenance dredging and placement activities. The maintenance dredging includes a navigation channel from the Gulf of Mexico to turning basins near the Cochrane Bridge, Alabama State Docks, and McDuffie Island. The following is provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and 600.920 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

The NMFS provided comments to the public notice for the project by letter dated January 25, 2017, recommending the beneficial use of dredge material. The USACE responded by letter dated February 21, 2017, acknowledging the comments. The maintenance dredging will generate approximately 5.5 million cubic yards of sediment annually. As proposed in the Public Notice, the sediment would be disposed at the Mobile Offshore Dredged Material Disposal Site (ODMDS), open bay thin-layer disposal areas, the Sand Island Beneficial Use Area (SIBUA), Blakely Island, and Gilliard Island.

Section 2.5.4 of the SEIS confirms little change to water quality parameters such as turbidity, salinity, and dissolved oxygen will result from the project. Due to NMFS' early involvement as a cooperating agency and close coordination with USACE, the project has been designed in such a way as to not have a substantial adverse effect on EFH or federally managed fishery species in Mobile Bay and surrounding waters. The NMFS Habitat Conservation Division does not object to the project as proposed and agrees with USACE's determination the project will not adversely affect EFH.

We appreciate your consideration of our comments. If you wish to discuss this project further or have questions concerning our recommendations, please contact Brandon Howard at (225) 389-0508, extension 203.

Sincerely,

A handwritten signature in blue ink, reading "Virginia M. Fay".

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division



c:
FWS, Paul_Necaise@fws.gov
F/SER46, Swafford
F/SER4, Dale, Fay, Silverman
Files



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 17 2018

Ms. Jennifer L. Jacobson
Chief, Environmental and Resources Branch
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

Re: Mobile Harbor, Mobile, Alabama; Draft Integrated General Reevaluation Report with
Supplemental Environmental Impact Statement (draft GRR/SEIS); CEQ No.: 20180168

Dear Ms. Jacobson:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency reviewed the draft GRR/SEIS for Mobile Harbor. In the draft GRR/SEIS, the U.S. Army Corps of Engineers' (USACE) evaluates the environmental consequences of the Alabama State Port Authority's (ASPA) proposal to widen and deepen the Mobile Harbor Federal Navigation Channel. The intent of the proposed project is to improve the safety and efficiency of the existing federal navigation system.

The draft GRR/SEIS examines two alternatives - a no action alternative and a Tentatively Selected Plan (TSP). The TSP involves: 1) deepening the existing bay and bar channels and a portion of the river channel by 5 feet (bay channel from 45-feet (ft.) to 50-ft., bar channel from 47-ft. to 52-ft., and river channel portion from 45-ft. to 50-ft., respectively). The deepening includes an additional two feet of advance maintenance and two feet of allowable over depth dredging; 2) widening the bay channel by 100 ft. for three miles beginning at the upper end of the bend area at the 50-ft. depth; including bend easing with the deepening at the upper end of the bar channel; and 3) expanding Choctaw Pass turning basin to ensure safe operation for vessels at the 50-ft. depth.

The EPA recognizes the importance of infrastructure development while assuring environmental and public health protection. This letter provides technical recommendations that will strengthen the final GRR/SEIS. Our recommendations include information that will improve the evaluation of impacts and mitigation related to water quality and modeling, sediment and dredge placement, air quality and community impacts. Below is a summary of some of the EPA's primary recommendations; more detail is provided in the enclosed technical comments (See enclosure).

Sediments and Disposal: The EPA has concerns regarding the project's impact on the marine environment. The proposed action requires the removal of approximately 26 million cubic yards of dredged material and its disposal. According to the GRR/SEIS, future maintenance dredging will require the dredging and disposal of approximately two million cubic yards annually. To determine the suitability of the dredged material for ocean disposal, further evaluation is needed under the Marine Protection, Research, and Sanctuaries Act (MPRSA) Section 103 process. This evaluation will include

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sediment's physical, chemical, and biological testing reports, as well as the District Engineer's determination of compliance with the Ocean Dumping regulations at 33 CFR 325.

Several disposal sites are considered for new work dredge material, including the Ocean Dredged Material Disposal Site Expansion and beneficial use at the Relic Shell Mine site and the Sand Island Beneficial Use Area (SIBUA) Extension. The EPA supports beneficial use (BU) of dredged material for multiple purposes, including habitat restoration and enhancement. The draft GRR/SEIS indicates that the Relic Shell Mine site has low dissolved oxygen (DO), but, there is no data presented that supports the claim that the Relic Shell Mine site has low DO and that the placement of dredged material will improve the DO. The EPA recommends that the rationale for dredge material placement should be supported with appropriate data in the final GRR/SEIS and that monitoring should occur seasonally for at least 2 years at beneficial use sites.

Water Quality and Modeling: The EPA has concerns for potential water quality and modeling with regards to the TSP. To address these concerns, measures that estimate the cumulative amount of sedimentation based on turbidity observations from dredge overflow should be developed. The final GRR/SEIS should also describe efforts to reduce the project's potential adverse impacts, including thresholds that indicate how much overflow would be acceptable before substantive impacts are expected to occur. In terms of water quality modeling, the EPA is concerned that model performance is only evaluated using visual comparisons of model results with observed data. The EPA recommends that the USACE conduct a quantitative evaluation of the model calibration results to provide confidence in the predictability of the calibrated model. This is important because it ensures that water quality parameters such as DO and salinity are accurately projected and conclusions related to the potential impacts on submerged aquatic vegetation, wetlands, and other aquatic resources can be supported.

Based on our review, the EPA rates the draft GRR/SEIS as 'EC-2' (i.e., "Environmental Concerns" and the information as "Insufficient" under EPA's rating procedures; Please see: <https://www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>). The EPA's environmental concerns regarding sediments and disposal, water quality and modeling and the need for additional information should be addressed in the final GRR/SEIS. The EPA further recommends that the USACE work with the EPA and other stakeholders to develop appropriate criteria and monitoring and management plans for relevant water resource parameters and address stakeholder concerns.

We appreciate the opportunity to provide comments on the GRR/SEIS. We look forward to discussing our comments with you. If you have any questions regarding these comments, please contact Ntale Kajumba, of my staff, at (404) 562-9620 or kajumba.ntale@epa.gov.

Sincerely,



Carol J. Monell
Deputy Director
Resource Conservation and Restoration Division

Enclosure (1) Detailed Comments

**Mobile Harbor, Mobile, Alabama; Draft Integrated General Reevaluation Report with
Supplemental Environmental Impact Statement; Detailed Comments.
CEQ No.: 20180168**

Coordination

- We appreciate the early coordination efforts made by the USACE with various federal agencies and the public to solicit and incorporate suggestions during the NEPA scoping process. However, the NEPA documents relevant to the EPA's preliminary environmental review for topics where the EPA has technical expertise or jurisdiction were not provided to us per our cooperating agency request due to the USACE's schedule for the draft GRR/SEIS issuance. As a result, the detailed technical comments are longer than usual for the SEIS because the cooperating agency review was not afforded to the EPA.

Recommendation: The EPA recommends that the USACE work directly with us to address our primary concerns prior to the issuance of the final GRR/SEIS. The final GRR/SEIS should include the USACE's responsiveness summary that addresses both Agency and public comments regarding the proposed project.

Water Quality

- According to the draft GRR/SEIS, dredge overflow will be allowed for the proposed project, but work will stop if an increase of 50 Nephelometric Turbidity Units (NTU) above background turbidity levels is observed. The 50 NTU is a State of Alabama water quality standard for turbidity that must be met and observations will be made daily. Dredged material from the channel is primarily fine material. However, the research cited within the GRR/SEIS regarding the distances material travels relate to coarse material, such as sand. In addition, the water quality model predicted no impacts from increased total suspended solids and turbidity and is dismissed as having a potential ecological impact.

Recommendation: The EPA recommends that the distances modeled for material transport should be clarified. The final GRR/SEIS should also include citations of research for particle mobilization of sediments which are similar to those expected to be dredged during the project. The amount of sedimentation that will result in the bay should be estimated at the appropriate distances from overflow. The EPA notes that daily observations may be inadequate to detect changes depending on the time of observation and the current operation. For effective feedback of management measures, continuous data should be collected at multiple stations. The USACE should develop measures to estimate the cumulative amount of sedimentation based on turbidity observations from overflow. The final GRR/SEIS should describe measures to reduce potential impacts, including thresholds that indicate how much overflow would be acceptable before substantive impacts are expected to occur.

Water Quality Modeling

- The GRR/SEIS states that model performance was evaluated using visual comparisons of model results with observed data. The evaluation of the hydrodynamic model performance also appears to be completely qualitative (Reference: ERDC Modeling Report; Attachment A-1). If the model calibration is incorrect, conclusions such as the apparent lack of impact to submerged aquatic vegetation, wetlands, and other aquatic resources cannot be accurately drawn.

Recommendation: Quantitative evaluation of model calibration results should be conducted to provide confidence in the predictability of the calibrated model. The EPA recommends that Figure

73-80 include quantified statistics (bias and variance of errors) of differences between observed and modeled water quality parameters. Figure 83-94 should also include quantified statistics (bias and variance of errors) of the differences between existing and 'with-project' condition simulation results. It is unclear from the GRR/SEIS whether the difference is within the bounds of uncertainty of the calibrated model. If so, then the calibrated model is not precise enough to detect any difference between scenarios. The GRR/SEIS conclusion of 'no difference' between the proposed project and existing water quality conditions should take into consideration the uncertainty or predictability of the calibrated model. For the hydrodynamic model, quantified statistics (bias and variance of errors) of difference between observed and modeled surface elevations for Figures 7, 12-16, and 20-28 should also be provided in the final GRR/SEIS.

Dredged Material and Placement

- *Marine Protection Research and Sanctuaries Act (MPRSA)*: It is unclear throughout the document that the proposed expansion to the Mobile Ocean Dredged Material Disposal Site (ODMDS) is an independent action that is being pursued separately by the EPA. The EPA has been coordinating with the USACE for approximately ten years regarding the expansion of the existing ODMDS to provide sufficient long-term capacity for the placement of dredged material under MPRSA Section 103. While the USACE is the primary user of the site, any user may dispose of material at the ODMDS, provided that the proposed sediment is appropriately tested and the user receives concurrence from both the USACE and the EPA. Furthermore, the GRR/SEIS discusses consultations and studies related to the Mobile ODMDS expansion process. However, these consultations for the ODMDS should also be considered independent of the proposed GRR/SEIS action.

Recommendation: The EPA recommends modifying language such as: "*Mobile District is currently pursuing certification for extensions to the Sand Island Beneficial Use Area (SIBUA) and the ODMDS*", in the final GRR/SEIS. This language makes it unclear that the ODMDS expansion is an EPA action that is unrelated to the GRR/SEIS. In addition, the agency consultation process for the proposed ODMDS expansion will be described in the draft environmental assessment for the proposed Mobile ODMDS expansion and does not require a GRR/SEIS discussion. The GRR/SEIS also discusses potential impacts to the environment and other effects related to the potential expansion of the Mobile ODMDS. This information will be described in the draft environmental assessment for the proposed Mobile ODMDS expansion. However, the effects of transporting and disposing of large volumes of dredged material into the ocean are of relevance, and should continue to be included in the final GRR/SEIS.

- *New Work Material Characterization*: The GRR/SEIS assumes that the new work material associated with the proposed action would be similar to that already tested, and "*should be suitable for placement in the ODMDS*", without providing comparative information that would help to substantiate this conclusion. The document further states that based on the results of recent sediment testing, it is anticipated that "*no contaminants will be detected.*" This statement is misleading and misrepresents the scope of existing data within the proposed project footprint. For example, sediment from Mobile Bay and the Mobile River channel were found to have detectable levels (above reporting limits) of several different analytes, including metals, polycyclic aromatic hydrocarbons, pesticides, and dioxins during sediment testing in 2010 (from: Final Evaluation of Dredged Material, Federally Authorized Navigation Projects, Mobile Harbor, Mobile, Alabama, USACE, 2011).

Recommendation: The EPA recommends that the final GRR/SEIS include comparative documentation, such as sediment cores or chemical screens to project depth, that demonstrate the proposed project material is substantially similar to previous projects that have received concurrence for disposal into the Mobile ODMDS. What is meant by “*similar*” should also be defined (quantitatively or qualitatively). Material proposed for ocean disposal must be tested and receive concurrence by both the EPA and the USACE before the material is cleared to be disposed of in an ODMDS. Similarity to previous projects is not a guarantee that the physical, chemical, and biological tests required will demonstrate that the material can be disposed of in an approved ODMDS. Furthermore, the final GRR/SEIS should clarify what is meant by “*no contaminants will be detected*”, when it is clear from existing sediment testing that there will most likely be detectable levels of some contaminants (including metals, polycyclic aromatic hydrocarbons, pesticides, and dioxins) within the proposed project footprint.

- *Clarification of ODMDS Description:* Appendix A of the GRR/FEIS states that the ODMDS is part of the “*existing*” MRPSA Section 103 ODMDS. Section 103 ODMDSs are considered interim sites, and are intended to be used for five years, with continued use contingent on the EPA approval. The Section 103 site was selected by the USACE in the 1980’s. However, the only EPA-approved ocean disposal site in proximity to the proposed GRR/SEIS project is the Mobile Section 102 ODMDS.

Recommendation: The EPA recommends clarifying language in the final GRR/SEIS Appendix A that indicates that the proposed expansion of the Mobile Section 102 ODMDS will encompass a portion of the historically used Section 103 ODMDS. The proposed action will not involve expanding or using the Section 103 site (outside of the proposed expansion area).

Clean Water Act (CWA)/Section 404

- *Beneficial Use Objectives and Sediment Testing:* The EPA supports beneficial use of dredged material for multiple purposes which include habitat restoration or enhancement. The GRR/SEIS states that the Relic Shell Mine proposed beneficial use (BU) site has low dissolved oxygen (DO) and portions of the site are highly hypoxic and that placement of dredged materials would improve DO. However, there is no data presented that supports the statement that the Relic Shell Mine site has low DO. According to the document, however, water quality was favorable (i.e., DO concentrations were well above hypoxic levels) during a single observation. The GRR/SEIS also states that benthic macrofaunal recovery is expected to occur with 12-18 months at the BU sites. For testing requirements, the EPA previously stated that testing will be required for BU sediments and that the result will need to comply with the CWA and follow procedural guidance under the Inland Testing Manual. The GRR/SEIS inconsistently states whether compliance is needed under MPRSA versus CWA.

Recommendation: Habitat restoration and enhancement should have explicit measurable objectives. The EPA recommends that the final GRR/SEIS provide data to support low DO conditions in the Relic Shell Mine areas if improved DO is an objective and the rationale for material placement. For DO, continuous data is preferred. However, if continuous data is unavailable, multiple observations are needed to present the pattern of DO as it changes temporally throughout the day and in different seasons. For testing requirements, the EPA previously stated that testing will be required for BU sediments. The EPA recommends that monitoring should occur seasonally for at least 2 years to demonstrate the effect of BU placement on any water quality and benthic macrofaunal changes. The final GRR/SEIS should all clarify that in all instances where material is proposed for BU, compliance with the CWA is required. As previously discussed with the USACE and the ASPA, the

EPA will accept testing results developed under MPRSA and the accompanying guidance in the Ocean Testing Manual to analyze for compliance with the CWA.

- *Compensatory Mitigation:* The GRR/SEIS states no compensatory mitigation is proposed, but then also states that the BU of sediment in the Relic Shell Mines would offset any loss of benthic habitat from channel expansion.

Recommendation: The EPA recommends that the final GRR/SEIS clarify whether the proposed BU at the Relic Shell Mine site for benthic habitat restoration is intended as compensatory mitigation for the permanent loss of benthic habitat.

- *Benthic Sampling at BU Sites:* Specific information on the benthic sampling results and associated discussion from the Relic Shell Mine site for macrofauna or sediment is not provided. The sampling stations presented in Figure 2-29 of Appendix C demonstrate the great lengths taken to adequately characterize benthic macrofauna and sediments in the BU site area including baseline, control, impact and proposed placement sites totaling 90 stations.

Recommendation: The EPA recommends that data from individual sampling stations for all parameters measured at the 90 stations should be provided in the final GRR/SEIS. The detailed benthic report should include a separate detailed discussion of the results from the 90 stations around and including the proposed BU sites. The EPA requests that the final GRR/SEIS provide the name of the document cited as 'Reine, 2018' in the references and a link for our review. We also request overlay relic shell site polygons on Figure 2-29. Specifically, analyzing characteristics for both sediment and water quality parameters in and around Relic Shell Mine Site 'A' may provide insight on expected outcomes at other sites ('B-F') as 'A' overlaps with an area that has been receiving thin layer placement of maintenance material.

- *Placement Methods at BU Sites:* Previous projects (i.e., Brookey Hole) that used dredge material to raise surface elevations and decrease anoxic conditions have used direct placement versus thin layer placement. Additional discussion is needed regarding the appropriateness of the thin layer method which should take into account the fine material currently present in the Relic Shell Mines. The draft GRR/SEIS cites three thin layer placement projects in Mississippi in 2006 without reference. The EPA considers the proposed BU placement approach to be experimental, thus, requiring adequate planning and monitoring to ensure the desired outcome is produced. A prior criteria for suitability of BU material should be developed before sampling and testing the sediments. The EPA is concerned about developing acceptable thresholds for particle size and texture ('fat/stiff' clays) as well as total organic content to ensure that habitat enhancement goals are met.

Recommendation: The EPA recommends that the beneficial use sub group reconvene before the start of the preliminary environmental design (PED) phase to identify specific monitoring parameters and monitoring plan for the proposed BU site so that appropriate analyses are developed during the PED phase that would allow for pre- and post-monitoring. This group could develop or provide feedback on USACE developed material suitability criteria. The EPA recommends that the final GRR/SEIS provide references for citations to any studies discussed in support of the BU placement. Any monitoring should occur seasonally for at least 2 years to demonstrate the effect of BU placement on benthic changes. Please use the term 'significant' to only refer to objective statistical significance. Subjective use of the term can result in misinterpretation. Also, please include a broader discussion

of the results of the study regarding specific water quality parameters as well as other measured biological responses, such as benthic monitoring.

- *BU Modelling:* In the GRR/SEIS, stated modelling objectives for the BU site sediment transport only addressed the material to be placed at the site and did not consider any movement of material currently existing at the BU site. Some data on sediment was previously collected from the sites and was used in the modeling ('SEDflume' cores 8-13), but was not specifically discussed or analyzed. A conclusion is presented that +/- 8 centimeters of erosion or sedimentation expected is not significant because it is within the bounds of model uncertainty.

Recommendation: The EPA recommends that the movement of material currently existing at the BU site should be defined as a modelling objective during the preliminary environmental design phase to predict the movement of sediments currently existing in the holes during placement activities. If the composition is different in each BU placement site, consider grouping for better model resolution and predictive power. Provide a table of raw data of sediments present in the Relic Shell Mine sites and the organic content for all 90 benthic stations as well and discuss together with the 'SEDflume' core data. Please clarify model certainty with regards to accepted tests of statistical significance and communicate any results in objective statistical terms to avoid misinterpretation. The final GRR/SEIS should explain whether the result indicated in the model is insufficient to predict changes and/or if more calibration is needed. In addition, please explain whether the anticipated changes were modeled for the life of the project or only for a one-year cycle and how the approach captured any cumulative changes.

Air Quality

- The draft GRR/SEIS makes the statement that the air quality impacts will not be as significant since construction is temporary. The draft GRR/SEIS discounts the localized impacts of short term increases in emissions. It does not appear that a substantive analysis of the potential air quality impacts for the preferred option. It also appears that the draft GRR/SEIS uses the Charleston Harbor Environmental Impact Statement to justify a reduction in emissions from larger ships, but it is unclear that the ASPA is implementing similar strategies as those implemented at Charleston Harbor. It is also unclear based on the Appendix C that all the ship to shore cranes are electric; the rubber tired gantry cranes are Tier 3 and moving to Tier 4/electric; or that the port has a dray replacement program that limits the age of the dray fleet. These elements in the Charleston Harbor inventory have a significant beneficial impact on the emissions from the port. In addition, the draft GRR/SEIS states that the increase in emissions would not result in air emissions problems, but the USACE did not conduct modeling to support that statement. Without dispersion modeling, localized air quality impacts cannot be determined.

Recommendation: The final GRR/SEIS should state that the impacts are short-term and that the USACE decided not to fully assess those impacts (if that is the case). Large emissions on a short-term basis can have an impact on the surrounding communities. The EPA also requests information that supports the claim that there will be a reduction in emissions from larger ships. We note that Charleston Harbor's operation is based on a significant switch to electric cranes and low emission diesel technology. It is recommended that in the final GRR/SEIS, the USACE more clearly outline the dray program and whether older trucks are prohibited from entering the premises like at Charleston Harbor.

OFFICE OF THE MAYOR

September 10, 2018



U.S. Army Corps of Engineers, Mobile District
Colonel Sebastien P. Joly
P.O. Box 2288
Mobile, Alabama 36628
MobileHarborGRR@usace.army.mil

RE: Draft General Reevaluation Report & Supplemental Environmental Impact Statement (GRR/SEIS) to evaluate improvements to the Mobile Harbor Federal Navigation Channel, Mobile, AL.

Colonel Joly:

On behalf of the City of Mobile, I am writing to express my strong support for the ongoing efforts to widen and deepen the Mobile Harbor Federal Navigation Channel and to provide comments on the Mobile Harbor Draft General Reevaluation Report & Supplemental Environmental Impact Statement (GRR/SEIS).

The study conducted by the U.S. Army Corps of Engineers (USACE) fully examined the costs, benefits and environmental and economic impact of widening and deepening the Mobile Harbor Channel to the authorized dimensions under Section 201 of the 1986 Water Resources Development Act. The study also evaluated a range of alternative plans that would improve the safety and efficiency of the current navigation system.

I fully concur with the findings of the U.S. Army Corps of Engineers Draft GRR/SEIS report. The GRR/SEIS examined the potential impacts of deepening and widening the federal navigation channel and provided the Tentatively Selected Plan (TSP) for navigation improvements.

Simply put: Advancing the Port of Mobile is critical to driving economic success for the State of Alabama and the Gulf Coast region. The Port, managed by the Alabama State Port Authority, is one of the fastest growing harbors in the nation. Modernization of the federal channel is vital to the continued growth and prosperity of both the City of Mobile and the State of Alabama.

The City of Mobile is strategically located on Mobile Bay with the Gulf of Mexico to the south and the confluence of the Alabama and Tombigbee rivers to the north.

This location has established Mobile as a global trading hub ever since the city's founding by French explorers in 1702. For more than 300 years, Mobile has continued to thrive as a result of shipbuilding and international trade at the Port. The widening and deepening of our harbor channel will serve as a catalyst for economic development, increase our global competitiveness, create jobs and promote an environment in which all citizens can prosper.

The significance of this generational project to Mobile's future cannot be overstated:

- The Port of Mobile is one of the largest economic engines for the state, with a \$22.4 billion annual economic impact. Expansion of the channel is vital in maintaining the port's growth and long-term sustainability. The Panama Canal historically provided a limit on the size of container ships and other vessels. But as the canal has been widened, the ships have gotten larger. The existing channel constrains deeper-drafting containerships and restricts many vessels to one-way traffic. This reduces efficiency and increases costs for shippers and regional industries relying on just-in-time logistics.
- An economic impact study from the University of Alabama's Center for Business and Economic Research found that the the port is responsible for 134,608 direct and indirect jobs in the state with a direct and indirect tax impact of \$486.9 million. A deeper and wider channel will clear the way for the port to accommodate larger ships that are already starting to come through the expanded Panama Canal. The deeper channel will allow ships to carry more weight, making the port more efficient for importers and exporters - spurring dockside development, creating more jobs and a greater tax impact for the State of Alabama.
- Since 2002, more than \$1 billion in public/private funding has been invested into improving the Port of Mobile's infrastructure, with more than half of that total coming within the past decade.
- Mobile currently serves as a home port for Carnival Cruise Lines with tremendous potential for growth as the region's tourism market continues to expand. The channel widening will eliminate delays associated with the movement of the Carnival Fantasy and other cruise ships. At present, commercial ships must wait and allow the Fantasy to complete its passage to and from the Mobile Alabama Cruise Terminal which is located in the Port of Mobile. The demurrage costs alone from these delays are significant and have a negative impact on the Port's competitiveness. Not only would the channel widening prevent these delays, but also prevent frequent delays of the Fantasy's departure while waiting for ships to transit the channel.
- The Port of Mobile is one of the 10 largest full-service seaports in the United States, with over 28.7 million tons of goods and 318,889 shipping containers handled port-wide. The cargo transportation industry continues its shift to increased use of standardized containers for multimodal (marine, rail, and truck) freight transportation systems. Additionally, the industry is trending toward larger, deeper-draft vessels, particularly for containerships and dry bulk carriers. The container business has been a point of strong growth for the Port of Mobile in recent years, including a record 20 percent container growth in 2017. The federal navigation channel's existing dimensions place constraints on deeper drafting vessels and without improvements could negate the growth of the port's container sector.
- The current channel presents three primary navigational challenges: 1. Larger size vessels experience transit delays due to the current width of the channel; 2. Existing channel depths limit vessel cargo capacity; and 3. Existing traffic congestion has increased safety concerns.
- The USACE Tentatively Selected Plan would include the following navigation improvements: Deepen the channel by 5 feet to a depth of 50 feet, widen the channel for three nautical miles to allow two-way traffic, expand the Choctaw Pass turning basin to accommodate safe turning of larger vessels, and ease the existing bend in the Bar Channel.

- The GRR/SEIS study states the TSP presents a growth in containerized and other vessel traffic and is economically justified with a benefit-to-cost ratio of 3.0.

The City of Mobile and my Administration are ready to assist in any way we can to ensure this project is successful. This project is a top priority of my Administration and we commit to working closely with the members of our U.S. House and Senate delegation both to maintain their support and to secure necessary funding.

We appreciate the strong partnership that has been forged between the City of Mobile and U.S. Army Corps of Engineers Mobile District. Together, we are working to be good stewards of Mobile's incredible natural resources and to improve the quality of life for our region.

Our bay and coastal waterways are a unique and invaluable ecosystem, supporting a diversity of marine life and amazing natural beauty. Under the leadership of the USACE, we firmly believe that this project will preserve those resources while also serving as a catalyst for economic growth.

In summary, the City of Mobile strongly recommends this transformational project be completed because of the significantly positive impact it will have on our citizens, businesses and the Port of Mobile's ever-expanding role in the global supply chain.

The City of Mobile is committed to continue to working closely with the U.S. Army Corps of Engineers throughout the public comment period and as it drafts the final GRR/SEIS report.

Sincerely,



William S. Stimpson
Mayor

OFFICE OF THE GOVERNOR

KAY IVEY
GOVERNOR



STATE OF ALABAMA

DEPARTMENT OF COMMERCE

GREG CANFIELD
SECRETARY OF COMMERCE

September 13, 2018

Ms. Jennifer L. Jacobson
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Dear Ms. Jacobson:

I am writing in support of the Alabama State Port Authority and its request for funding to deepen and widen the channel for the Port of Mobile. As Secretary of Commerce, I have charge of driving investment and job creation in the State of Alabama as well as improvement of our State's export activity.

For the past several years, Alabama's trade activity and job creation tied to trade has been on an upward trajectory. The Port of Mobile has played a vital role in growing jobs and reducing unemployment across our State. The fact is that the Port of Mobile's public terminals, owned by the Alabama State Port Authority, are responsible for generating:

- 134,608 direct and indirect jobs
- \$486.9 million in direct/induced/indirect tax impact
- Total Economic Value \$22.4 Billion

The channel deepening and widening will infuse shipping efficiencies and provide economies of scale to Alabama cargo shippers and will do much to support the growing automotive, aerospace, agricultural, metals and forest products sectors in Alabama and will support our efforts to grow and expand our economy for generations to come.

It is my hope that the U.S. Army Corp of Engineers recognizes the value of funding this vital project. I humbly request a favorable decision to provide the funding requested.

Best regards,

A handwritten signature in black ink, appearing to read 'Greg Canfield', is written over a horizontal line.

Greg Canfield

Congress of the United States
Washington, DC 20515

September 6, 2018

U.S. Army Corps of Engineers, Mobile District
Attn: Colonel Sebastien Joly
109 Saint Joseph Street
Mobile, AL 36602

Dear Colonel Joly,

We write to offer our comments in support of the Tentatively Selected Plan (TSP) identified in the Draft Mobile Harbor, Mobile, Alabama Integrated General Reevaluation Report with Supplemental Environmental Impact Statement.

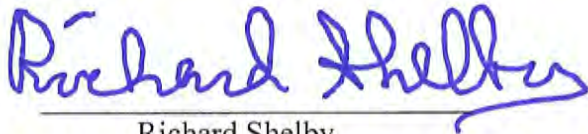
The Port of Mobile (Port), operated by the Alabama State Port Authority (Authority), is currently the 10th largest seaport in the United States and has been identified as the fastest growth container terminal in North America. In any given year, between 52-67 million tons of cargo moves through the Port. The Authority's container, general cargo and bulk facilities have immediate access to two interstate systems, five Class 1 railroads, and 15,000 miles of inland waterway connections. To keep up with demand, the Authority has invested more than \$700 million towards a capital expansion program to establish additional facilities, including new steel and container terminals, an expansion of the coal terminal, a rail ferry terminal, new warehouses, two "super Post-Panamax" cranes, and an automobile roll-on/roll-off terminal. While these additions have improved the safety and efficiency of the Port for many of our constituent companies, there is still a vital project that must be completed to ensure the competitiveness of the Port in an increasingly global marketplace.

Currently, the Port maintains an average depth of 45 feet and width of 400 feet. Due to the expansion of the Panama Canal, the marine fleet is continually trending to larger, deeper-draft vessels. Without critical port and waterway improvements, these larger ships will continue to experience transportation delays and inefficiencies due to the limited channel depth and width. As such, we applaud your efforts thus far to study the engineering, economic, and environmental impacts associated with the deepening and widening of the existing navigation system.

Modernizing the capabilities of one of the nation's largest seaports will spur exponential economic investment by allowing larger ships and more goods to be shipped and sold, facilitating and expanding commerce. We believe that the TSP accomplishes these goals in a manner that is economically and environmentally responsible, and encourage the Corps to move forward to attain the Agency Decision Milestone and to expeditiously deepen and widen the federal channel.

Thank you for your attention to this matter and please let us know if we can provide any additional information.

Sincerely,



Richard Shelby
U.S. Senator



Doug Jones
U.S. Senator



Robert Aderholt
Member of Congress



Mo Brooks
Member of Congress



Bradley Byrne
Member of Congress



Gary Palmer
Member of Congress



Martha Roby
Member of Congress



Mike Rogers
Member of Congress



Terri Sewell
Member of Congress

KAY IVEY
GOVERNOR



STATE CAPITOL
MONTGOMERY, ALABAMA 36130

STATE OF ALABAMA

September 13, 2018

Colonel Sebastien P. Joly
U.S. Army Corps of Engineers, Mobile District
109 Saint Joseph Street
Mobile, Alabama 36602

Dear Colonel Joly:

Since 1792, Mobile, Alabama has played a prominent role in global trade. For more than 300 years, Mobile has thrived in this industry. I want to ensure Mobile and the State of Alabama continue to thrive in international trade and write you in support of deepening and widening the federal navigation channel as outlined in the Tentatively Selected Plan (TSP) identified in the Draft Mobile Harbor Mobile, Alabama Integrated General Reevaluation Report with Supplemental Environmental Impact Statement.

The Port of Mobile has direct access to two interstate systems, five Class 1 railroads, and 15,000 miles of inland waterway connections. The Port has a \$22.4 billion annual economic impact, and it is responsible for 134,608 direct and indirect jobs in Alabama with a direct and indirect tax impact of \$486.9 million.

The Port of Mobile is the tenth largest full-service seaport in the U.S. and is the fastest growing container terminal in North America with 28.7 million tons of goods and 318,889 shipping containers handled port-wide. In 2017, the Port of Mobile experienced twenty percent container growth. As the industry shifts towards standardized containers for multimodal transportation, vessels are becoming larger with deeper drafts. The trends of standardized containers and larger, deeper-draft vessels are accelerated by the expansion of the Panama Canal. These industry changes are causing transit delays, limited vessel cargo capacity, and safety concerns for the Port of Mobile. The USACE Tentatively Selected Plan would remedy these concerns.

I am committed to working with the U.S. Army Corps of Engineers, Alabama's Congressional Delegation, and Mayor Stimpson to ensure this project comes to fruition.

Sincerely,

A handwritten signature in black ink that reads "Kay Ivey". The signature is fluid and cursive, with the first name "Kay" and last name "Ivey" clearly distinguishable.

Kay Ivey
Governor