Comment 1

From: [redacted]
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Mobile Harbor Dredging Comments
Date: Wednesday, September 19, 2018 6:12:44 PM

Dear US Army Corp of Engineers,

I would just like to share one last thought I had with you. Has anyone looked at aerial photos and surveys of Dauphin Island before the channel dredging began and did a comparison?

Thank you for your time,

[redacted]
Mobile, AL

Sent from my iPhone

Comment 2

From: Rees, Susan I CIV USARMY CESAM (US)
To: McDonald, Justin S CIV USARMY CESAM (US); Parson, Larry E CIV CESAM CESAD (US)
Subject: FW: [Non-DoD Source] Mobile Baykeeper"s Comments on Mobile Ship Channel DSEIS (UNCLASSIFIED)
Date: Wednesday, September 19, 2018 1:52:30 PM
Attachments: 2018 MobileBaykeeper_Comment Letter_DSEIS.pdf

CLASSIFICATION: UNCLASSIFIED

-----Original Message-----
From: Laura Jackson [mailto:ljackson@mobilebaykeeper.org]
Sent: Monday, September 17, 2018 11:44 AM
To: sebastion.p.joly@usace.army.mil
Cc [redacted] adem.state.al.us; Parson, Larry E CIV CESAM CESAD (US [redacted]@usace.army.mil>; Newell, David P CIV CESAM CESAD (US) [redacted]1@usace.army mil>; [redacted]@fws.gov; Casi (kc) Callaway <callaway@mobilebaykeeper.org>; Rees, Susan I CIV USARMY CESAM (US) [redacted] usace.army mil>; Cade Kistler <ckistler@mobilebaykeeper.org>; McDonald, Justin S CIV USARMY CESAM (US) [redacted]@usace.army mil>; Paine, Joseph W CIV USARMY CESAM (US) [redacted]@usace.army mil>; [redacted]@fws.gov; coastal@adem.alabama.gov; [redacted]@epa.gov; [redacted]@epa.gov> [redacted]@adem.state.al.us>; Berkowitz, Jacob F CIV USARMY CEERD-EL (US) [redacted]@usace.army mil> [redacted]@phelps.com>; [redacted]@conservationalabama.org>; [redacted]@gmail.com>
Subject: [Non-DoD Source] Mobile Baykeeper's Comments on Mobile Ship Channel DSEIS

Hi Col. Joly,

Attached you will find Mobile Baykeeper's comment letter on the Draft Supplemental Environmental Impact Statement (DSEIS) to evaluate improvements to the Mobile Harbor Federal Navigation Channel, Mobile, AL.

Please let me know that you have received our submission and feel free to reach out with any questions.

Thank you,
Laura

--

Laura Stone Jackson

Program & Grants Coordinator
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<Blockedhttps://www.youtube.com/channel/UCAaAXTy3q_8FydkH61bhxRQ> Read Our Programs Blog Here!
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"Clean Water, Clean Air, Healthy Communities"

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CLASSIFICATION: UNCLASSIFIED

MOBILE BAYKEEPER©

Providing citizens a means to protect the beauty, health and heritage of the Mobile Bay Watershed and our coastal communities.

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September 17, 2018

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

RE: Draft Supplemental Environmental Impact Statement (DSEIS) to evaluate improvements to the Mobile Harbor Federal Navigation Channel, Mobile, AL.

Dear District Commander,

We are Mobile Baykeeper, a twenty-one-year-old nonprofit organization with the mission of providing citizens a means to protect the beauty, health and heritage of the Mobile Bay Watershed and coastal communities. We are submitting comments on behalf of the Peninsula of Mobile, Conservation Alabama Foundation, our Board, staff and more than 4,500 members regarding a Draft Supplemental Environmental Impact Statement (DSEIS) and General Reevaluation Report (GRR) to evaluate improvements to the Mobile Ship Channel.

We applaud the U.S. Army Corps of Engineers (USACE) for its efforts since 2015 to communicate with and involve the community in the project evaluation. Throughout this time, community members have had the opportunity to attend public scoping meetings and provide feedback on different project components. The Corps has a responsibility to meaningfully consider all comments made during this period. The Corps must listen to these comments and has a responsibility to address these issues before the final draft 32 C.F.R. § 651.36(a). Mobile Baykeeper has provided several comment letters during the assessment of the potential impacts associated with deepening and widening the Mobile Bay navigation channel, some of these points have been addressed but many have been left unanswered and continue to be major issues making the study inappropriate for approval.

Our biggest cause of concern is that several of the studies conducted are not comprehensive and therefore inadequate as required by the National Environmental Policy Act process for determining impact from the proposed project 40 C.F.R. § 1500.1(a). A DSEIS must include "high-quality information and accurate scientific data" per 40 C.F.R. § 1500.1(b) to ensure that its own determination is based on the best scientific and current data available. This lack of information may be the reason the Corps is finding the project will

result in "no impact" on any of the natural resources assessed. This is extremely concerning as it is the **only** channel expansion project of similar size in the country that has not identified any impacts or mitigation through its environmental impact statement.

The current SEIS presented is flawed, incomplete, and contains several issues identified in our comment letter below. This is not an exhaustive list; these are the issues we were able to identify within the public comment period allotted and more issues exist within the study. We must see major improvement in the quality of the study before the release of the final SEIS. The Corps must fully evaluate the following comments formulated based on the concerns of our members, partners, and experts. We strongly request a written response for how each will be incorporated and how the Corps plans to account for these risks through proper studies and mitigation. If the Corps does not address these issues there will be legal ramifications. The study should meet the letter and spirit of the law as well as give decision makers the best possible information so they are able to make an informative decision. The proposed Mobile Ship Channel expansion is a major infrastructure project located in the heart of Mobile Bay and in an estuary that supports our State's economy and community. We cannot let timelines or agendas dictate the quality of the study needed to ensure our natural resources are protected.

USE OF A ONE-YEAR SIMULATION FOR THE HYDRODYNAMIC AND WATER QUALITY MODELING

As stated in our previous comment letter, we fundamentally disagree with the use of a one-year simulation (2010) as the basis of a number of the environmental impact analyses in the DSEIS. More specifically, the Corps has selected the time period "for GSMB hydrodynamic, sediment transport, and water quality modeling of Mobile Bay" as "January through December of 2010" (5.3.1. Waves pg. 5-0). Although the Corps indicates 2010 is a year containing high and low flow conditions, the variations that exist between years and over a longer period of time are far greater and must be considered. In previous meetings with state agencies and in environmental focus group meetings, the Corps has been made aware of the concerns for using 2010 in their models but has chosen not to incorporate this feedback. It has been suggested and often considered better to use at least a three-year simulation for this type of modeling to ensure varied conditions are captured.

We appreciate the Corps' use of the Coastal Storm Modeling System (CSTORM) to look at hurricane conditions for capturing high water levels; the Corps must also look at extreme low water levels caused by prolonged droughts. By looking at the minimum low freshwater flow, the model will better predict the maximum extent of saltwater intrusion. There have been numerous severe droughts over the last 10 years in the Mobile Bay area and the failure to look at how these relatively common droughts (some lasting for several months) will interact with a deeper channel will result in an underestimation of the project's impact on wetlands, etc.

WETLAND IMPACT ANALYSIS

Wetlands are known to provide several important ecological functions such as water purification, shoreline stabilization, flood protection, groundwater recharge, nutrient recycling, particle retention, surface water and subsurface storage, and habitat for fish and wildlife. They add intrinsic value to the community. The final EIS for Charleston's Harbor expansion indicated unavoidable impacts to 324 acres of wetlands from increases in salinity; requiring mitigation plans to preserve 665.6 acres of wetlands.[1] Similarly, the Savannah Harbor Expansion Project (SHEP) determined there would be "minor adverse effects to the fish and wildlife habitat function in 223 acres of tidal freshwater wetlands" and a conversion of 740 acres of saltmarsh to brackish marsh as a result of the project.[2] Both of these impact statements found adverse effects to local wetlands mainly from saltwater intrusion. Deepening the channel can increase saltwater intrusion[3], causing seawater to advance farther upstream. Changing the salinity regime threatens the freshwater and estuarine wetlands and ultimately the species that rely on them. We are concerned that by using a one-year simulation of 2010, the model used to predict how far and the extent of saltwater intrusion is not accurate, thus showing no significant impact with project. The SLR scenario did indicate 10 acres of wetlands would be inundated, and the Corps considered this to be "negligible." The Corps must understand where these 10 acres are and evaluate its importance to the system as a whole. The Corps must also address its lack of data with the mortality studies for wetlands, given that only 43% of the potential impact area could be studied and the real impact could be much larger.

SUBMERGED AQUATIC VEGETATION (SAV) IMPACT ANALYSIS

Submerged aquatic vegetation (SAV) is an important source of food for several species including manatees and over-wintering waterfowl. It provides habitat for macroinvertebrates and fishes, and helps prevent erosion through sediment stabilization. Over the past few decades, there have dramatic declines in the SAV population in Mobile Bay[4].

Changes to salinity from a deeper channel can modify the vegetative community (or SAVs) which can in turn, alter its use as protection for species and eliminate important food sources. Similar to our concerns detailed above for wetlands, this is also a concern for evaluating SAV population impacts. Results from the study indicated that four species, Eurasian Watermilfoil, Wild Celery, Southern Naiad, and Widgeon Grass were predicted to experience an increase in salinity. Many of these, although one even being invasive, are actually a food source to several local species including the endangered West Indian Manatee. Section 7(a)(2) of the Endangered Species Act (ESA) requires each

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[1] Final Report and Environmental Impact Statement for Charleston's Harbor Expansion

[2] Final Report and Environmental Impact Statement for Savannah Harbor Port Expansion http://www.sas.usace.army.mil/Portals/61/docs/SHEP/Reports/EIS/Section%201%20with%20TOC%20SHEP%20FINAL%20EIS.pdf

[3] Zhu, J., Weisberg, R. H., Zheng, L., & Han, S. (2015). Influences of channel deepening and widening on the tidal and nontidal circulations of Tampa Bay. Estuaries and Coasts, 38(1), 132-150.

[4] Barry A. Vittor & Associates. (2005). Historical SAV Distribution in the Mobile Bay National Estuary Program Area and Ranking Analysis of Potential SAV Restoration Sites. http://www.mobilebaynep.com/images/uploads/library/NEP_historicSAV.pdf

federal agency to "insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species" 16 U.S.C.A. § 1536. The Corps must consult with the Fish and Wildlife Service to evaluate the impact on the reduction of the manatee's food source.

The mortality of these species is also highly dependent on the duration of salinity increases experienced (some a month or more). The current analysis does not seem to simulate a scenario where this may happen, likely because a prolonged drought is not simulated. For instance, "an increase of 1.5 ppt above relative threshold values is unlikely to impact the 21 acres of Southern Naiad in question, unless these increased salinities have extended (i.e. multiple weeks) duration". This is an important factor the Corps must simulate in order to address uncertainty and properly estimate the likelihood for mortality from the proposed project.

SEDIMENT TRANSPORT STUDY

The Corps evaluated how the dredging and expanded dimensions will impact the sediment transport and ebb tidal shoaling. We appreciate the Corps conducting a 10-year simulation in addition to the one-year simulation. Storm surges and hurricane/tropical storm waves were not included in the modeling and this largely limits the peak wave characteristics needed to understand how these may impact processes with new project dimensions. The Corps must include storm surges associated with strong storms and waves seen during tropical weather. Another factor that must be included in the modeling efforts is the riverine effects from the river inflow as it plays a key role in the overall hydrodynamics and sediment load. Any study that does not include these crucial factors is incomplete, the opposite of "high quality" and does not fulfill the requirements of NEPA.

Results from this study indicate that "for the 10-year simulations, there were larger changes in bed levels with the proposed channel deepening; at the end of 10 years, the largest changes were offshore of the Fort Morgan Peninsula and ranged from −3.17 to 3.94 m for the simulation without Sea Level Rise (SLR) and −1.92 to 1.47 m for the simulation with 0.5 m of SLR. The with project implementation condition reduced the entrance channel shoaling volume by 5.54 percent for the simulation without SLR and 14.98 percent for the simulation with 0.5 m of SLR." However, when describing these results the Corps indicates these changes are only minor impacts to the peninsula. The findings indicate that sediment is being transported away from the ebb tidal shoal, and that as a result of the channel modifications; morphological changes are anticipated in nearshore areas. The reduction of shoaling between 6 and 15% are not "minimal differences".

IMPACTS TO WATER QUALITY

Dredging can cause an increase in suspended sediment concentrations or cloudy water conditions, the potential release of contaminated material, an increase in erosion to nearby shorelines, and the disturbance of habitats particularly within the vicinity of the dredging activities. During this activity, fine sediments (including clays, silt, and fine-sands) generate turbid conditions. Turbidity plumes and

sedimentation are a result of overflow and washing practices. The sediment plumes can extend long distances depending upon the type of dredge, operation practices, wind/currents, and the type of sediments located in the excavation area. From Newell and Siederer 2003, referenced by the Corps in the DSEIS, these plumes "in most cases, coarse material up to sand-size particles settles within 650 to 1,970 ft of the point source of discharge". Based on these distances, the Corps must study the area that will experience an increase in turbidity and suspended solids from the proposed dredging operations. This must be identified to ensure there are not sensitive habitats/species to consider the impact that may occur from the extent of the plume.

The Corps is not considering the impact of dredging on the water quality of the surrounding areas because "results of the water quality modeling indicate that the predicted levels of total suspended solids are representative of the observed data…subsequently, there would be no expected increase in the concentrations of the turbidity as a result of the implementation of the TSP" (5.5.4.2.1. Project Construction pg. 5-14). This is inconceivable. The Corps must specifically quantify the proposed project's impact on aquatic resources as a result of an increase in turbid waters from dredging.

CONCERNS WITH FLUID DYNAMICS

It is vital that the Environmental Fluid Dynamics Code (EFDC) include an additional model to show how pathogens move through the system and how that may change with the new channel dimensions. Scientists with similar modeling have described the ship channel as a funnel for the Mobile WWTP at McDuffie. The Corps is required to model how the project may alter the flow of effluent from this facility with the new dimensions of the channel post expansion.

Another important area to model when considering how the channel expansion may impact the dynamics of the system is what comes into the Bay from the gulf. Two main concerns are how harmful algal blooms (HABs) and oil coming from an offshore spill may be brought further up the Bay with the new channel configuration. HABs are harmful to human health, replace key food sources, clog fish gills, and lowers oxygen conditions after they die. It will be important to evaluate the risk of gulf HABs entering Mobile Bay after the expansion. Similarly, it will be vital to assess the flow of oil after a spill offshore and to what extent that oil will travel up the Bay given the new channel design. Both of these are essential factors are unfortunately increasing in their frequency are necessary to understand the risks associated. The Corps must model how both of these factors could change with the project implemented.

ACKNOWLEDGEMENT OF PAST IMPACTS IN THE CUMULATIVE IMPACT ANALYSIS

Under the National Environmental Policy Act and the promulgated regulations, federal agencies (including the Corps) are required to consider the cumulative impacts when making a decision. A cumulative impact is the "impact on the environment that results from the incremental impact of the proposed project when added to other **past** [emphasis added], present, and reasonably foreseeable future actions regardless of the agency (federal or non-federal) or person that undertakes such other

actions; cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. § 1508.7). To ensure compliance with NEPA requirements, the Corps must evaluate the previous study conducted in 1980 (and several USACE reports since then) to determine historic impacts relevant to the expansion being considered. This is of particular importance when considering cumulative impacts from the ship channel on the surrounding shorelines. At present, the Corps is only considering from 2011-2015 as the baseline conditions which largely miss the cumulative impact of the past 38 years of erosion issues along the shorelines of Mobile Bay and Dauphin Island.

INCLUSION OF INDIRECT IMPACTS

Under NEPA, the Corps must identify all indirect impacts resulting from the proposed ship channel enlargement[5] and perform compensatory mitigation for any unavoidable impacts. Indirect impacts are defined by NEPA as those impacts "caused by the action and are later in time and farther removed in distance, but are still reasonably foreseeable." These impacts "…may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems" (40 CFR § 1508.8).

The Corps is required to understand and predict the induced growth and encroachment or alteration effects[6] that will occur from the proposed ship channel enlargement and the indirect impacts that will occur from this induced growth. The high likelihood of induced growth is outlined by information provided by the Corps regarding this proposed project. In slides from the Corps' public meeting in September 2017, the Corps stated that there was a record 19% growth in containerized cargo in 2016 and a 25% increase in truck traffic with the build out of the container terminal.[7] Based on this evidence provided by the Corps, the enlargement of the Port of Mobile will induce substantial growth not only around the Port of Mobile but also throughout the greater Mobile area as associated business, distributors, and suppliers grow to meet the needs of the expanded Port of Mobile. While this growth is a good thing for the economy of the Mobile area, the Corps must factor the indirect effects of this induced growth into its DSEIS.

AIR QUALITY CONCERNS

To ensure compliance with NEPA requirements, the Corps must evaluate the previous study conducted in 1980 (and several USACE reports since then) to determine historic impacts on air quality. By only considering 2011 as the baseline conditions, cumulative impacts of the past 38 years on air quality are left unaddressed.

Although the Corps conducted an air quality analysis model to assess the Clean Air Act criterion air

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[5] 40 C.F.R. § 1508.8

[6] 3 NCHRP Report 466, "Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects" (2002), p. 55.

[7] USACE Public Scoping Meeting Slides

contaminants, the model is based on an assumption of fewer ships calling at the port after implantation. Results predicted by the Corps indicate "the short-duration (e.g., worst-case) daily emissions at the port including vaporized volatile organic compounds released during the fueling process between larger ships and fuel farms could increase as a result of introducing large vessels, but the overall annual emissions associated with ship traffic would likely be less under the implementation of the TSP than the No Action Alternative" (5.14.3. Future Maintenance pg. 5-64). However, the Corps cannot accurately predict this. "Given the uncertainty of the mix and size of vessels using the port and the change in vessel travel time after channel deepening, a precise calculation of the annual emissions is not feasible." It is unacceptable for the Corps to have several impact analyses that contain an assumption that has yet to be validated and has been stated by the Corps as "uncertain".

The increase in truck traffic associated with the build out of the container terminal would result in an approximate 25% increase in truck traffic. Truck transportation related emissions would also increase as a result (by 25%), but the Corps has not studied the emission impacts to the travel corridors. The Corps must enumerate the air emissions anticipated from the increase in truck traffic and what areas will experience the highest increase in emissions. This is an indirect impact that must be acknowledged by the Corps and further studies are required to quantify this impact as a result of the project implementation. The Corps must offset these impacts with mitigation projects such as land acquisition, planting trees, creating parks, etc.

SHIP WAKE IMPACT ANALYSIS

The Corps conducted a ship wake analysis by estimating the Vessel Generated Wave Energy (VGWE) to see if the VGWE increases as a result of the project. We have concerns with several specifics of this study and question if all potential impacts were considered and studied.

The field portion of the investigation included "a suite of five pressure sensors located north of Gaillard Island" and site locations were chosen "based on availability of existing infrastructure to affix instrumentation" (Figure 1) (5.3.1.2.1. Ship Wake pg. 5-1). Although more easily available, these locations pose potential bias in the overall VGWE estimation. According to the 2016 calendar year, AIS database's summary of vessel speed, the upper and middle bay sections of the channel include the lowest vessel speeds (Figure 2). This location bias of these sensors must be accounted for when computing the VGWE.

Figure 1. VGWE field verification locations for sensor data extrapolated from Draft SEIS

Another factor not clearly incorporated into the equation is the projected load of the ships, impacting the draft of the ships. Currently, the container vessels travelling in the channel are approximately half-loaded due to depth restrictions in the channel. The Corps also must account for the change in VGWE when the vessels are fully loaded. The signal received for these vessels will change based on their ability to reach full bell. The Corps must account for this when looking at the difference of VGWE generated with the project implementation.

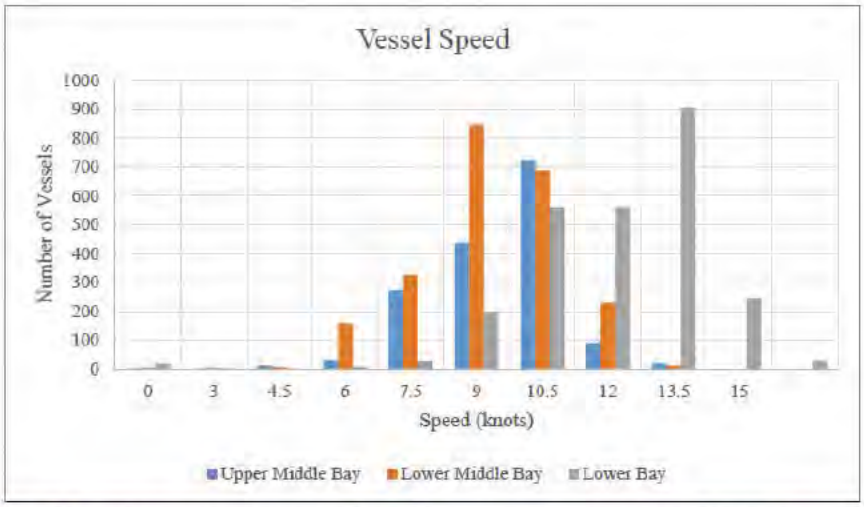


Figure 2. Variation of vessel speed for all classes and categories in Mobile Bay, Alabama with respect to three locations of interest extrapolated from Draft SEIS

The VGWE calculated also looks to be lacking incorporation of the projected fleet with project. Looking at the forecasted vessels calling to the Mobile Harbor, by 2035, the PPXGn3 will account for 27% of tonnage distribution, however this vessel class was not included in the computed VGWE (Table 1). The Corps must include this, especially when it is expected to make up a large portion of the expected fleet composition over the study period. This lack of information could impact the accuracy of the Corps conclusion.

Table 1. Computed VGWE of with and without project scenarios extrapolated from Draft SEIS

Vessel Class	2025 Arrival				2025 Departure			
	# of Vessels		VGWE		# of Vessels		VGWE	
	w/o Project	w/ Project	w/o Project	w/ Project	w/o Project	w/ Project	w/o Project	w/ Project
Bulk Carrier 1								
Bulk Carrier 2	4		0.048		3		0.106	
Bulk Carrier 3	229	223	3.303	1.914	169	163	4.949	2.800
Bulk Carrier 4	250	250	3.389	2.009	199	200	4.882	3.048
Bulk Carrier 5	38	36	2.051	1.168	39	38	2.562	1.607
Bulk Carrier 6	1	1	0.019	0.011	1	1	0.063	0.039
Bulk Carrier 7	6	6	0.111	0.066	6	6	0.407	0.270
Chemical Tanker	78	78	0.829	0.491	78	78	1.279	0.758
SubPX	10	10	0.220	0.130	10	10	0.199	0.118
Panamax	232	208	6.324	3.358	229	207	6.417	3.403
PPXGn1	117	118	5.214	3.503	119	118	5.363	3.718
PPXGn2	94	94	4.714	3.135	94	92	4.910	3.217
PPXGn3								
Cruise	91	91	1.806	1.071	91	91	1.748	1.036
General Cargo 1	199	199	2.011	1.192	200	200	2.141	1.269
General Cargo 2	146	146	1.623	0.962	147	147	2.096	1.242
Tanker Panamax	32	72	0.696	1.085	29	29	0.392	0.233
Aframax Tanker	72	32	3.294	0.742				
	1599	1564	35.650	20.838	1414	1380	37.514	22.759

In relation to ship wake, the Corps has not looked at energy tolerances for any of the important aquatic resources that are known to have sensitivity to wave energy. The Corps cannot know the project's impact to shorelines, wetlands, SAVs, oysters, etc. when these analyses were not conducted

in the study. Again, the Corps must consider the past impacts of the ship channel on these resources in the study per NEPA requirements.

The Corps needs to evaluate how a Vessel Speed Reduction (VSR) program would impact the project's impact on shorelines and air quality. There are several other locations that have successfully implemented VSR programs to reduce the negative impacts from ship wake and air emissions on their surrounding communities including the Port of Los Angeles, Port of Long Beach, Port of San Diego, Port Authority of New York and New Jersey. Several community members along the western shore of Mobile Bay have expressed great concern about the impacts of the project on their shorelines. The Corps must thoroughly consider this alternative and evaluate how different vessel speeds change the impact analysis. We have also submitted a letter to the Alabama State Port Authority and Mobile Bar Pilots requesting the implementation of a VSR program.

OYSTER IMPACT ANALYSIS

The Eastern Oyster (*Crassostrea virginica*), which is important both commercially and ecologically for the area, is a specific concern for the proposed project and current analyses for the impact on this species is incomplete and inadequate. It is of the utmost importance to accurately portray the oyster larvae movement and local reef recruitment to predict the impact the project will have on the oyster population. One of the main concerns with the proposed alterations to the navigation channel is the potential for more oyster larvae to be flushed out of the bay, reducing oyster recruitment. The Corps lacks accurate information about the movement of oyster larvae in the Mobile Bay system. The Corps must meet with local scientist, Dr. Carmichael (and associated scientists) about the published larvae movement model that includes several years of data and validated model to ensure trends seen in the Corps' model matches or follows trends seen in a highly credible source (40 C.F.R. § 1500.1(b)).

We are concerned with the findings of oyster larvae particle tracking resulting in 100% survivorship even though we know that higher values have been documented in credible models that already exist for Mobile Bay. The Corps concludes, "the oyster model results do not project an increase in larvae flushing out of Mobile Bay under the with channel modification project scenarios (i.e., Scenarios 2 & 4)". One of the major concerns with the model is that the seeding reef was limited to only one run from Brookley Reef. To ensure accuracy, the model must be run from all reefs relative to their productivity and, in particular, from Cedar Point.

The Corps used information provided from Alabama Department of Conservation and Natural Resources (ADCNR) and Alabama Marine Resources Division (MRD) to assess 13 adult oyster reefs for salinity and dissolved oxygen project mortality impacts for juvenile and adult oysters. Reef locations that were used in modeling were limited to only 13 reefs. However, there are additional sites that were not included in the analyses. The Corps must review side-scan sonar data collected through the National Resource Damage Assessment (NRDA) by local scientists including Dr. Sean Powers to include documented natural oyster reefs in the oyster impact analysis. It is also important to include

oyster reefs from Mississippi since it has been documented larvae come in from these sources and that could change with channel modifications.

Projected salinity and dissolved oxygen models need to include more than just physiological impacts to include other factors determining survival. The impact of predators on survival of oysters must be identified in the SEIS. This is particularly important because increases in salinity will likely drive a higher presence of predators such as oyster drills, which could play a major role in overall oyster survival.

FISH IMPACT ANALYSIS

The fisheries assessment analysis indicated, "values exceeding 3 ppt were projected for January – May" (5.8.7.2.1. Project Construction pg. 5-44) particularly at Little Sand Island. The Corps needs to identify what communities live in this area and then determine if they will be impacted from this major shift in salinity values. The Corps must consider evaluating local independent fisheries surveys conducted by Dr. Powers at the University of South Alabama to validate and fill in any data gaps from the data collected by the state and federal agencies. These independent fisheries surveys include trawl, seine, and gill net methods during summer and winter season that may be limited in the current study.

BENTHIC COMMUNITY IMPACT ANALYSIS

Benthic communities are known to play a critical role in the health and functioning of estuarine systems. We are concerned with the current impact analysis and how this may not accurately describe the impact from the proposed project. Sampling was limited to fall and spring and the spring sampling happened in a high freshwater inflow when salinity was less extreme. We suggest taking additional samples or coordinating with local benthic ecologists like Dr. Kelly Dorgan at the Dauphin Island Sea Lab to ensure full impacts to benthic communities are considered on the complete spatial scale. Additionally, we are concerned with a potential data gap in the Corps sampling for benthics. Benthic collection seems to only be from the upper channel and not where the proposed widening activities will take place in the lower Bay.

Although the Corps states that bottom habitats are dominated by polychaetes (who are more resilient to salinity changes), an increase of 1-3 ppt could have significant impacts to other less dominant (but important) species. The Corps must identify and quantify these impacts in more detail to understand the impacts from the proposed project.

INVASIVE SPECIES

Invasive species have the potential to threaten or displace native species, degrade habitats, and spread diseases. With anticipated increases in salinity with the project implementation, the potential for "tropicalization" or introduction of nonnative or invasive species into Mobile Bay and surrounding coastal areas may increase. The Corps must study the potential for the new channel dimensions and increased salinity/temperature regimes to result in more gulf species to enter new, more inland territories.

INCONSISTENCY WITH FEWER SHIPS WITH PROJECT IMPLEMENTATION

In our review, we noticed some inconsistences with the assumption of fewer ships "With Project" than "Without Project" that needs to be addressed.

Under 1.3.1. Problems, the Corps states that the "principal navigation problem is larger vessels are experiencing transportation delays and inefficiencies due to limited channel depth and width" indicating there is a need to expand to accommodate more ships. The Corps also stated that "existing channel dimensions also restrict many vessels to one-way traffic and in some areas limit transit operations to daylight only" suggesting the operation timeframe could be expanded in the future once the project is complete given a deeper and wider channel. The justification for much of the project is to "accommodate current and anticipated growth in containerized and bulk cargo vessel traffic". If the project's justification is to provide a better port for vessels to bring business to, then the assumption that fewer vessels will come post improvement seems counterintuitive.

Similar inconsistencies were seen in the Air Quality analyses. In section 5.14.3. Future Maintenance Section of Air Quality, the Corps states that "Due to the upcoming increase of the number of Post Panamax vessels in the world fleet and the opening of the Panama Canal expansion, the transition of larger vessels in the Gulf of Mexico is anticipated to occur with or without the proposed channel deepening" although does not account for if the improvements are not made, vessels may choose another port to call, reducing the amount of vessels without project.

Most notably, the Corps acknowledges the fact that if the channel is not expanded, vessels could choose another port – "If the channel is not widened and deepened, it is possible that the larger container ships would choose another available harbor for loading and unloading. This would result in less maritime traffic and less rail and vehicular traffic associated with the port" (5.15.1. Hazardous and Toxic Materials under No Action). This is a scenario that is not considered in the study. The Corps must evaluate this if they are basing the impact analyses on an assumption of more ships (and therefore more impacts) without the project than with the project. It is also likely that container ships may choose another port for loading and unloading if that port is more efficient/better cost savings than Mobile Harbor. Both of these possibilities should be considered.

Further, with plans to build the I-10 Bridge in the near future, the potential role in increasing economic growth and capacity in the area needs to be included and evaluated in the DSEIS. The I-10 Bridge may play a role in increasing demand and therefore increasing impacts.

Additionally, the build out of the container terminal, will also increase capacity and demand. With new projects like the $60 million automobile roll-on, roll-off terminal and Walmart's $135 million distribution center is demand not anticipated to grow at a rate that is more than heavily loaded vessels? This must be incorporated into the economic study.

CONCERNS WITH IMPACTS TO LITTLE SAND ISLAND

The Corps has identified potential impacts to resources from the Choctaw Pass Turning Basin expansion but does not consider these to be significant. From the slope stability analyses, it may "require excavation far enough back toward Pinto and Little Sand Island that it would, in effect, remove material that supports nearshore portions of the Pinto Island upland disposal area" (5.4.3.2.1. Post Construction pg. 5-8) and is stated to be finalized during the PED phase of the project. The Corps aquatic resources assessment also concludes potential impacts to "wetland communities that exist on and around Little Sand Island." Berkowitz et al. (2018) indicates these wetlands "are typical of those found in disturbed areas." This likely means these wetland resources are needed in order to balance the disturbed system, not as an excuse for them to be insignificant losses.

ENVIRONMENTAL JUSTICE CONCERNS

The Corps must comply with the Executive Order 12898 requiring federal agencies to ensure minority and low-income populations will not experience disproportionately high and adverse impacts from federal projects. Based on the study results indicating a 25% increase in truck traffic, the Corps must also look at the increase of emissions anticipated to be experienced from truck transportation travelling through neighborhoods, including those of minority and low-income populations. The Corps also indicated an increase in trucks carrying hazardous waste across the Cochrane Africatown Bridge by 2.5% that generates an increase of risk for an environmental justice community. Despite both of these increases identified by the study, the Corps has not acknowledged these as impacts necessary to mitigate. The Corps is required to mitigate for any unavoidable impacts as a result of the project implementation, and the increase in truck traffic emissions and increased risk of hazardous waste spills anticipated to be disproportionately experienced by the surrounding environmental justice communities must be communicated and accounted for in the final SEIS.

CONSIDERATION OF PLACEMENT SITES

Beneficial Use Areas

We appreciate the Corps working to find Beneficial Use Areas and considering the community's input on these options. We appreciate the Corps removing the Upper Beneficial Use Site, the construction of a 1,200-acre marsh island. In general, any option that is selected must be thoroughly studied to ensure the best possible option.

Relic Shell Mined Area

We are concerned with the Corps' use of 30-year-old surveys to determine the available relic shell mined sites (NOAA surveys between 1960 and 1961 and 1984 and 1987). Structured field verification is absolutely necessary to verify the use of these sites. Several hurricanes and powerful storms have happened since that time and may have changed and settled differently.

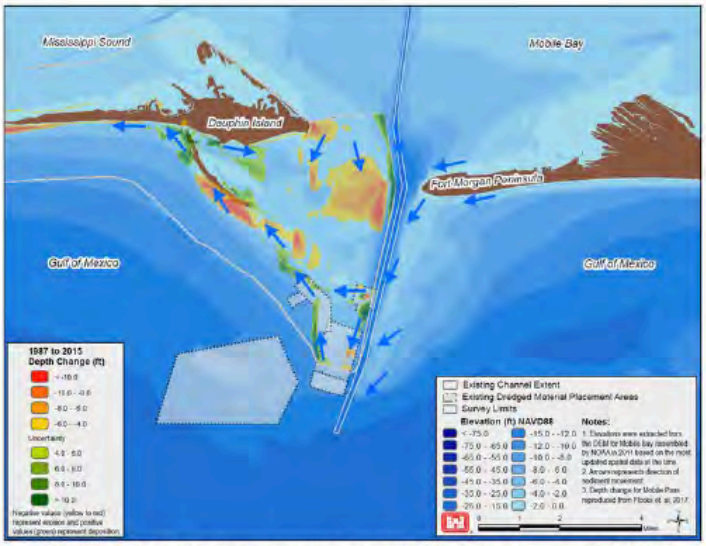
Specifically, scientists have tagged tarpon and red drum that are known to use these areas. Please coordinate with the University of South Alabama to acquire this information. The Corps does recognize, in Section 5.7.2.1., the various species utilizing the relic shell mined areas as habitat.

However, it states that the proposed fill will not destroy habitat. The Corps must acquire expert opinions (scientists, state agencies) to validate that the deeper holes are not utilized as habitat before disposing at these sites.

Sand Island Beneficial Use Area (SIBUA)

Given the low rate of replenishment to Dauphin Island, the Corps must expand the area to ensure better return rates and reduce negative impacts to Dauphin Island. If return rates are not accomplished, the Corps then must take an adaptive management approach to ensure it can be adjusted until successful. Furthermore, there should be additional studies to consider how the extension will replenish the W. shore of Dauphin Island and Little Sand Island.

The Corps has stated, "The rate of dredged material placement has been higher than the rate of transport out of SIBUA, leading to decreased depths" which indicates the replenishment to Dauphin Island is not happening at the rate of which was intended. From the Flocks et al 2017 study, we can see erosion along the W. shore of Dauphin Island and Little Sand Island.



Source: Depth change reproduced from Flocks, et. al, 2017.

Figure 2-9. Mobile Pass Bed Level Change 1987 to 2015 (+/- Erosion/Deposition)

Approximately 18.6 million cubic yards of new work material will be placed in the expanded Ocean Dredged Material Disposal Site (ODMDS). However, it should be emphasized that the approximately 1.7 million cubic yards of new work material from the Choctaw Pass Turning Basin expansion portion of the project "is anticipated to be predominantly clean sands with some pockets of silty sands" but is currently included in the ODMDS placement. The Corps must indicate in the SEIS that they intend to use this material for Beneficial Use (SIBUA extension or other) unless material is determined unsuitable (4.11.1. New Work Material Placement Options). The Corps must meet with the community to engage input on additional beneficial use placement areas.

Maintenance Dredge Material

The historical sand deficit caused by dredging and removal of sediment needs to be accounted for and added to the cost of further erosion from additional deepening and widening activities (and overall reduction of sediment supply to the littoral zone). Much of the maintenance dredge materials consist of sands found in the outer bar portion of the channel. As maintenance increases with project, and erosion of our shorelines continues to occur, there is a critical need for a better use of this material to replenish shorelines and continue to allow Dauphin Island to serve as a barrier island protecting the inland areas and key habitats that support our fish, crab, shrimp, and oysters.

DREDGE MANAGEMENT PLAN

With such a high occurrence of dredging planned and a large amount of dredge spoil needed for placement, we suggest the Corps consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area. This coordination and planning will improve the Corps ability to manage dredging activities, reduce negative impacts to aquatic species and mammals, and combine efforts for Beneficial Use options.

MONITORING

With a result of "no impact" from the proposed major project, the amount of uncertainty in identifying the impacts of the project, and the level of interest and concern from the community, the Corps should consider implementing a monitoring plan. The plan should extend at least 10 years after construction to ensure all impacts are considered. It should also include areas around dredging operations and beneficial use disposal areas.

MITIGATION

The Corps must consider our suggestions and others' comments to ensure the project's draft supplemental environmental impact statement is accurately estimating the unavoidable impacts to our important natural resources. We are very concerned with a project this large being proposed in a sensitive environment like an estuary and resulting in "no impact," which may indicate these studies *underestimate* the true impact. Once all feasible studies have been performed for the final DSEIS and avoidance and minimization has been considered, any remaining unavoidable adverse impacts to the environment must be addressed through appropriate and practical compensatory mitigation. We suggest including the community and environmental groups in the process of mitigation to select an existing needed project. Any mitigation identified should also directly correlate with the natural resource determined to be adversely impacted from the project's implementation. Several other port expansions have identified unavoidable impacts to wetlands, dissolved oxygen, and fish stocks. The Corps is required to carefully and comprehensively look at how this major project will impact our precious natural resources and mitigate accordingly.

COMMENTS SUMMARIZED

- As stated in our previous comment letter, we are concerned with the use of a one-year simulation (2010) as the basis of a number of the hydrodynamic, water quality and part of the sediment

transport modeling. These models play a role in identifying the potential impact on aquatic resources and given its limitation to one year, could ultimately underestimate the impact from the proposed project. The application must be at least a three-year simulation with a prolonged drought to better predict conditions post expansion.

- The Environmental Fluid Dynamics Code (EFDC) must include three additional models to show how pathogens, harmful algal blooms, and oil spills will move through the system with the new channel dimensions.
- To ensure compliance with NEPA requirements, the Corps must acknowledge the previous study conducted in 1980 (and several USACE reports since then) to determine historic impacts relevant to the expansion being considered (40 C.F.R. § 1508.7). This is particularly important as impacts to the western shoreline of Mobile Bay and Dauphin Island are historically significant and cannot be ignored.
- The Corps is required to model, understand, and predict the induced growth and encroachment or alteration effects that will occur and identify the indirect impacts that will occur from this induced growth.
- The VGWE may be underestimating the change in wave energy from the proposed expansion. The Corps must account for these inaccuracies and will need to conduct proper impact analyses from wave energy on aquatic resources (oysters, SAVs, etc.) and shoreline erosion.
    - For instance, the study has: 1) bias of sensors based on location and experienced vessel speed, 2) inaccurate expected drawdown measured from existing ship sizes versus those more heavily loaded, and 3) the exclusion of larger vessels like the PPXGn3 anticipated to call at the port post construction.
- Current analyses determining the impact from the proposed project on oysters are incomplete and inadequate.
    - The study fails to use credible high quality data on oyster larvae modeling that has been validated.
    - A major concern with the model for oyster larvae survival is the selection to release from Brookley Reef. The model must be run from all reefs relative to their productivity and, in particular, from Cedar Point.
    - Additional natural reefs exist that the Corps has not considered. The salinity and dissolved oxygen project mortality analysis for juvenile and adult oysters were conducted on only 13 adult oyster reefs provided from ADCNR and MDR. These do not include several other natural reefs that have been identified from local scientists through side-scan sonar methods. The Corps must acquire this data to include these sites in the analyses for the final SEIS.
    - The modeling has also only looked at physiological impacts from salinity increases and not other important factors impacting oyster survival. The Corps must model the potential increase of oyster drills from salinity increase and how that may impact oyster survival rates.
- Wetland impacts may be underestimated from the use of a one-year simulation of 2010 that may limit the ability to predict the extent of saltwater intrusion and the ability to only look at 43% of

the potential impact area. The SLR scenario did indicate 10 acres of wetlands would be inundated, and the Corps considered this to be "negligible." But the Corps must understand where these 10 acres are to evaluate its importance to the system as a whole.

- Impacts to SAVs have been identified by how they will impact local species that rely on them, including the West Indian Manatee. The study does not adequately incorporate prolonged exposure to salinity, despite its harm to the species in question. The Corps must look at the maximum length of exposure anticipated of higher salinities and how frequent this may occur to determine overall mortality from the proposed project.
- The fisheries assessment analysis indicated, "values exceeding 3 ppt were projected for January – May" particularly at Little Sand Island; and therefore, the Corps must determine if fish species in that area will be impacted from this major shift in salinity values.
- Benthic sampling was limited to fall and spring and primarily in the upper portions of the Bay. The Corps must seek existing datasets or increase field verification to account for these data gaps. An increase of 1-3 ppt in the bottom habitats could mean significant impacts to other less dominant (but important) species. The Corps must identify and quantify these impacts in more detail.
- The Corps must assess the potential increase of nonnative or invasive species entering into Mobile Bay and surrounding coastal areas from increased salinity/temperature as a result of new channel dimensions.
- Inconsistences exist throughout the DSEIS regarding the Corps' assumption that fewer ships will use the channel "With Project" than "Without Project" and include unreliable assumptions that must be addressed.
- Impacts that have been identified to Little Sand Island/Pinto Island need to be explained in more detail, and the species currently utilizing this resource needs to be investigated.
- Air quality study contained a recent baseline of 2011; the Corps is required to consider previous impacts from the SEIS in 1980. The Corps' assumption that there will be fewer ships in the future (and therefore less air impacts) must be validated.
- We are concerned with the indirect impacts of 25% increased truck traffic and a 2.5% increase in petroleum and hazardous materials that will be transported through environmental justice communities. How will the Corps mitigate this impact?
- More current surveys and verification with local scientists and state agency data on fisheries and benthic assemblages are needed to validate the use of the relic shell mined areas for beneficial use of dredge spoil placement.
- We encourage the Corps to use the approximately 1.7 million cubic yards of new work material from the Choctaw Pass Turning Basin that is likely made of clean sands for Beneficial Use and not dispose of in the ODMDS. We encourage the SIBUA be expanded, and suggest the Corps monitor its ability to increase return rates and apply an adaptive management strategy to get the highest effectiveness possible with this site.
- We suggest the Corps consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area.

- The monitoring plan should extend at least 10 years after construction to ensure all impacts are considered. It should also include areas around dredging operations and beneficial use disposal areas.
- We are concerned with a project this large being proposed in a sensitive environment like an estuary and resulting in "no effects," which may indicate these studies underestimate the true impacts.

Mobile Bay is valuable to several industries including: commercial and recreational fisheries, tourism, coastal development, and recreational activity. Each of these industries contributes significantly to our economic prosperity and growth making it vitally important to evaluate all potential impacts to our natural resources. To protect our economy, community, and quality of life, we must ensure that we mitigate for any impacts associated with a major development project. Mobile Baykeeper recognizes the economic value of the Port as it contributes $19.4 billion to our regional economy and knows that improvements could make our Port more competitive in the industry.[8] The DSEIS currently contains major data gaps and issues that need to be addressed before the final study release. It is of the utmost importance to thoroughly study the proposed port expansion so that we can grow responsibly and ensure negative impacts to the very natural resources that support so many economic sectors and our quality of life are effectively minimized.

Mobile Baykeeper appreciates the opportunity to provide input on the Mobile Harbor General Reevaluation Report and the DSEIS. We understand this is a long and tenuous process and appreciate the Corps taking the time to address the public's concerns and take comments into consideration to ensure all impacts are properly evaluated.

Thank you in advance for your consideration and response to each of these comments. We request a written response to each of the provided comments. Please feel free to contact us with any questions at (251)-433-4229.

Sincerely,



Casi (kc) Callaway
Executive Director

Cade Kistler
Program Director

Laura Stone Jackson
Program and Grants Coordinator

Debi Foster
Peninsula of Mobile

Tammy Herrington
Conservation Alabama Foundation

CC: Fish and Wildlife Service, Alabama Department of Environmental Management, EPA Region 4

[8] USACE public scoping document

Comment 3

From:	Rees, Susan I CIV USARMY CESAM (US)
To:	Parson, Larry E CIV CESAM CESAD (US); McDonald, Justin S CIV USARMY CESAM (US)
Subject:	FW: [Non-DoD Source] Mobile Ship Channel Expansion (UNCLASSIFIED)
Date:	Wednesday, September 19, 2018 1:50:26 PM

CLASSIFICATION: UNCLASSIFIED

-----Original Message-----
From: Justine Herlihy [mailto:info@email.actionnetwork.org]
Sent: Friday, September 14, 2018 11:07 AM
To: Rees, Susan I CIV USARMY CESAM (US) <Susan.I.Rees@usace.army mil>
Subject: [Non-DoD Source] Mobile Ship Channel Expansion

Susan Rees,

Dear District Commander,

I appreciate your efforts to date and am excited for the possibilities an expansion of our port could bring. In reviewing the draft plan, I can't help but notice the omission of probable environmental impacts. In the history of time, no expansion of this magnitude and many smaller projects have not produced environmental impacts of some kind. The statement of "no impact" is confusing to the public as it goes against ones natural inclination that to alter an otherwise environmentally stable space causes an impact, of some kind, at some point. Our quality of life on the Gulf Coast is dependent on our natural resources and threats to these resources should not be discounted. I am writing to ask the Corps to not skip this very important step and to evaluate the potential impacts. I know the target completion date of this project is a major factor and likely the cause of this grave omission, but once environmental impacts are carelessly overlooked in these moments our natural r esources will suffer into perpetuity. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts, to ensure the public can fully trust agency's to do what is right, and does not need to underestimate the lasting impacts an expansion of this size will cause for a lifetime and for future generations:

1. Changes to Salinity (deepening can change saltwater levels) - Too much saltwater can have negative impacts on fisheries including spawning.

2. Bay Shoreline Erosion (from increased ship wake) - Stable shorelines are important because they protect us against storms, provide us with beautiful beaches, wildlife habitat, waterfront homes, and more.

3. Loss of Grass Beds (from ship wake and dredging activities) - We need seagrasses because they provide much of our sea life with a food source and shelter, along with other important services such as improving water quality.

4. Impacts to Sea Life (from dredging activities and saltwater changes) - From the smallest organisms like oysters to the largest ones like manatees, we want to make sure The Corps is studying all of the potential impacts this plan could have on these important creatures.

5. Timing and Method of Dredging (associated with deepening and widening the ship channel) - Poorly managed dredging can cause fish kills and create cloudy water conditions that have a negative impact on seagrass growth and fish feeding.

I value your time and hope that you will value my concerns as this project moves forward. In any decision we make, we have the opportunity to do what is right or what is cheap and easy - I ask you to do what is right for our home.

My Best,

Justine Herlihy

Justine Herlihy
[redacted]
Mobile, Alabama 36607

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CLASSIFICATION: UNCLASSIFIED

Comment 4

From: Gary D Warner
To: Mobile Harbor GRR
Subject: [Non-DoD Source] dredging of Mobile ship channel issues
Date: Tuesday, September 18, 2018 10:15:33 AM

To mitigate for the historic and ongoing erosion of Dauphin Island and the smaller Sand/Pelican Island to the southeast, two separate but related actions are needed;

* During maintenance dredging of the Bar Channel, all dredged sand should be placed in the shallow waters (i.e., between 0 to <15 feet) atop the shoal stretching between Sand Island Lighthouse and the east end of Sand/Pelican Island. Essentially 100% of the sand placed in the shallow waters along the top of the submerged shoal should be rapidly incorporated into the natural littoral drift system and moved to restore Sand/Pelican Island and nourish Dauphin Island's eroding Gulf shoreline. The Mobile District of the Corps already has the necessary Congressional authority to undertake that mitigation action as provided by Section 302 of the Water Resources Development Act of 1996. Section 302 was specifically enacted to modify the Mobile Harbor project to allow dredged material to be beneficially used and and to pursue environmental restoration. All the Mobile District has to do is demonstrate the will to apply that existing Congressional authority to modify current maintenance practices for the Bar Channel. However, this mitigation action would only mitigate for the present and future erosion of Dauphin Island.

* To mitigate the historic shoreline losses of Dauphin Island, a much larger project action is needed. That mitigation measure should move by dredging to the Dauphin Island shoreline the millions of cubic yards of sands the Mobile District has removed from the Bar Channel since 1999 that have accumulated within the so-called Sand Island Beneficial Use Area (SIBUA). Those beach quality sands originally came from the Fort Morgan Peninsula and would have been transported by littoral drift to Dauphin Island if the Mobile District had not intercepted the sands by maintenance dredging of the Bar Channel. The millions of cubic yards of accumulated sands now sit a short distance offshore in waters too deep for them to rejoin the littoral system by natural wave and current action. It is these sands that were removed from the littoral drift system that have contributed to the present "sand starvation" of Dauphin Island. The Town of Dauphin Island developed the design details of a project in 2011 that would use around 4 million cy of these sands at an estimated cost of $59 million to restore the island's eroded shoreline which could be readily implemented and/or expanded with little further study.

Such a mitigation project could be paid for by either of two viable approaches:

1. According to the Draft GRR/SEIS, the recommended Mobile Harbor deepening project is predicted to generate average net benefits of $34.5 million per year in excess of cost. Thus, mitigation could be paid for with the benefit stream predicted be generated in just two years of operation of the deepened channel. All the Mobile District has to do is recommend this mitigation measure be included in the project recommendation to deepen Mobile Harbor.
2. Alternatively, the Mobile District could proactively work with the Alabama State Port Authority, the Governor of Alabama and other parties to select for implementation Project ID No. 92 ("West End Beach and Barrier Island Restoration Project") from the list of Alabama Coastal Restoration Suggested Projects being considered by the Alabama Gulf Coast Recovery Council. That approach would allow the mitigation project to be paid for with Deepwater Horizon Oil Spill related monies instead of being charged to the Mobile Harbor Deepening Project.

Comment 5

From: Communications Team
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Tuesday, September 18, 2018 9:52:46 AM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,
Boris Kresevljak

Communications Team
communications@mobilebaykeeper.org

4212 Carmel Drive, North
Mobile, Alabama 36608

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From: Leaptrott, Lacey M
To: Parson, Larry E CIV CESAM CESAD (US); Kovacevich, Caree C CIV USARMY CESAM (US)
Cc: Hughes, Scott; Brown, Scott; Phelps, Cline Allen
Subject: [Non-DoD Source] FP18-MH01-09 / ACAMP-2018-345A / Public Notice Comments
Date: Tuesday, September 18, 2018 8:49:48 AM
Attachments: sharp@adem.state.al.us_20180918_073049.pdf

Good morning,

Attached are comments received by the ADEM regarding FP18-MH01-09.

Respectfully,

Lacey M. Leaptrott

Environmental Scientist, Sr.

Alabama Department of Environmental Management

Mobile Branch | Coastal Section

3664 Dauphin Street, Suite B

Mobile, Alabama 36608-1211

Ph: (251) 304-1176

Fax: (251) 304-1189

lacey.leaptrott@adem.alabama.gov <mailto:lacey.leaptrott@adem.alabama.gov>

Comment 6

Leaptrott, Lacey M

From: [redacted]info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 10:39 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Auburn, Alabama 36830

Comment 7

Leaptrott, Lacey M

From: [redacted]gmail.com <info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 10:42 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Mobile, Alabama 36602

Comment 8

Leaptrott, Lacey M

From: [redacted]<info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 10:50 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel.

This issue is of vital interest to all of us on the shores of Mobile Bay. No efforts were made to hold public events on the Eastern Shore nor in down-the-bay communities.

It is disingenuous to suggest that there are no far-reaching impacts. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

This issue is of vital interest to all of us on the shores of Mobile Bay. No efforts were made to hold public events on the Eastern Shore nor in down-the-bay communities.

Sincerely,

[redacted]
Fairhope AL 36532

[redacted]
Fairhope , Alabama 36532

Comment 9

Leaptrott, Lacey M

From: [redacted]<info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 10:59 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

[redacted]

Fairhope AL, Alabama 36532

Comment 10

Leaptrott, Lacey M

From: [redacted]<info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 11:02 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I don't live in Mobile anymore but I spent my entire childhood and much of my adult life there. I would be living there if I could. It is forever my home and I feel strongly about protecting what makes it special.

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Dallas, Texas 75219

Comment 11

Leaptrott, Lacey M

From: [redacted]bellsouth.net>
Sent: Friday, September 14, 2018 11:04 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Mobile, Alabama 36608

Comment 12

Leaptrott, Lacey M

From: [redacted]@bellsouth.net>
Sent: Friday, September 14, 2018 11:04 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Mobile, Alabama 36604

Comment 13

Leaptrott, Lacey M

From: [redacted]@bellsouth.net>
Sent: Friday, September 14, 2018 11:18 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.
I feel that you should look into how the changes will impact the breeding grounds of the shrimp and crabs.
Sincerely, Alvin L. Allen

Saraland, Alabama 36571-2615

Comment 14

Leaptrott, Lacey M

From: [redacted]mchsi.com>
Sent: Friday, September 14, 2018 12:10 PM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,
Mobile Bay is very precious. When I was a child there were no Brown Pelicans in Mobile Bay. My father told me that when he was a child there were many pelicans. My children and grandchildren hear this story over and over, so they don't forget that it is our responsibility to protect our environment. For the past 10 years I contributed to Mobile Bay raising baby oysters on my pier as part of the Dauphin Island Sea Lab/Auburn program to replenish the oyster beds. I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life. We saved the Pelicans, please save the oysters and the sea grass

Sincerely,

Point Clear, Alabama 36564

Comment 15

Leaptrott, Lacey M

From: [redacted]bellsouth.nwt>
Sent: Friday, September 14, 2018 11:56 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Pt Clear Al, Alabama 36532

Comment 16

Leaptrott, Lacey M

From: [redacted]info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 11:45 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

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The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

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The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

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The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

MOBILE, Alabama 36606

Comment 17

Leaptrott, Lacey M

From: [redacted]bellsouth.net>
Sent: Friday, September 14, 2018 11:38 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

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The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

MOBILE , Alabama 36619

Comment 18

Leaptrott, Lacey M

From: [redacted]info@email.actionnetwork.org>
Sent: Friday, September 14, 2018 11:27 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

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The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

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The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Fairhope, Alabama 36532

Comment 19

Leaptrott, Lacey M

From: [redacted].net>
Sent: Friday, September 14, 2018 11:25 AM
To: Kelly, Russell
Subject: My comments on the Mobile Ship Channel expansion DSEIS

Russell Kelly,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

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The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

I am a homeowner on the bay of the Eastern Shore and wishing we had our grass beds back like we did 20 years ago. I am farming oysters for fun and helping the bay water, but what is this project going to do to the salinity in the bay? Mobile Bay's economic impact from recreation is far greater and safer than from Industry.

[redacted]

Fairhope, Alabama 36532

Comment 20

From: [redacted]
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Glen Coffee comments on Mobile Harbor Draft GRR-SEIS
Date: Tuesday, September 18, 2018 12:08:23 AM
Attachments: 2018-9-16 [redacted]omments on Mobile Harbor Draft GRR-SEIS.pdf

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My comments on the Mobile Harbor Draft GRR-SEIS are attached.

Thanks

[redacted]

September 16, 2016

[redacted]

COL Sebastien P. Joly, Commander
US Army Corps of Engineers
PO Box 2288
Mobile, Alabama 36628-0001

Dear COL Joly:

This is to provide the Mobile District with my attached comments on the Draft Mobile Harbor Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (Draft GRR/SEIS). In developing my comments, I have tried to provide your staff with an explanation for my views. To help your staff appreciate the essence of each of my comments, I have used bold lettering, so they can concentrate their response on that portion of each comment where I did that.

Many of my comments center around the following three specific issues:

- During the almost 20 years dredged sands have been placed in the existing SIBUA, that disposal site has consistently not functioned as the Mobile District repeatedly said it would in returning sands to the littoral drift system to counter the erosion of Dauphin and Sand/Pelican Islands. Using your staff's own numbers, 58% of the placed sands accumulate annually in the SIBUA. That represents a significant disruption of the littoral drift system. Of the 42% of the sand volume the Mobile District says leaves the SIBUA annually, your staff is unable to say with certainty if that entire percentage rejoins the littoral drift system. The significant historical and ongoing erosion of the two identified islands indicates most of the 42% volume does not reach the islands. The Mobile District has so far provided no scientifically based evidence to support its contention the proposed SIBUA expansion will function any better in restoring sand to the littoral drift system than the current SIBUA configuration has done during the almost 20 years it has existed. The only sure way to adequately bypass dredged sands across the Bar Channel is to discharge the sands in the shallow waters atop the ebb-tidal delta shoal platform (known to fishermen as the Sand Island Bar) that stretches between Sand Island Lighthouse and the east end of Sand/Pelican Island. That method of disposal may add to the cost to maintain the Bar Channel. The concerned public says: So what? The Alabama State Port Authority has enjoyed the benefits of the ship channel for years, while others less well-connected politically have had to bear the brunt of the environmental damages that maintaining the Bar Channel has created – and this does not consider the various environmental resources that are being harmed because Alabama's politicians could care less about those losses. You, as the new Mobile District Commander, have the opportunity to right some of the wrongs that have been allowed to occur over the years.

- Based upon a 14-page Environmental Assessment (EA) and a 404(b)(1) Evaluation Report of essentially the same length, in 2014, the Mobile District determined that a return to open water disposal in Mobile Bay using the thin layer approach would benefit the bay's environment. The EA presented no factual data and referred to no studies or the scientific literature to support the alleged environmental benefits. Instead, only three extremely cryptic and illusionary sentences were contained in the EA, alleging the bay would benefit from having 4,000,000 cy/year of fine-grained sediments spread over thousands of acres of bay bottoms up to a foot in thickness, each and every year in perpetuity or until the thin layer sites could no longer accept more dredged material. The real driving force behind the 2014 change in the disposal method was not unsubstantiated environmental benefits, but the desire to reduce the O&M cost of the Mobile Harbor project by no longer having to carry the dredged material to the offshore ODMDS as required by the WRDA of 1986. What is important for you to know is the Mobile District made the change to thin layer disposal without having the courtesy to ask the public (comprised of diverse groups who depend upon and use the bay for a variety of purposes) what they thought about the thin layer disposal method. An obscure Public Notice distributed on the internet was the only news the public received after the decision was technically made by the Mobile District. Now the GGR/SEIS is recommending a further 500,000 cy/year of sediments that will have to be dredged each year to maintain the increased 5-foot depth of the Bay Channel. The Draft GGR/SEIS references the 2014 EA in repeating the contention the Mobile Bay environment will benefit from the annually repeated disturbance of thousands of bay bottoms being covered with dredged sediments, while again providing no evidence or even a general description as to what the alleged environmental benefits may be. The Draft GGR/SEIS even goes as far as to say that not even the turbidity will be increased in the areas of the bay on which the dredged material will be discharged. If the Mobile District is unable to provide hard evidence and indisputable facts of the alleged environmental benefits to Mobile Bay, the District must reconsider its decision to return to open water disposal in the bay. The public will demand more information on this important and significant environmental impact issue in the Final GRR/SEIS.

- Economic justification of the TSP was based upon an evaluation of benefits and costs over the requisite 50-year period of analysis. The cost side of the BCR of 3.0 is sensitive to the projected O&M costs to dredge and dispose of an estimated 4,500,000 cy/year from the Bay Channel. A thorough study of the Draft GGR/SEIS reveals that the TSP does not represent a complete plan. That is because the report only describes with specificity where the dredged material will be placed during the first 20 years of the TSP's 50-year economic life. Based upon an annual dredging volume of 4,500,000 cy for the Bay Channel, during the last 30 years of the 50-year period of analysis, a total of 135,000,000 cy would be dredged. Since the remaining capacity of the Bay Channel thin layer sites after the first 20 years of use would be 59,594,000, there would be insufficient disposal capacity in the thin layer sites to accommodate 75,406,000 cy (135,000,000 minus 59,594,000) of sediments dredged from the Bay Channel during the final 30 years of the 50-year economic life of the TSP. Even if the future decision is made to use the remaining capacity of 52,000,000 cy in the ODMDS to receive the excess Bay Channel sediments, there would still be a remaining disposal capacity deficit of 23,406,000 cy

(75,406,000 minus 52,000,000) that would have to be satisfied during the final years of the 50-year period of economic analysis. The 23,406,000 cy is equivalent to the total volume of sediments that would be dredged during 5 years of maintenance of the entire 28.7-mile long Bay Channel. Since future satisfaction of that significant disposal capacity deficit could materially influence the cost side of the TSP's BCR, the GRR/SEIS must address the disposal capacity issue in considerably more detail for the entirety of the 50-year period of analysis. Otherwise, the present conceptual life cycle design for the TSP is incomplete since the ability to adequately maintain the deepened channel in a cost-effective and an environmentally sustainable manner is questionable. The incomplete nature of the TSP also creates NEPA compliance issues because the SEIS component of the report is unable to identify and adequately evaluate all potential effects that could result from the TSP.

I appreciate the opportunity to provide you my comments.

Sincerely

CC:
Sen Doug Jones
Sen Richard Shelby
Rep Bradley Byrne

Procedural Failings of SEIS Component of report

The Draft GRR/SEIS does not comply with §1508.25 of CEQ's NEPA Regulations because it continues the Corps' practice of segmenting the evaluation of Mobile Harbor project impacts by preparing multiple separate NEPA documents. Section 1508.25 which deals with scope of an EIS (i.e. range of actions, alternatives, and impacts), states that all **"connected actions"** (i.e., interdependent parts of a larger action, that both trigger other actions, and cannot proceed unless other actions are taken previously or simultaneously) should be addressed in the same EIS. This Section of the NEPA regulations also states that **"cumulative actions"** when viewed with other proposed actions having cumulatively significant actions should be discussed in the sane EIS. Lastly, the Section defines **"similar actions**" as those having similarities with other proposed agency actions having common timing or geography should be addressed in the same EIS when it is the best way to adequately analyze combined impacts.

The Draft GRR/SEIS represents the continuing Mobile District practice of segmenting disclosure of Mobile Harbor project impacts by preparing numerous individual NEPA documents since 2012 that have incrementally addressed individual actions in preparation for deepening Mobile Harbor. The current GRR treats the incremental deepening of the channel as a separate project by ignoring its implication on the O&M of the entire project.

For example, the July 2018 Draft GRR/SEIS identifies the SIBUA expansion as an element of the existing Without-Project (No Action) Alternative as if the expanded area had already been approved. In reality, the Environmental Assessment addressing the proposed SIBUA expansion was not completed until August 2018, a month after the July 2018 Draft GRR/SEIS was prepared. These two separate NEPA documents for Mobile Harbor had essentially the same public review period. Since expansion of the SIBUA was necessitated in part by the predicted 10-15% increase in maintenance quantities that would result from deepening the Bar Channel, the proposed SIBUA expansion should have been treated as a feature of the TSP of the TSP and included in the Draft GRR/SEIS.

Another example of segmentation is the July 2014 EA that evaluated the effects of converting the Bay Channel maintenance program from offshore disposal to in-bay thin layer disposal. The original authority to deepen Mobile Harbor was provide by the WRDA of 1986 which also required all maintenance material be carried offshore for disposal in the ODMDS. Section 302 of the WRDA of 1996 modified the project to provide the Corps the discretionary authority to "…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" The July 2014 EA was prepared to evaluate the environmental effects of the conversion to in-bay thin layer disposal on the premise that retention of dredged sediments in the bay would provide alleged, **but unsubstantiated**, environmental benefits to Mobile Bay. The July 2014 EA was prepared a year in advance of the start of the GRR Study. The timing of that event appears to have been an intentional effort by the Mobile District to "segment out" the thin-layer disposal component from the GRR Study so that thin layer disposal of 4,000,000 cy annually dredged sediments from the Bay Channel could be considered as an established and accepted feature of the existing O&M program (i.e., Without Project or No Action Alternative). That would allow the analyses of the TSP With-Project Alternative to consider the additional 500,000 cy/year of dredged material as an additive increment to the already established thin layer disposal practice to maintain the Bay Channel. Thin layer disposal would also allow the economic evaluations to consider the lower cost of thin layer disposal in developing the BCR presented in the Draft GRR/SEIS. In summary, the GRR Study was able to

consider thin layer disposal for the Bay Channel as an established and accepted O&M practice which allowed the GRR/SEIS to concentrate its analyses on only the 500,000 cy/year of to maintain the TSP increment of 5-feet of additional depth for the deepened channel instead having to analyze environmental effects of the entire 4,500,000 cy to be dredged from the Bay Channel and disposed annually by the thin layer method. **Neither the 2014 EA nor the 2018 Draft GRR/SEIS describe how the Mobile Bay system will benefit by disposing of 4,500,000 cy of dredged sediments in a thin layer over thousands of acres of bay bottoms each year in perpetuity.**

Looking beyond the current Draft GRR/SEIS now under review, the Mobile District and the Alabama State Port Authority have received approval (including $2,500,000) to pursue detailed design, prepare P&S, prepare a separate NEPA document, and to obtain a permit to construct a planned 1,200-acre "beneficial use" dredged material disposal island in Upper Mobile Bay to accommodate future Bay Channel maintenance requirements. That site is referred as the "Upper Mobile Bay Beneficial Use Wetland Creation Site". However, the Draft GRR/SEIS has intentionally omitted all reference to that planned disposal Corps by excluding all reference to that alleged "beneficial use" site in Section 4.2.3.2 which begins on page 4-17 and in Figure 4-9 on page 4-18 of the Draft GRR/SEIS. Since planning for the 1,200-acre island has moved beyond the concept stage, why did the Mobile District purposefully omit it from the Draft GRR/SEIS? Based upon the Mobile District's past actions of segmenting NEPA documents, it is an absolute certainty that as soon as the GRR/SEIS is finalized, the Mobile District will pursue the remaining activities leading to construction of the 1,200-acre dredged material disposal island, including preparation of a separate NEPA document.

Based on the above, it is clear that in regards the Mobile Harbor project, the Mobile District has regularly violated the spirit and intent of §1508.25 of CEQ's NEPA Regulations for years by addressing segments of the project in individual NEPA documents. It is also clear the Mobile District intends to continue that practice until required to stop as a result of a legal challenge. To avoid such a challenge, the Corps needs to develop a Master Plan and associated EIS **identifying all work** required to expand and maintain Mobile Harbor, for at least the next 20 years, with strengthened evaluations of alternatives to satisfy future disposal capacity needs beyond the 20-year planning horizon. 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. The Master Plan should be updated at 5-year intervals to examine the future maintenance capacity needs for the forthcoming 20-year period.

***The Draft GRR/SEIS does not adequately comply with Corps ER 1105-2-100 paragraph 4-1a(1) and §1508.7 of CEQ's NEPA Regulations concerning the coverage of the impacts of relevant past actions*.** Corps agency planning regulation ER 1105-2-100 (dated April 22, 2000) provides guidance that is to be followed by Corps districts when conducting a GRR Study. Paragraph 4-1a(1) clearly describes what a GRR Study is supposed to do:

> "(1) General Reevaluation. This is **reanalysis of a previously completed study** [emphasis added], using current planning criteria and policies, which **is required due to changed conditions and/or assumptions** [emphasis added]. The results may affirm the previous plan; reformulate and modify it, as appropriate; or find that no plan is currently justified. The results of the study are documented in a General Reevaluation Report (GRR).'

Section 1508.7 of CEQ's NEPA regulations also requires the cumulative impacts of past actions (including past actions both related to and relevant to the subject project being addressed in the NEPA document):

> "'Cumulative impact' is the impact on the environment which results from the incremental impact of the action when added to other **past** [emphasis added], present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions."

The June 24, 2005 CEQ memorandum to the heads of Federal agencies entitled "Guidance on the Consideration of Past Actions in Cumulative Effects Analysis" is especially applicable because of what it says about the need to consider relevant past actions related to proposed action under evaluation.

> "CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring analysis and a concise description of the **identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects** [emphasis added]."

In fact, the following excerpt from the first paragraph on page 6-2 of the Draft GRR/SEIS dealing with the identification of cumulative impacts acknowledges the GRR Study should have evaluated the effects of past actions in the report:

> "For the purpose of evaluating the effects of **past** [emphasis added], present, and reasonably foreseeable future actions, this evaluation focuses on (1) actions that would impact the geographic areas (noted below) that would be impacted by the proposed Federal action, (2) actions that affect the resources that are affected by the proposed action, and (3) the actions that would be induced by the proposed action. In accordance with the intent of the USACE planning modernization initiative, the analysis focuses on specific resources and impact areas of concern and excludes analysis related to areas and resources that would not be meaningfully impacted by the proposed action or induced actions. Also, in accordance with CEQ guidance, "agencies are not required to list or analyze the effects of individual past actions **unless such information is necessary to describe the cumulative effect of all past actions combined** [emphasis added]. Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions" (Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, CEQ 2005). **Focusing the analysis only on resources where there is a likelihood of reasonably foreseeable cumulative impacts supports the intent of the NEPA process** [emphasis added], which is 'to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives' [40 CFR Part 1500.2(b)] (Parson et al. 2015)."

The original 1980 Survey Report/EIS that is being reanalyzed in the current Draft GRR/SEIS failed to address the erosion of Dauphin Island or to evaluate how the recommended deepening of the Mobile Harbor Bar Channel would influence the island's significant erosion in the reasonably foreseeable future. The 1980 report's inexplicable complete silence on the connection between Dauphin Island's erosion issue and channel maintenance was inexcusable in view of the fact a previous 1978 Mobile District report concluded maintenance of the Bar

Channel was contributing to the erosion of Dauphin Island and had been doing so for years. The 1978 report attributed the cause of the erosion to the deposition of dredged sands in offshore Gulf waters that resulted in the sands being removed from the littoral drift system, which prevents the sands from being bypassed across the channel to be available to nourish Dauphin Island.

The public today is much better informed about the Dauphin Island erosion issue and its cause than in 1980. For that reason, the concerned public anticipated the GRR Study would correct the 1980 report's total omission of the Dauphin Island erosion issue in the resulting GRR/SEIS. However, beginning with the January 12, 2016 Scoping Meeting that launched the GRR Study, and despite repeated requests by the public, the Mobile District staff has steadfastly maintained the GRR Study would not consider the past erosional changes that have affected Sand/Pelican and Dauphin Islands since 1980. Instead, the Mobile District staff stated the GRR/SEIS would only evaluate present and projected future changes to the Study Area environment. **The Mobile District staff has never provided the rationale for the GRR Study's narrow evaluation time-frame that conflicts with both Corps agency planning regulations and the CEQ's NEPA regulations requiring past changes that have occurred in the Study Area since the 1980 report. By ignoring the significant erosion that has occurred during the intervening 38 years between the 1980 Survey Report and the present Draft GRR/SEIS, the GRR Study is continuing to perpetuate the original error of omission of the erosion issue in the 1980 report.**

The Draft GRR/SEIS acknowledges that of the 624,000 cy of dredged sands placed in the SIBUA on an average annual basis, only 260,000 cy is estimated to move out of the SIBUA. The Corps also has no study results to say with certainty where the 260,000 cy goes after leaving the SIBUA or what portion of that volume rejoins the littoral drift system to be ultimately transported to Dauphin Island. The accumulation of around 364,000 cy (624,000 minus 260,000) of accumulation dredged sands placed in the SIBUA represents a significant interruption of 58% of the natural littoral drift system moving west from the Fort Morgan peninsula annually. That interruption has been occurring each year for the last 19 years of the 38-year period. Thus, a theoretical total of 6,916,000 cy of sand has been removed from the littoral drift system by accumulating within the SIBUA during the most recent 19 years since use of the SIBUA began in 1999. Even more significant, all sands dredged from the Bar Channel between 1980 and 1999, totaling 14,588,078 cy, were disposed offshore in the deeper waters of the ODMDS. Thar maintenance practice in that 19-year period essentially intercepted 100% of the natural littoral drift, carrying it offshore for disposal, where it was permanently lost from the Alabama's western nearshore littoral drift system. The combined disruption and probable loss of around 21,600,000 CY (6,916,000 plus 14,672,078) of sands from the littoral drift sands over the last 38 years represents a significant cumulative past impact directly and indirectly attributable to maintenance of the Bar Channel. It also represents a valuable resource loss that has never been mitigated because the Corps consistently refuses to accept responsibility for the historic littoral drift sand losses resulting from maintenance of the Bar Channel.

The Draft GRR/SEIS provides no information as to whether the proposed SIBUA expansion will be more effective in bypassing dredged sands to return to littoral drift system west of the channel. Thus, it is likely the past and present disruption of the littoral drift system will likely continue unchecked into the reasonably foreseeable future. Those impacts will to be manifested in the continuing erosion of Sand/Pelican and Dauphin Islands. That erosion will continue until the Mobile District finally relents and begins to discharge the dredged sands in the shallow areas

atop the western ebb-tidal delta shoal between the Sand Island Lighthouse and the east end of Sand/Pelican Island.

The continued erosion of Sand/Pelican and Dauphin Islands since 1980 certainly represents a significant "changed condition" – not only within the Study Area, but also within the immediate Project Area since the SIBUA is the only disposal site designated to receive maintenance dredged sands from the Bar Channel. The 1980 Survey Report was deficient by completely ignoring Dauphin Island's erosion and the contributing role maintenance of the Bar Channel plays in the erosion problem, despite the clear fact the Mobile District was well aware of the erosion issue because the problem had been thoroughly analyzed in a previous 1978 report.

In conclusion, the historic and ongoing erosion problem clearly represents a relevant issue associated with maintenance of the Bar Channel that is proposed for deepening. The identifiable past and present erosion of Sand/Pelican and Dauphin Islands has resulted from the effects of past maintenance actions that are relevant to and useful in analyzing whether the reasonably foreseeable effects of the proposed channel deepening may have a continuing, additive and significant relationship to the shoreline erosion effects. Based upon the above analysis, the Draft GRR/SEIS is deficient because it fails to adequately comply with §1508.7 of CEQ's NEPA Regulations by not analyzing the effects and consequences of past impacts of channel maintenance on the erosion problem. The Draft GRR/SIS also fails to adequately comply with paragraph 4-1a(1) of Corps ER 1105-2-100 by not considering: (1) the effects of the significant erosion of Sand/Pelican and Dauphin Islands; (2)how the past erosion has changed conditions within the Study Area since 1980; and (3) if the proposed channel deepening could, after considering the effects of the past and present effects of current Bar Channel maintenance practices exacerbate the effects on shoreline erosion.

Executive Summary

The discussion of "Areas of Concern and Unresolved Issues" beginning on page ES-6 identifies several issues of concern to the public. The following comments are offered.

- ***Channel dredging disrupts the sediment transport to Dauphin Island.*** The public does not accept the results of the Corps' numerical modeling studies that "…indicate minimal differences in morphologic change in the nearshore areas of Dauphin Island and Pelican Island as a result of the channel modifications". The public rejects those studies because the **study results do not reflect or explain the observed actual shoreline losses that have occurred since the early 1970s when the Sand/Pelican Island stretched from the Sand Island Lighthouse northwestward to almost touch Dauphin Island.** Since the 1970s, there has been a steady erosive retreat of Sand/Pelican Island to the west. That change has been accompanied by a corresponding equally steady deepening of the remnant bar that now separates Sand/Pelican Island from the lighthouse. At the same time, Dauphin Island's Gulf shoreline has eroded as much as 200 feet or more to the north and the general topography of the island's western end has been greatly reduced. At varying times since the 1970s, the amount of annual littoral drift sands completely lost from the western ebb/tidal delta system because of maintenance dredging of the Bar Channel has ranged from as high as 100% to the present 58% based upon: (1) Corps channel maintenance records (see Attachment 1); (2) information presented by the Mobile District at the February 22, 2018 public meeting; (3) various portions of the Draft GRR/SEIS; (4) the findings and conclusions of the Corps' 1978 report; and (5) the professional views and opinions of numerous credible engineers and scientists that do not

agree with the numerical model study results contained in the Draft GRR/SEIS. The fact that the Draft GRR/SEIS admits up to 58% of the dredged sands now placed in the SIBUA are accumulating instead of rejoining the littoral drift system should be sufficient proof to indicate the models do not reflect actual conditions. The reduction of 58% of the littoral drift sands should be considered to represent a significant impact. **Since the numerical models used are unable to duplicate the actual observed changes that have occurred since the early 1970s in the nearshore areas west of the Sand Island Lighthouse and the Corps has provided no explanations as to why the observed shoreline losses are continuing to occur, it is logical for the public to reject the model analyses because either the model does not have the ability to replicate the observed historic changes or at the very best, the wrong questions are being asked of the model, or the data being fed into the models are either wrong or inadequate.**

- ***Placement location of Bar Channel material.*** The public is withholding support for the proposed SIBUA expansion to the northwest until the Mobile District provides the information identified in the below comments. The Mobile District must also provide assurances that are supported by sound scientific documentation that up to 100% of the dredged sands placed in the proposed SIBUA expansion will be reincorporated into the littoral drift system to nourish Sand/Pelican and Dauphin Islands, instead of the sand continuing to accumulate in the site as has been the case with both previous configurations of the SIBUA in 1999 and 2009, respectfully. The public will no longer accept the Mobile District's verbal promises that the proposed SIBUA expansion will function as promised, which the Corps has done several times since 1999 and with subsequent events proving the Mobile District was consistently wrong**. If the Mobile District really wants 100% of the placed sands to return to the littoral drift system, the District should: (1) require all future discharges of dredged sands be made in the shallow waters atop the ebb-tidal delta shoal between the lighthouse and the east end of Sand/Pelican Island; and (2) discontinue all discharges in waters deeper than 15 feet MLW. In the absence of information being provided by the Mobile District that the two above conditions will be met, there is no reason for the public to expect that the sand accumulation conditions that have characterized the SIBUA since 1999 will not continue into the foreseeable future. Is the Mobile District prepared to accept a continuation of the sand accumulations going forward?**
- ***Shoreline erosion caused by ship wakes.*** As discussed in the below comments, the numerical model used does not adequately reflect real world "wave energy" conditions produced by ship wakes that have been observed and experienced by a large segment of the public. The below comments suggest consideration be given to imposing speed limits on ships, particularly those that are fully loaded.
- ***Identify sufficient disposal site capacity to meet the dredging requirements of the entire Mobile Harbor project for the complete 50-year period of analysis.*** The inability of the Draft GRR/SEIS to identify sufficient maintenance disposal capacity for the Bay Channel increment of the TSP over the entire 50-year period considered is a major concern. The concern is associated not only with the need to satisfy the incremental disposal needs created by the 5-foot additional channel depth increment , but also for the larger requirements of the entire channel that must be satisfied on an annual basis. The Draft GRR/SEIS does not adequately address the long-term disposal capacity issue, nor disclose the potential environmental impacts associated with the Bay Channel maintenance program over the entire 50-year economic life of the TSP and the cumulative disposal capacity needs that the TSP creates and environmental consequences of the full maintenance program for the Bay Channel component of the Mobile Harbor

project. The biggest take away from the report review is that the Corps and the Alabama State Port Authority have no clue as to where all of future maintenance material dredged from the Bay Channel will be placed after the next 20 years. **Given the massive quantity of sediments to be maintenance dredged from the entire project over the next 50 years, the Final GRR/SEIS should devote greater attention to resolving this outstanding need instead of concentrating on justifying the TSP incremental depth increase on economics alone, with no regard for how that increment will be maintained over the entire 50-year economic life of the TSP. The existing ecological and physical constraints within Mobile Bay suggest the Mobile District and Alabama State Port Authority (ASPA) may have already reached the limit in deepening the Mobile Harbor project since it may no longer be possible to adequately maintain the navigation channel in the future without incurring excessive costs to do so and possibly incurring environmental impacts that will finally become unacceptable to most Alabamians. By converting to thin layer disposal in Mobile Bay in 2014 to reduce O&M costs, the Mobile District and the ASPA have created a conundrum of problems, the solutions for which will likely be unacceptable from an environmental standpoint looking forward into the foreseeable future.**

- ***The GRR/SEIS should provide a thorough explanation of the channel maintenance related erosion of the ebb/tidal delta and Sand/Pelican Island that has occurred since 1980 and which is attributable to the interruption of the natural flow of littoral drift sands by disposing of 100% of dredged sand offshore in the ODMDS between 1980 and 1999 and due to 58% of the dredged sands accumulating in the SIBUA between 1999 and 2018. That information is not included in the Draft GRR/SEIS.*** By selecting 2018 as the Baseline condition for analysis and only considering Present and Future Conditions (see Section 1.2 of Draft GRR/SEIS), the Mobile District has intentionally omitted any consideration of the Mobile Harbor project's past erosion-related impacts that have never been addressed in a NEPA document. **Instead, the Mobile District has established an analytical timeframe of only present and future conditions so as to intentionally ignore the past erosion of Dauphin Island that occurred between 1980 and 2018. Numerous sources (including the Mobile District's 1978 report) attribute the historic and ongoing erosion to maintenance of the Bar Channel to be a contributing cause of the erosion. Despite numerous public inquiries during the GRR planning process, the Mobile District has not provided an explanation for the Corps choosing to ignore the 38 years of past shoreline erosion impacts that have significantly weakened Dauphin Island. The Mobile District approach fails to comply with the requirements of the CEQ NEPA regulations and the Corps own planning guidance for GRR Studies**.

Sand Island Beneficial Use Area (SIBUA)

Explain why Dauphin Island's erosion related to maintenance of the Bar Channel was not identified or considered in the "Problems and Opportunities" evaluations performed for the GRR Study. Corps' Planning Regulations allow Sand/Pelican and Dauphin Islands' erosion "problem" to have been identified in the GRR as an opportunity to correct the "problem" by beneficially using dredged material in accordance with paragraph 2-3a in ER 1105-2-100. Throughout the GRR planning process, the Mobile District consistently ignored the public's request to take advantage of the "opportunity" to analyze a WRDA 1996 Section 302 disposal alternative to beneficial use dredged sands to restore Sand/Pelican Island and nourish Dauphin

Island. Based upon 19 years of SIBUA being ineffective, it is unlikely the proposed SIBUA expansion will perform any better in contributing a greater percentage of sands to the littoral drift system. This is particularly true if the Mobile District refuses to place the sands in waters less than 15 feet atop the ebb-tidal delta shoal. **Since 2011 when the Mobile Bay Interagency Working Group was created, the Corps has consistently applied the Section 302 authority to justify proposed "beneficial uses" of dredged material for the Bay Channel, but never to address identify a truly beneficial use of dredged sand from the Bar Channel. Why is that?**

Provide information showing water depths in proposed SIBUA expansion. Figure 8 on page ES-17 should be modified to clearly show water depths within the proposed SIBUA expansion. In addition, all discussions throughout Draft GRR/SEIS dealing with the expansion area should clearly state if future disposal will be placed in water depths less than 15 feet. Available science indicates that because of the low energy wave environment of the northern Gulf Coast, to retain sands in the littoral drift system, sands should not be placed at depths greater than 15 feet, with the amount of sand returned to the littoral drift system increasing with decreasing water depths in which placement occurs. **Since the Corps' historic assertions that the existing SIBUA configuration would effectively bypass dredged sand to return to the littoral system have consistently been proven to be incorrect over the years, what guarantees can the Corps provide that up to 100% of the sands placed in the SIBUA expansion will be reincorporated into the littoral drift system?**

The Mobile District admits to disrupting littoral drift of sand west of the Outer Bar Channel. The Draft GRR/SEIS acknowledges that 364,000 yd of the 624,000 cy of sand placed in the SIBUA on an average annual basis accumulates within the site instead of moving out to rejoin the littoral drift system as intended. That acknowledgement represents the first admission by the Mobile District since its 1978 report that maintenance of the Bar Channel is in fact interrupting the littoral drift process. **That is a significant admission, and the accumulation in the SIBUA of 58% of the dredged sands placed therein on annual basis represents a significant interruption of the littoral drift system which is supported by direct observation of the dramatic erosion and disappearance of Sand/Pelican Island over the last 20 years.**

The Mobile District fought a 10-year Class Action lawsuit over the Dauphin Island erosion issue, finally settling the lawsuit in 2009 by agreeing "…to deposit material dredged from the 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. In view of the Corps' admission that excessive quantities of dredged sands are accumulating in the SIBUA each year, of the five specified caveats, the following two are directly relevant to the present erosion situation and the ineffectiveness of the SIBUA in returning sands to the littoral drift system:

- (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 lawsuit was settled, the Mobile District knew the dredged sands were not moving out of the SIBUA toward Dauphin Island as intended. Instead, the District was aware a significant amount of the sands was in fact accumulating within the SIBUA and creating problems for hopper dredges to operate efficiently. That the Mobile District had full knowledge of the situation is proven by the fact the Corps issued a Public Notice on December 5, 2008

entitled "Expansion of the SIBUA" to the south. Now, less than 10 years later, the Corps is proposing to expand the SIBUA a second time, this time to the northwest (see August 2018 Draft EA on "SIBUA Expansion"). Both times, the primary reason for expanding the SIBUA was because the excessive sand accumulations were interfering with the operations of the hopper dredges. The Mobile District has provided no information on the water depths within the proposed SIBUA expansion or at what depth sand placement will occur. **Until the Corps can provide more substantive information that the new SIBUA expansion will allow up to 100% of the placed sands to return to the littoral drift system, the Corps should be considered to be violating the spirit and intent of the terms of the 2009 Second Addendum to the Lawsuit Settlement Agreement as noted above. One or more of the 1,700 Class members may have the right to challenge the Corps in Court for failing to comply with the terms of the that agreement.**

The Corps admission that dredged sands are accumulating in the SIBUA has fallen short of also connecting the sand accumulation issue with the erosion of Dauphin Island. What is needed is for the Corps to take the next logical step of admitting the accumulating sand is interrupting the natural littoral drift system which means the channel maintenance program is contributing to the erosion of Dauphin Island by reducing the amount of sand transported via the littoral drift to the island. **It appears to the informed public the Corps is refusing to make that admission for fear of exposing the federal government and the Alabama State Port Authority to the costs required to compensate for the shoreline erosion damages the Mobile Harbor project is creating to Sand/Pelican and Dauphin Islands from both historic and ongoing standpoints. By refusing to make that admission, the Corps continues to ignore the findings and conclusions of its 1978 report that clearly demonstrated without question or equivocation that maintenance of the Bar Channel is contributing to the erosion of Dauphin Island.**

The Corps should mitigate for the historic, present, and future contribution of the Bar Channel maintenance program to the erosion of Dauphin island. Corps dredging data show that since 1980, approximately 72% of the littoral drift sands crossing from the Fort Morgan peninsula have been diverted by channel maintenance and/or completely removed from the nearshore system. Attachment 1 is a table showing the quantity of sands dredged from the Bar Channel between 1980 and 2016. It is important to note that between 1980 and 1999, 100% of the sands were dumped in the ODMDS which permanently removed them from the littoral drift system. The volumes dumped in each dredging event during that 19-year period often represented the total amount of sand that would have naturally moved from Fort Morgan to Dauphin Island over the course of a single year if the sand had not been intercepted by the dredging action. **Also, of importance, the Mobile District now admits around 58% of the sand placed in the SIBUA accumulates in the site and does not return to the littoral drift system. That means over the course of the 36 years covered by this table alone, of the total of 29,442,209 cy of beach quality sands dredged from the Bar Channel, approximately 21,200,000 cy, or roughly 72% of the littoral drift sands, have been diverted or completely removed from the nearshore system.** If one were to also consider pre-1980 dredging data, the overall percentage of sands lost from the littoral drift system would be dramatically increased. Instead, the Mobile District attempts to convince the public otherwise by pointing to the results of inadequate numerical model studies that do not reflect what has been observed for years in the real world and which was also pointed out in the Mobile District's own 1978 report. The Mobile District should stop putting so much stock in their unreliable model studies and start doing the right thing by final mitigating for the impacts of maintaining the Bar Channel, impacts that will be intensified in the future under the TSP. The public refuses to continue to be duped by false engineering science that does not reflect real world observed conditions.

Shoreline Erosion

The Draft GRR/SEIS provides no documentation to substantiate the claim that shoreline erosion served as a planning constraint in the conduct of the GRR Study. Explain how shoreline erosion served as a planning constraint. Pages 1-7 and 1-8 identify shoreline erosion as a planning constraint. However, there is no documentation included in the plan formulation discussion that consideration of both the potential and actual observed shoreline erosion problems had any influence on the development of alternatives to counter shoreline erosion. The report also cryptically states that the shoreline was considered for 10 miles on either side of Mobile Pass. However, the Main Report never discusses the results of such an analysis that is required by statute and Corps engineering regulations. In addition, erosion of Mobile Bay's western shoreline is a serious continuing issue. Examination of time lapse Google Earth photos dating back to the mid-1980s for a length of the Western Shore shows that 300 feet of the shoreline has eroded in areas where small boat traffic is very uncommon. While there is no question storm generated waves have contributed to this erosion, many long-term landowners along the bay have repeatedly stated they have personally observed large waves created by passing ships. Instead of giving credence to the validity of landowner statements, the Corps has relied entirely upon in the results of the numerical Vessel Generated Wave Energy (VGWE) assessment modeling effort to analyze this concern. The results of that assessment indicate ship generated waves only range between 0.02 ft to 0.15 ft, with the highest values being closer to the Mobile Harbor Federal Navigation Channel, decreasing in height moving further from the channel. **Because of the public's concern over ship generated waves and the difficulty of the Corps' permitting process for an individual to receive a permit to protect his/her shoreline, at the very least, the Corps, Coast Guard, and Port Authority should evaluate imposing speed limits on the larger deep draft ships, particularly if fully loaded, to reduce the magnitude of bow waves from passing vessels.** Section 2.3.9.1 leaves the impression that vessel speed is determined entirely by the Mobile Harbor Bar Pilots with no oversight by the Coast Guard or other entity.

The Mobile District continues to ignore its 1978 report that concluded maintenance of the Outer Bar Channel contributed to the erosion of Dauphin Island, while refusing to state that report has never been retracted. Page 1-8 lists the 1978 Mobile District report entitled "Draft Feasibility Report for Beach Erosion Control and Hurricane Protection, Mobile County, Alabama (Including Dauphin Island)" as one of the reports on Mobile Harbor prepared in the last 40 years. **However, the very relevant conclusions of the 1978 report are never discussed in the Draft GRR/SEIS. The 1978 report clearly pointed out that maintenance of the Bar Channel contributes to the erosion of Dauphin Island. Through the years, the Mobile District has ignored the existence of the 1978 report and has not pursued effective measures to eliminate channel maintenance as a contributor to the erosion problem. The Mobile District has chosen to ignore its own 1978 report because its conclusions do not agree with the present Mobile District "no effect" position developed during the 2000-2009 lawsuit. The current Mobile District position is largely based upon two contractor reports prepared by the same author that are essentially the same (Byrnes et al., 2008 and 2010). The Mobile District's position on the erosion issue also conflicts with the worldwide literature that consistently shows interruption of the littoral drift of sand across coastal inlets by dredging causes the downdrift shorelines to typically erodes because of "sand starvation", unless the dredged sands are adequately bypassed to maintain the natural sand budget crossing the inlets.**

It was partially due to such universal impact conditions at Corps navigation projects that the Coastal Inlets Research Program (CIRP) was instituted to help Corps districts identify solutions for the erosion problems experienced by downdrift shorelines. If the Mobile District of today disagrees with its own 1978 report, the GRR/SEIS must explain why the earlier very relevant and directly applicable report is incorrect instead of continuing to ignore it. Just because modern numerical model studies can generate colorful graphics, does not mean the conclusions reached from them are any better than the historic hand calculations produced by some of the District's previous and very experienced engineers who were involved in designing many projects still in operation today. **The GRR/SEIS must also explain why Mobile Pass is so unique from other coastal inlets in the nation and around the world that its downdrift shorelines do not react in the same fashion from an erosion standpoint when the littoral drift of sand across Mobile Pass is either completely removed or partially disrupted by maintenance of the Bar Channel. The Mobile District is practicing the use of selective science instead of considering the results of the entire body of science.**

The Corps has provided no explanation for the significant observed erosion of the western ebb/tidal delta that has occurred since the early 1970s and which has resulted in the steady retreat toward the west and disappearance of Sand and Pelican Islands while at the same time significantly increasing water depths over the eb-tidal delta shoal between the Sand Island Lighthouse and the Sand/Pelican Island. The discussion of Dauphin Island on page 2-45 should be expanded to adequately describe the serious erosion problem that has been affecting the island's Gulf shoreline and Sand/Pelican Island since 1958 according to a 2007 US Geological Survey report. This would also be the proper location in the report to include references to other papers in the scientific literature that assert maintenance of the Bar Channel contributes to the erosion problem, including the Mobile District's own 1978 report, the accuracy of which has never been disputed by the Mobile District. Lastly, the discussion should summarize the outcome of the 10-year lawsuit settled in 2009, with the US government and State of Alabama paying the Dauphin Island Property Owners Association $1.5 million and the Corps agreeing to place future maintenance dredged sands in the SIBUA. In return, the 1,700 members of the Class had to give up their right to ever sue the government again over the erosion issue. Despite the settlement, the erosion issue remains a serious point of contention between the concerned public and the Mobile District because the SIBUA has proven after almost 20 years of use to be ineffective in countering Dauphin Island's erosion. In fact, use of the SIBUA now appears to have also contributed to the island's erosion since 58% of the sands placed in the site have accumulated therein. **This is important and pertinent background information and should be thoroughly presented and objectively discussed in the report. For this information not to be included leaves the strong impression the Mobile District is attempting to hide these significant facts about the long-term erosion controversy from the ultimate Corps decision-makers.**

The discussion on page 2-51 of Sediment Transport at the Coastal/Ebb Tidal Delta gives the impression the views and opinions expressed in the Draft GRR/SEIS represent settled science. Such is not the case and the report should both acknowledge and give equal attention to dissenting views. The only information and literature references provided are those that are friendly to the Mobile District position that maintenance of the Bar Channel does not contribute to the erosion of Dauphin Island. To be completely honest, the Corps should give equal treatment to the numerous other sources that disagree with the Corps position. For example, regarding the Byrnes et al 2008 and 2010 reports, to be accurate and honest with the public, the GRR/SEIS should point out that Dr. Robert G. Dean, the imminently qualified and highly

regarded coastal engineer from the University of Florida who served on the independent team that reviewed the 2008 report, stated the following:

> "I regard the findings inconclusive with regard to any impact of dredging and channel maintenance of Mobile Bay Entrance. 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.'"

Attachment 3 contains comments on the Byrnes et al 2010 report that were submitted to the Mobile District more than once during the GRR planning process. Since the Mobile District did not provide respond to those comments, they are being resubmitted again as a component of my comments on the Draft GRR/SEIS.

Dredged Material Disposal Sites

The text accompanying Tables 2-20, 2-21, and 2-22 for the bay thin layer, SIBUA, and ODMDS disposal areas, respectively, should clearly explain how the "capacities" were determined for these three types of disposal areas that all involve open water areas, with each representing distinctly different environments in regard to depth and wave energy. The text should identify the risk and uncertainty associated with the projected capacity volumes. Such information is essential, given the critical need to assure adequate disposal capacity remains available over the 50-year economic life of the TSP as well as the entire Mobile Harbor project.

In Section 2.4.4.4, explain the decision criteria that will be used to determine when fine grained sediments dredged from the Bay Channel will be placed in the ODMDS instead of the thin layer disposal sites in the bay.

Why has the Mobile District and the EPA found it necessary to pursue such a massive expansion of the ODMDS? Examination of Table 4-3 and Figure 4-7 reveals the proposed expansion of the ODMDS will be around 500% larger than the existing ODMDS that has been designated for years. The text indicates the EPA has the lead in designating and managing the enlarged ODMDS boundaries. Explain the role the Corps plays in that process and identify which agency recommended the large increase in the size that is being pursued. **Also, the text should explain why it is necessary to expand the ODMDS by 500% since the Corps plans to use the existing designated open water thin layer disposal sites for the Bay Channel as much as possible. Also, provide estimate as to when approval of the enlarged ODMDS could occur. Lastly, is the Draft GRR/SEIS intended to serve as the NEPA document for that expansion, or is a separate NEPA document being prepared, and if so, by whom?**

Project Economics

A portion of the annual excess benefits should be directed for use in implementing either (1) real beneficial use projects with dredged material from the Mobile Harbor project; (2) adequately documented environmental restoration projects; or (3) actual mitigation for the significant historic adverse impacts of maintaining the ship channel (i.e., countering the erosion of Sand/Pelican and Dauphin Islands). The Draft GRR states the TSP has a BCR of 3.0, with annual Excess Benefits over cost of $34.5 million. A portion of the Excess Benefits should be directed to beneficially use dredged material to correct the disruption of littoral drift

sands because of maintenance of the Bar Channel and to restore Sand/Pelican and Dauphin Islands. These features of Alabama's western coastline are key environmental resources that have been historically and significantly adversely impacted by maintenance of the Bar Channel. Other well-supported beneficial uses of dredged material and factual environmental restoration projects should also be pursued to improve Mobile Bay's oyster resources and to prepare other important environmental resources to withstand future near- and long-term SLR.

The Draft GRR/SEIS Economic Analysis does not show the full true cost of the Mobile Harbor project to the Nation. Since the proposed deepening of Mobile Harbor is based upon justification of National Economic Development (NED) benefits, the Corps and Congress should be interested in assuring that Mobile Harbor is an appropriate navigation project in which to invest the $387,000,000 construction cost and the concomitant annual O&M expenditures over the 50-year economic life of the project. This should be an important consideration given the fact our nation is faced with a staggering deficit, with many competing requests for portions of an ever-diminishing annual discretionary budget. For such a consideration, any discussion of Mobile Harbor's economics should begin with the findings of two very relevant Congressional Research Survey reports authored by John Frittelli: "Harbor Maintenance Trust Fund Expenditures" (January 10, 2011), and "Harbor Maintenance Finance and Funding" (September 12, 2013). These two reports were prepared to help Congress arrive at decisions on which of the nation's port projects represent the best value in the competition for funds to deepen their associated channels to attract the larger ships transiting the new Panama Canal.

The 2011 report demonstrated that by requiring a total of $237,965,413 over the 10-year period FY 1999-FY2008, Mobile Harbor was the second most expensive deep draft navigation project in the nation to maintain. The high costs are primarily due to its 41.1-mile length and the shallow nature of Mobile Bay through which 28.7 miles of the channel pass. The report also pointed out that for that same 10-year period, Mobile Harbor was not included among the nation's top 25 projects for "Value of Imported Cargo". The import fees received from such cargo serve as the source of monies for the Congressionally established Harbor Maintenance Trust Fund (HMTF). The HMTF is used to maintain the nation's deep draft navigation channels through annual distributions made by Congress from the HMTF.

The 2013 report compared the $8,720,000 of import taxes collected at Mobile Harbor in FY2011 against the Corps' $23,560,000 budget request to maintain the project for that year. The O&M expenditures for Mobile Harbor exceeded the import taxes collected in FY 2011 by $14,840,000. Thus, 62% of the total federal cost to maintain the Mobile Harbor ship channel in FY 2011was subsidized by the import taxes received at other more profitable ports in the nation.

Although more recent analyses have not been conducted of the Mobile Harbor project, it is believed the information presented in the 2011 and 2013 reports still generally represent conditions of today. **That means that in terms of HTMF expenditures, the cost for the federal government to operate and maintain Mobile Harbor may not represent the most prudent expenditure of HMTF monies from a national standpoint. This type of economic information should be considered by high level decision-makers, especially since the Mobile Bay, Dauphin Island, and adjacent coastal environments have had to bear the brunt of unmitigated environmental damages related to channel maintenance over years. The Mobile District and the Alabama State Port Authority have elected to ignore the significance of those adverse impacts over the years, and not share this type of cost information about Mobile Harbor with the media, the public, or others.**

Thin layer Disposal of Maintenance Dredged Material in Mobile Bay

Additional work is needed to adequately explain the level of effort that was directed at pursuing true beneficial uses of dredged material. The information presented in the Draft GGR/EIS related to beneficial use considerations is sketchy, with most planning efforts being delayed until Pre-Construction Engineering and Design (PED). On page 1-7, the statement is made that opportunities were devoted to "…beneficially use dredged material for the protection, restoration, and creation of environmental resources". Such a statement represents only so much platitudes for the many statutes and Corps policies that deal with beneficial use of dredged material. The preceding sentence is included because no real evidence provided in the Draft GRR/SEIS plan formulation discussion to show that beneficial use of dredged material was ever given any serious consideration. The use of thin layer disposal for the Bay Channel is primarily being driven by economic considerations to reduce O&M costs since the Mobile District has never provided any scientific proof to demonstrate how the bay's environment benefits from thin layer disposal of 4,500,000 cy (including the TSP volume) that occurs on an annual basis.

Further, despite numerous repeated requests by the public to discontinue use of the SIBUA in favor of a location that would place the dredged sands in shallow waters much less than 15 feet deep, the Cops has responded only by expanding the existing SIBUA to the northwest. In fact, the SIBUA expansion is only be proposed because the sand accumulations within the existing SIBUA boundaries have become problematic for hopper dredges to effectively operate. Thus far, the Corps has provided no assurances that a substantially increased percentage of the sands to be placed in the proposed SIBUA expansion will be reincorporated into the littoral drift system to nourish the eroding shorelines of Sand/Pelican and Dauphin Islands.

The Mobile District did not provide any scientific information in the prior 2014 EA to support its contention that retaining dredged material within Mobile Bay benefits the bay's environment. The Draft GRR/SEIS continued that information deficiency by simply referencing the prior 2014 EA on this issue. The Draft GRR/SEIS again only makes a very general statement that thin layer disposal will benefit Mobile Bay without describing in detail what those benefits would be or producing evidence from scientific studies to support that contention. Section 302 of the WRDA amended the Mobile Harbor project authority with the following language:

> "In disposing of dredged material from such [Mobile Harbor] project, the Secretary, after compliance with applicable laws and after opportunity for public review and comment, **may** [emphasis added] 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."

The operative word in the Section 302 discretionary authority is "may" – not "shall" or "will". Unfortunately, the Mobile District is pursuing an interpretation of Section 302 that indicates the Corps has essentially been given the permission to abandon disposal of dredged material in the ODMDS, in favor of various options within Mobile Bay without having to adequately and substantially justify the alleged beneficial uses and/or environmental restoration that would result from a return to dredged material disposal within the bay. In the absence of supporting environmental data to support the basis for

the return to in-bay disposal, it appears the change is actually been undertaken to reduce project maintenance costs.

Examples of the absence of information to substantiate the alleged benefits of disposing fine-grain dredged sediment in the open waters of Mobile Bay can be found by hard searching in the July 2014 "Modification to Mobile Harbor Operations and Maintenance Addition of a Long-Term Open Bay Thin-Layer Disposal Option". The purpose of the 2014 EA was "…to add open bay disposal as a permanent option associated with maintenance of the Mobile Bay navigation channel". The only justification given in the EA, to return to thin layer disposal of dredged material in Mobile Bay are the following two unsubstantiated statements:

> Page EA-3: "…It is now perceived that the removal of sediment from the Bay's natural sediment system may not be an environmentally sound method of disposing of the dredged sediment and may have long term negative effects. Reestablishing the option for open bay disposal may contribute to the much-needed conservation efforts for the protection of marshes, sea grasses, oyster reefs, and other ecological resources. By reducing the amount of sediment placed in the ODMDS, more of the bay sediment will be retained in the natural sediment transport system."
>
> Page EA-4: "…Since that time concerns have been raised whether removing this dredged material from the Bay's sediment transport system is environmentally sound."

The above two quotes represent the sum total of the environmental reasons for returning to open water disposal of 4,000,000 cy/per year of dredged material in Mobile Bay. These two quotes provide no references to studies or the scientific literature to identify or describe what the alleged environmental benefits to Mobile Bay would be and are. Further, the Mobile District has never made any attempt to explain to the concerned public in any public setting what the alleged benefits are to Mobile Bay from open water disposal. The present Draft GRR-SEIS continues the Mobile District's pattern of not providing the requisite information to support its claims of environmental benefits that are only vaguely alluded to in NEPA documents without the public being assured of the scientific validity of such vague and illusionary claims. The Draft GGR/SEIS bases its recommendation to place the future TSP's 500,000 cy/year of maintenance material, in the same thin layer sites over the next 50 years that are already receiving 4,000,000 cy/year from the maintenance of the entire Bay Channel**. In reality, thin layer disposal, which is already affecting thousands of acres of Mobile Bay bottoms each year, is primarily being driven by the desire to reduce the cost of transporting the dredged material to the ODMDS which would increase by an additional 10 to 15% after the channel is deepened**.

Detailed information from the studies and literature upon which the Mobile District based the decision that thin layer disposal is beneficial for Mobile Bay must be added to the GRR/DEIS. Otherwise, use of the thin layer sites to receive future TSP maintenance material, as well as material dredged from maintaining existing channel depths cannot be supported from an environmental benefits standpoint. And, merely quoting the Byrnes and Griffee (2012) report entitled "Sediment Dynamics in Mobile Bay, Alabama: Development of an Operational Sediment Budget" is not sufficient because that report did not address potential environmental benefits of disposing dredged material in Mobile Bay.

Environmental Setting

Figure 2-30 is incomplete since it does not show all wetlands occurring within the entire Study Area. The Study Area depicted on the posters used at the March 16 and September 14, 2017

public meetings showed the Study Area included both Dauphin Island and Mississippi Sound. In particular, the wetlands occurring on the eastern end of Dauphin Island and Little Dauphin Island should be included on Figure 2-30.

Table 2-28 needs some work. It includes Stone Crab as a managed commercial species "likely to occur in Mobile Bay". While it is true that an occasional Stone Crab is caught by commercial and recreational crabbers, the numbers of this species are so small due to the lack of suitable preferred habitat that it does not represent a significant component of the local fishery. Further, why is Stone Crab included under the column entitled "Coastal Migratory Pelagic FMP"? Lastly, why does red drum have two entries and why are they included in the column entitled "Shrimp FMP"?

The introductory sentence of Section 2.5.6.8 on page 2-84 should be revised. It should read: "Mobile Bay **Drainage Basin** ranks first in the number of freshwater species in the Southeastern Atlantic and Gulf of Mexico drainages,…"

Oysters. Because oysters have a sedentary life style, narrow salinity tolerance range, and sensitivity to turbidity, the species serves as a major "indicator" of the overall health of Mobile Bay. The discussion on salinity issues and dispersal of oyster larvae and spat on page 2-86 should be expanded to explain that oysters are also sensitive to excessive turbidity and suspended solid concentrations, the deposition of which can smother and kill individual animals and entire reefs.

The discussion on page 2-100 dealing with oyster harvests is inadequate. It should emphasize that oyster production in the State of Alabama has historically centered around the natural oyster reefs shown in Figure 2-35. Another major point that must be made is that historical NOAA data from 1950 through 2016 [see Attachment 2] show total annual oyster harvests in Alabama waters have experienced a significant continuing decline during the last decade. Today, many of Alabama's natural reefs are either closed or very closely managed to prevent their further deterioration and to provide for the resource's recovery. An important indicator of the poor condition of Alabama's present-day oyster resources is the fact that almost all oysters shucked in Alabama's processing houses now come from Mississippi, Louisiana, or Texas waters. The only oyster activity that seems to be doing reasonably well Alabama is the off-bottom culture of oysters grown in suspended cages that was begun a few years ago. To provide a true representation of the existing quality of oyster resources within the Study Area, the GRR should clarify that the recent four years (2013, 2014, 2015, and 2016) selected to develop the GRR's Baseline represents a significant low point in both oyster production and reef condition for the past 66 years of record as indicated in Attachment 2.

The individual and collective effects of four separate events may have combined to adversely affect Alabama's natural oyster reefs: (1) Hurricane Katrina Cut in Dauphin Island remained open until 2011; (2) the Deep Water Horizon Oil Spill occurred in 2010; (3) the Corps resumed open water disposal of dredged material in the bay in 2014; and (4) increased predation by oyster drills that favor higher salinity waters. While the exact cause of the oyster harvest decline in Alabama remains unanswered, there are concerns over the near collapse of the State's oyster fishery because of potential for a "cascade" of adverse effects on other aquatic species that depend upon the habitat provided by living reefs. In addition, the loss of oysters and their ability to filter out suspended solids from bay waters may also have implications on other species requiring more clear waters.

Remove Maui remya from Table 2-31. According to US Fish and Wildlife Service data, Remya mauiensis is a rare species of flowering plant in the aster family known by the common name Maui remya. It is endemic to Hawaii, where it is known only from the island of Maui. If this Hawaiian species is to be retained in the GRR/SEIS, the basis for its retention should be adequately explained.

Bay scallops do not occur in Mobile Bay. Bay scallops do not occur in Mobile Bay, so that species should be eliminated from the Section 2.5.6.9.

Invasive species discussion needs revision. Section 2.5.11 identifies the cattle egret as an invasive species. While that fact is technically correct, this species has no relevance to the Mobile Harbor project or the estuarine ecosystem of Mobile Bay. An invasive species not mentioned, among many, which is having a real impact on wetland marsh communities contiguous with Mobile Bay is the Chinese tallow tree (*Triadica sebifera*), and as a result, is more worth mentioning. Also mentioned in the text of invasive species that now occur in Alabama is the Australian spotted jellyfish. Since this marine species occurs in the Gulf, the discussion should be expanded to identify its relevance and concern, if any to Mobile Bay and the Mobile Harbor project. Lastly, the relevance of the freshwater bighead carp to the Mobile Harbor project should also be explained. In short, for any species highlighted in the text should also include information explaining the relevance for doing so in connection with the Mobile Harbor project.

Discussion of impacts of non-dredging activities on SAV communities need to be revised. On page 2-73, it should be clarified that damage to SAV from boat propellers is essentially restricted to the extensive "grassbeds" occurring in the expansive shallow water areas in the lower Delta above and below the Causeway and are caused by recreational fishing boats. Also, the potential damage to SAV created by very localized, small scale, and short-term turbidity caused by commercial and recreational shrimp trawling is grossly OVERSTATED for two reasons: (1) shrimp trawling avoids areas of SAV because the vegetation fouls a net; and (2) all turbidity generated by shrimp trawling during the course of a year pales in comparison to that created by large scale continuous dredging and disposal of sediments using the thin layer sites which is the disposal method of choice by the Corps in the bay. The allegation that elevated turbidities created by shrimp trawling is harmful to SAV is ludicrous given the fact the Draft GRR/SEIS contends dredging and disposal operations that thoroughly disturb bottom sediments do not adversely affect turbidity levels. Because of the absurd nature of the blame ascribed to shrimp trawling as being harmful to SAV, all such sentences should be removed from the report.

Air Quality and Hazardous and Toxic Materials discussion needs expanding. Section 2.5.12 should be expanded to explain that downtown and midtown residents have filed a lawsuit against the Alabama State Port Authority over the deposition of fugitive coal dust originating from the McDuffie Coal Terminal. The suit deals with harm to both property and human health over concerns for the airborne coal particulate matter that is being carried a considerable distance by winds before settling in residential neighborhoods west of the terminal. Sampling has demonstrated the coal dust is being carried from the storage piles despite required measures at the terminal that are supposed to prevent the escape of coal dust. Given the fact that increased future shipments of coal, as both exports and imports, are projected to occur in the benefit calculations to justify the TSP, the existence of the present lawsuit is very relevant to the SEIS evaluations and the fact that coal dust is in fact being carried offsite from the Port by winds must be discussed in the GRR/SEIS.

Complaints and concerns over the existing occurrence of various petroleum and chemical fumes in the Africatown community and other residential neighborhoods bordering the Port of Mobile, tank farms, and railroads exiting the port facilities have been raised for some time by local residents. These concerns were recently expressed at various City of Mobile land use planning and zoning meetings that have dealt with the possible expansion of the existing tank farms. One topic of concern has been the unusually high incidence of cancer experienced by many longtime residents of Africatown that have suffered from long-term exposure to these various odors. The project economics analyses forecast petroleum and chemical commodity shipments will continue to increase over the next 50 years. Given the existing concerns expressed by local residents over existing escaping vapors from port related facilities, Sections 2.5.12 and 2.5.13 should be expanded to disclose this well-publicized local air quality issue.

Section 2.5.15 is not correct, CBRA zones do in fact occur within the project area.
Examination of the August 14, 2015 Draft Map 01-007A of the John H. Chafee Coastal Barrier Resources System clearly shows that designated CBRA zones occur within the Mobile Harbor project area. The March 16, 2016 *Federal Register* also contains a notice entitled "John H. Chafee Coastal Barrier Resources System, Availability of Final Revised Maps for Alabama, Florida, Georgia, Louisiana, Michigan, Minnesota, Mississippi, New York, Ohio, and Wisconsin". That notice revised the final boundaries of CBRA zones: Q01A - Pelican Island Unit; Q02 - Dauphin Island Unit; and Q02P - Dauphin Island Unit. The same notice also addressed two CBRA zones on the Fort Morgan Peninsula. The continued existence of the Q01A - Pelican Island Unit is continuing to be harmed by the ongoing use of the SIBUA which has contributed to the historic erosion of the island by disrupting the westward flow of littoral drift sands from the Fort Morgan peninsula. In addition, long-term maintenance of the Mobile Harbor Bar Channel, dating back to the mid-1950s has also contributed to the long-term erosion of over 200 feet of historic width from the Gulf Shoreline of Q02 - Dauphin Island Unit according to the 1978 Corps report. If the Corps does not make positive changes to the Bar Channel maintenance program, it is likely each required future 5-year review of these two CBRA zones will continue to experience further shoreline erosion. This section needs to be revised to reflect this past, present, and reasonably foreseeable future conditions for these two relevant CBRA zones.

Bon Secour NWR discussion needs revision. The discussion about the Bon Secour NWR on page 2-108 should be expanded to point out the refuge includes an 850-acre unit on Little Dauphin Island.

Revision needed for Environmental Justice discussion. The Environmental Justice discussion on page on page 2-114 does not state whether the low-income community in extreme South Mobile County that depends upon commercial fishing for a living is considered in the EJ analyses. Many commercial fishermen and their families in these poor fishing communities live at the poverty level, with their catches and income having been diminished in recent years for a variety of years. Mobile Bay is one of Alabama's coastal areas in which they work in an attempt to make their living. Representatives from these fishing communities are very concerned about the potential impacts that may result from the Corps' plans to dispose larger volumes of dredged material within Mobile Bay in the future with implementation of the TSP.

Sec. 4 - Tentatively Selected Plan

An additional table is needed in Section 4 to show the projected future annual maintenance dredging requirements of the TSP. Such a table should be a companion to the existing Table 4-1 showing the new work dredging requirements for each of the major segments of the TSP. To locate projected maintenance dredging volumes for each of the TSP segments the reader must expend considerable effort searching this very large report before locating that information in Table 4-8 in the Engineering Appendix (Appendix A). The Main Text should include a table similar to Table 4-8 in Appendix A.

The discussion on page 4-6 stating filling of the relic shell mining areas with new work dredged material will "…restore sediment to the system and improve bay bottom conditions…" should be expanded to provide the data and studies that support this action as a beneficial use. As presently written, the reader is required to simply trust the quoted statement is accurate since no substantiating information is provided to support the alleged benefit. Explain in detail what the nature of the alleged benefit is.

The primary reason given for filling these areas is that they experience periods of hypoxia. However, during periods of extreme winter cold, when portions of the bay have been known to freeze and cause winter fish kills, it is likely these same deep areas on the eastern side of the bay also provide thermal refugia that benefit fish attempting to flee the lethal colder shallow waters. However, the document does not address the loss of potential thermal refugia benefit that would be foregone if the areas are filled with dredged sediments.

On page 4-8, clarify if the prevailing depths within the relic shell mining areas to be filled are measured from the water surface or from the ambient bottom surrounding the areas.

On page 4-8, what potential beneficial use considerations were devoted to the 1.8 million cy of new work material to be dredged from the Choctaw Pass Turning Basin? It would represent an irresponsible waste of a potentially beneficial natural resource to transport those sands for disposal in the ODMDS where they would be permanently lost from Coastal Alabama.

Lastly, returning to the above quote, since the relic shell mining areas would be filled with existing sediments already occurring within Mobile Bay, how would this disposal action **restore** sediment to the system? "Restore" is not the correct verb since the new work sediments to be dredged already are present within the bay.

Identify how dredged material disposal site capacity needs for both the channel deepening increment and the entire Mobile Harbor project will be satisfied after 20 years. Tables 4-3 and 4-5 state the disposal capacity remaining after 20 years would be 52,000,000 cy for the ODMDS and 59,594,000 cy for the thin layer open water sites within Mobile Bay. The text accompanying these sites should clearly and thoroughly explain how the disposal capacities of these two very different types of open water sites was determined.

The cost side of the BCR reflects the projected future annual dredging costs to maintain the 5-foot additional depth increment of the channel provided by the TSP over the 50-year period of analysis. Disposal capacity planning for the entire Mobile Harbor project should also consider this same 50-year period of analysis to assure the projected outyear maintenance costs are both reasonable and supportable.

This is particularly true for the Bay Channel which has the largest maintenance dredging requirements. Assuming the average annual dredging volume for the Bay Channel (including the

TSP increment) consistently remains at 4,500,000 cy/year as stated in Table 4-5, that means during the final remaining 30 years of the 50-year economic life of the project, a total of 135,000,000 cy would be dredged from the Bay Channel. However, Table 4-5 states that the remaining capacity of the open water thin layer sites after the first 20 years of use would only be 59,594,000 cy. **The simple math indicates after year 20, the Bay Channel segment will begin to suffer from a disposal capacity deficit of 75,406,000 cy that will become more difficult to overcome and will likely increase the cost of the maintenance program in the outyears. The Draft GRR/SEIS is silent on that critical issue.**

The disposal capacity deficit would begin to be manifested at some time after year 20 and would likely increase in severity during the final 30 years of "project life" for Mobile Harbor. The outyear disposal capacity deficit for the Bay Channel is significant, being of sufficient magnitude and importance that the GRR/SEIS **MUST** devote considerable discussion to clearly explain to the decision-makers how the Corps and the Alabama State Port Authority plan to satisfy the project's disposal needs throughout the future. **As the TSP is presently described, the GRR/SEIS ignores completely the disposal capacity needs after year 20. Given the projected disposal capacity deficit for the longest segment of Mobile Harbor (i.e. 28.7 miles or 70% of the project's total length) and having the corresponding largest dredging requirement, it is likely the actual outyear channel maintenance costs could eventually have a major influence in lowering the projected BCR to something less than the presently projected 3.0.**

The present discussion does not identify the proposed future disposal site locations after the first 20 years of the project's 50-year economic life. That approach appears to have been driven solely by Corps planning regulations (i.e., ER1105-2-100, Appendix E, pages E-68 to E-83, Dated 22 April 2000) for "existing" projects. That regulation states "…all Federally maintained navigation projects must demonstrate that there is sufficient dredged material disposal capacity for a **minimum** [emphasis added] of 20 years." The operative word is **"minimum"** – there is nothing in this regulation dealing with the development of Dredged Material Management Plans (DMMP) requiring the planning horizon to accommodate a navigation project's future disposal capacity needs be limited to 20 years. Thus, it is entirely permissible for the GRR/SEIS to describe where and how the dredged material disposal capacity would be satisfied over the entire 50-year period of analysis. Further, given the fact that the Draft GRR/SEIS is recommending a major addition to an existing project, it would appear a higher standard should be applied by assuring adequate disposal capacity was available over the entire 50-year period considered to justify the economic feasibility of the project. **In view of the GRR/SEIS' failure to identify where the dredged material from the TSP increment will be placed over the entire 50-year period of the increment's economic life causes one to question how valid the cost side is of the presently calculated BCR of 3.0 and the projected annual Excess Benefits over cost of $34.5 million.**

Instead, the Mobile District and the Alabama State Port Authority have elected not to do so in the GRR/DESI because it would require considerably more study, effort, and commitments by a variety of entities to specify how the total future disposal capacity needs for TSP and the entire Mobile Harbor project will be satisfied given the uncertainty of the future. Yet, the Corps and the Port Authority are asking the agencies and the concerned public to accept this massive navigation project, that would: (1) dredge 24,082,585 cy during construction; and (2) add 529,900 cy annually to the present 4,859,000 cy dredged each year to maintain the combined River, Channel, and Bar Channels.

Over the next 50 years, the Mobile Harbor project will continue to exist in Alabama's largest coastal bay, which is also one of the nation's 28 bodies of coastal water included in the National Estuary Program because of its uniqueness, ecological productivity, and regional importance. Given the biological and recreational importance of Mobile Bay, this resource deserves much better attention to the details of where and how 5,388,900 cy (per Table 4-8 in Appendix A) future dredged material will be disposed of, both in the bay and at other surrounding locations, after year 20 – a need that is now ignored in the Draft GRR/SEIS.

Section 4.2.2.3 should provide supporting information to substantiate the contention that "…sand has been transported out of the SIBUA at a rate of approximately 260,000 cubic yards per year. This material has primarily continued to move northwest to join in with the shallow platform associated with Sand and Pelican Islands". The supporting information should adequately demonstrate the sand moving out of the SIBUA does in fact "…join with the shallow platform associated with Sand and Pelican Islands". **Since the Corps has never monitored the eventual disposition of the sands leaving the SIBUA, upon what tangible information does the Corps base the above quoted statements?** Simply relying upon the results of numerical model studies is not sufficient since those models have already been shown not replicate observed conditions in the real world. Direct onsite observation by the public demonstrates beyond any doubt that Sand and Pelican Islands are eroding and have been on a consistent basis even before the SIBUA first began to be used in 1999. **The only thing the Corps can say with absolute certainty based upon its recurring bathymetric surveys, is that a substantial amount of the sands placed in the SIBUA are accumulating on an average annual basis.**

Given the inaccuracy over the last 20 years of the Corps promises that the SIBUA would counter the erosion of Dauphin and Sand/Pelican Islands, the validity of all of sand budget projections contained in Table 4-6 is questionable. Due to the critical importance of the erosion issue and the role maintenance of the Bar Channel contributes to the erosion of Dauphin Island (as per the 1978 Mobile District report) the public has extreme difficulty believing anything the draft GRR/SEIS has to say on this issue. A detailed risk and uncertainty analysis of the Corps projections about the effectiveness of the proposed SIBUA expansion should be conducted by an independent third party to assess the accuracy of Table 4-6 and the related text throughout the entire report.

Further. a major problem with the text on page 4-14 and with Figure 4-8 is that no information is provided to show the existing depths occurring within the proposed SIBUA expansion. Also, the text does not explain where and in what depths dredged material will be disposed in the future. Merely providing Table 4-6 to show the estimated volume capacity within the proposed SIBUA expansion below specific depth increments is not sufficient by itself. **The public wants to see an actual bathymetric map of the proposed site, illustrating the water depths in which the dredged sands will be placed. In addition, the title of the table needs to be revised to clearly state the data presented therein is limited to the expansion area and not to the entire SIBUA site.**

Should the planned sand placement depths in the expansion area exceed 20 feet, it is questionable if the sand accumulation problem that has characterized much of the SIBUA since 1999 will be rectified, but instead only be relocated to an additional area. Should the Corps disagree with this observation, a response should explain in detail why this statement is incorrect.

Why did the Draft GRR/SEIS not devote greater effort to identifying implementable beneficial use options for inclusion in the TSP? Section 4.2.3.2.1 only contains one paragraph dealing with beneficial use as an option to provide the much-needed disposal capacity to maintain the Mobile Harbor project, to include the TSP increment. That single paragraph actually only states that a detailed analysis of beneficial uses will be "…conducted during the PED phase or within a separate study in coordination with the cooperating agencies and the interested public". That approach essentially represents kicking resolution of the disposal capacity deficit "can" down the road. When completed, the Final GRR/SEIS will have spent $7,800,000 without identifying adequate disposal capacity to accommodate the incremental annual volume of maintenance material to will be dredged to provide the additional 5 feet of channel depth, or to consider where and how that incremental volume will be disposed in combination with other maintenance material for the entire project.

The statement that a separate study will be performed "…in coordination with the cooperating agencies and the interested public" is interesting. Since the Corps formed the Interagency Working Group in 2011 to consider beneficial uses of dredged material within Mobile Bay, the Corps has never devoted any effort to involving the interested public in those study activities. Further, during the course of work on the Draft GRR/SEIS, the public was left with the consistent impression that the Mobile District only held three public meetings so the "public involvement box" could be checked in the planning process. The public was never made to feel that their views were genuinely being sought or that their suggestions would in fact be considered. **What assurances will the Mobile District provide a future study would be conducted differently?**

The text accompanying Figure 4-9 should be expanded to provide information about each of the beneficial use sites illustrated in the figure but not discussed. An explanation is needed as to why each of the sites not included in the TSP were excluded, especially given the fact that the Bay Channel is expected to experience a future disposal capacity deficit at some time after the next 20 years based upon information contained in Table 4-5.

Appropriate text and a table should be provided identifying the constraints that must be overcome to allow each of the sites shown in Figure 4-9 to be used. A case in point is to beneficially place the dredged beach quality sands directly onto Sand/Pelican Island platform at depths considerably less than 15 feet to counter shoreline erosion and loss of these islands. The existing Mobile Harbor authority quoted in Section 1.1 is already sufficient to allow that disposal alternative to be implemented**. Beginning with the Scoping Meeting, the public repeatedly requested the Corps to include an evaluation of that specific disposal option in the GRR Study. However, that request was always met with a polite refusal by the Mobile District staff, without providing an explanation as to why that disposal option would not be analyzed. Please explain why the Mobile District has consistently ignored the concerned public's request to conduct such an evaluation for the Draft GRR/SEIS, and why the Corps is opposed to providing the public with the cost information associated with that disposal option?**

Additional text should be added to provide a rational explanation as to why Figure 4-9 does not include the planned 1,200-acre dredged material disposal island in the Upper Bay south of the Causeway. The Corps and Alabama State Port Authority maintain the Mobile Bay Interagency Working Group supports construction of that island as a beneficial use of dredged material to contain future sediments dredged from the Mobile Harbor channel. The island

project was approved on December 9, 2015 by the federal Gulf Coast Ecosystem Restoration Council for Phase 1 planning at a cost of $2.5 million and a duration of about two years. Initiation of the study has been delayed, allegedly over funds transfer and accounting issues. However, since 2-3/4 years have passed since the Council approved the project proposal, it is strange the funds transfer issue remains unresolved. **The Corps and the Alabama State Port Authority were pursuing this proposed project with great deliberation until segments of the public began asking questions about the proposal and whether the planned island would truly represent a beneficial use of dredged material. During the conduct of the GRR Study, the Mobile District and the Port Authority have gone completely silent on the Upper Bay island disposal option. By doing so, their motivation appears to be based on avoiding having to include having to evaluate the in the GRR/SEIS the island proposal as an option to accommodate a portion of the TSP's disposal capacity needs. Based upon the past pattern of "segmenting" the Mobile Harbor project components since 2009; once the GRR/SEIS is finalized, the Corps and the Port Authority will likely resume internal actions to pursue construction of the island. By failing to include the proposed 1,200-acre island on Figure 4-9, it appears the Corps is attempting to surreptitiously prevent the public from being made more aware of the proposal to construct the island.**

What is the influence of channel deepening on the total cost of maintaining the overall Mobile Harbor project? **Section 4.3.1 should be expanded to place into perspective how the annual TSP incremental cost to maintain the proposed deepening of Mobile Harbor influences the project's total annual Operations and Maintenance (O&M) Budget.** The total annual maintenance cost of the complete Mobile Harbor is obtained by adding the incremental annual cost of $2,358,000 to provide the 5 feet of additional channel depth with the existing federal annual cost to maintain the rest of project's features. The FY 2017 Congressional appropriations to maintain Mobile Harbor was $22,389,000. Thus, if these two cost components remained constant into the future, which they will not, the total annual cost to maintain deepened Mobile Harbor project would be increased to $24,747,000.

In Section 4.3.6, the risk and uncertainty analysis discussion is superficial and completely inadequate. It is inadequate because it does not address the following crucial issues: (1) the ability to satisfy future disposal site capacity requirements for the Bay Channel over the 50-year economic life of the project; (2) the validity of the projected annualized maintenance cost; and (3) the various environmental impact assumptions. The sketchiness of the discussion and absence of information on these three important variables makes it impossible to offer any further comments on this section. In short, the brevity of the discussion is not helpful in arriving at a project implementation decision.

Clarification is needed to better explain potential beneficial uses of dredged material. On 4-19, explain how dredged material from the Mobile Bay Channel, given its structural qualities, could be used to restore oysters and to construct living shorelines. Also, give an example of how dredged material can raise "…bottom elevation in strategic locations to promote productivity…" or for the "…strategic placement of berms for shoreline protection".

Sec. 5.0 – Environmental Effects

The Draft SEIS is deficient because the evaluation of every environmental resource within Mobile Bay that would be affected by the deposition of dredged material from the Bay Channel is incomplete to varying degrees. That is because, as pointed out in the above

comments on Section 4, consideration of the various tabular data contained therein in concert with the accompanying text shows that after year 20, the Bay Channel segment will begin to suffer from a significant disposal capacity deficit of 75,406,000 cy that will probably become more difficult to overcome and will likely increase maintenance costs during the later outyears. In short, the Mobile District has no idea of where or how it will place maintenance dredged sediments from the Bay Channel during the final 30 years of the economic life of the TSP increment combined with that of the entire project. Since the TSP description does not specify the location of all future disposal areas that will be used to maintain the Bay Channel over the entire 50-year period addressed in the GRR/SEIS, the SEIS component of the integrated report is necessarily deficient because it fails to disclose all foreseeable future impacts that could result from not only the proposed TSP incremental deepening of the channel, but also maintenance of the total navigation project. **Before the GRR/SEIS can be finalized, additional work is required to identify all future disposal sites and their capacities that will likely be used over the next 50 years following the 2018 Baseline Year. All available information indicated the potential adverse impacts to Mobile Bay from future dredged material disposal practices are too significant for the GRR/DEIS to ignore this important NEPA deficiency.**

Identify the Baseline Year against which the impacts of the TSP will be compared. The Baseline Year should be clearly identified in the introductory paragraphs of Section 5.0 on page 5-1.

A speed limit should be imposed on ships transiting the Bay Channel. Ship wake induced waves generated by moving deep draft vessels in the Bay Channel are a real concern for shoreline property owners, commercial fishermen, and recreational boaters. All can recount actual experiences, if one is willing to listen. The larger the ship, the more loaded it is, and the faster it is traveling combine to generate waves that can be problematic, considering tidal elevation, ambient wave condition, and the distances from the passing ships. The summary provided in Section 5.3.1.2.1 simply states the results of Vessel Generated Wave Energy (VGWE) assessment "…indicates a reduction in vessel generated wave energy for the future With-Project condition relative to the future Without-Project condition". While that may be what the modeling analysis indicated, in the real world of the public observations, ship wake generated waves can pose safety and property threats on occasion and are believed to contribute to the erosion of portions of Mobile Bay's shoreline. What is known is that moving ships routinely reach speeds ranging between 10 and 15 mph. To address the public concerns, the GRR/SEIS should at least address the possibility of imposing speed limits on ships transiting the Bay Channel, particularly loaded vessels. The assessment should also to determine if mandatory speed limits would have material adverse effect on the benefits attributed to the TSP.

Water quality modeling analysis should have considered a multi-year drought condition to adequately analyze the effects of the TSP and if could alter salinity regimes within Mobile Bay to the point that specific environmental resources could be adversely affected. As discussed in Section 5.3.3, follow-on environmental resource impact discussions in the Main Report, and in Appendix C that deal with oysters and SAV, water quality modeling of salinity only considered the historic freshwater flow conditions of year 2010. Merely considering annual periods of expected high and low freshwater conditions of a single year is not an adequate approach to determine if the TSP could alter Mobile Bay's salinity regime sufficiently to pose concerns for specific environmental resources.

The greatest prolonged changes in salinity in Mobile Bay occur during periods of sustained low flow that occur during multi-year drought events that affect significant portions of the Mobile

Bay Drainage Basin. Such droughts typically span two to three years, and can influence the extent of certain SAV communities, particularly those "grassbeds" occurring south of the Causeway, until recovery occurs in the years following the drought. In addition, low freshwater discharge conditions caused by droughts can contribute to the decline in oyster harvests as shown in Attachment 2.

If the TSP has the potential to have a measurable influence on SAV communities and/or oyster populations, those effects would be most strongly manifested during periods of "extreme drought". It should be a relatively easy task to consider the existing hydrologic record to select a representative multiyear drought period to analyze in the model. Extreme drought conditions have occurred several times within the Mobile Bay Drainage Basin since the 1970s and were well publicized when they occurred. In short, the model must be rerun to generate the projected "worst case" salinity regimes that could reasonably be expected to occur in the foreseeable future under the TSP during a multiyear drought. That approach is necessary if the potential effects of the TSP on salinity levels, SAV, oyster drills, oysters, and other key environmental resources in Mobile Bay are to be adequately disclosed in the GRR/SEIS.

The impacts of shoreline erosion on sea turtle nesting should be discussed. Section 5.9.1 should be expanded to acknowledge that a contributing consequence of the progressive erosion and retreat of Dauphin Island's Gulf Shoreline is the low success rate of sea turtle nesting on the island. Local volunteers with the "Share the Beach" program on Dauphin Island regularly locate and monitor sea turtle nests during the spring-summer nesting season, keeping records on the number of nest attempts, clutches laid, and the nests that successfully hatched baby turtles. The volunteers indicate that many failed nest attempts on Dauphin Island occur because of the absence of suitable foreshore elevated areas which results in many female turtles returning to the water without depositing eggs because a suitable nesting location cannot be identified. A large number of other nests are destroyed each year by high wave conditions before their eggs hatch. It is believed the percentage of successful nesting attempts and nests is lower on Dauphin Island compared to Baldwin County's beaches to the east. The lower percentage is believed to be associated with the deteriorated shoreline conditions attributable to erosion. This information is pertinent because Dauphin Island provides a substantial portion of Alabama's total Gulf shoreline that is theoretically available for nesting by sea turtles. This information should be verified with be verified and included in the GRR/SEIS.

Figure 3-17 on page 3-65 in Appendix C - Environmental already shows that maximum salinity concentrations under the TSP would be high enough to create significant concerns in lower Mobile Bay. This same figure should be prepared for multiyear drought conditions for the With Project Alternative (i.e., TSP) and information provided indicating the exposure duration that be experienced by SAVs, oysters, and other major environmental resources within Mobile Bay.

Because of the potential for the TSP to contribute to changes in salinity concentrations during drought conditions, after the model is rerun, the revised Main Report text discussion should include a table(s) and figures comparing the extent of the drought associated salinity regimes with the TSP. The sites shown in the table and figures should represent key locations in the Study Area in which the modeled TSP condition are compared against without TSP conditions. The Draft GRR/SEIS is too large and complicated to require the non-scientist layman to dig through the scattered locations in the report in search of key impact information occurring in various appendices.

Identify water depths and specify where and how dredged sands would be placed in the proposed SIBUA expansion. See comments provided above on the TSP that also apply to the discussions in 5.3.3.1 that deal with the SIBUA proposed expansion area.

Describe the distances and directions the simulated fluff layer can be carried by prolonged high freshwater discharge conditions and during peak flood and ebb tidal flows. The discussion on page 5-4 should be expanded to provide the modeled distances over which the simulated fluff layer could be transported under varying hydrodynamic conditions.

The discussion on page 5-4 also summarizes the results of the application of the GSMB-SEDZLJ advanced sediment bed model for thin layer disposal in Mobile Bay. The model considered "…sediment transport throughout the project area…", indicating '…there would be no expected erosion or changes to the position of the Mobile Bay shorelines resulting from the TSP". **This finding appears the contradict previous statements that thin layer disposal is beneficial for Mobile Bay. If no changes were detected by the model, then clarify what the benefits are to Mobile Bay from thin layer disposal. The wording sounds like the Mobile District is talking out of both sides of its mouth on this issue.**

Explain why disposing of maintenance dredged material in open water over thousands of acres of Mobile Bay bottoms will not increase turbidity values above ambient levels. On page 5-14, the statement is made that "…there would be no expected increase in the concentrations of the turbidity as a result of the implementation of the TSP." Given the magnitude of the annual maintenance dredging operations and the fine-grained nature of the sediments dredged, this impact statement does not make sense. Explain how this can be. It would be helpful to include a table of modeled values compared against field turbidity measurements.

Above comments dealing with the future maintenance disposal capacity deficit issue also apply to the discussions on pages 5-18 and 5-19 addressing the SIBUA and ODMDS, respectively. These discussions should also be revised to address the above comments.

Supportable scientific proof is needed to substantiate the allegation that the proposed SIBUA expansion will effectively bypass dredged sand to the littoral drift system west of the Bar Channel. Page 5-23 states that the proposed SIBUA expansion "…provides an effective means of continued bypassing of sand dredged from the Bar Channel to the downdrift littoral system." The Mobile District has yet to provide definitive information that unquestionably supports this allegation and to demonstrate the dredged sands will not continue to accumulate within the expanded disposal area despite the Corps previous assertions the sands would rejoin the littoral drift system. In short, how does the Mobile District know that the propose SIBUA expansion "…provides an effective means of continued bypassing of sand dredged from the Bar Channel to the downdrift littoral system." It is not enough for the GRR/SEIS just to make that statement. The report must provide adequate information to demonstrate the statement is valid. The public will no longer accept such a statement from the Mobile District unless it can demonstrate its reliability.

Public Involvement

Why are the preparer names redacted from the various public comment letters contained in Appendix E? Other Corps reports have not redacted the names of the public.

Examination of the Public Comments in Appendix E compared to the Corps planning considerations and the TSP indicates the public's views and concerns were largely ignored and

not addressed in the planning process. Major examples include: (2) the failure to address the historic erosion losses of large portions of the west ebb tidal delta platform since 1980; and (2) refusal to consider a Section 302 disposal alternative to restore the eroded Sand/Pelican and Dauphin Islands by improved placement of dredged sands in water depths ranging between 0 and 15 feet atop the crest of the ebb-tidal delta shoal.

Mobile Harbor Outer Bar Channel Dredging History (1980-2016)

(Source: USACE for the period 1980-2009 and estimated for the period 2010-2016 based on the average annual maintenance quantities reported for the preceding 30 years)

Dredging 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	Nearshore Feeder Berm
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
2010-2016 (estimated)	3,523,698	SIBUA
Total Dredged from Outer Bar Channel	**29,442,209**	For 37 years 1980-2016
Total Placed in Ocean DA	**14,672,078**	For 37 years 1980-2016
Total Placed at Nearshore Feeder Berm	**656,089**	For 1987 only
Total Placed in SIBUA or at Lighthouse	**13,124,045**	For 37 years 1980-2016
Average annual maintenance dredging quantity	**503,385**	For 30 years 1980-2009

[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.

[4/] Excludes new work deepening in 1989-1990 and 1999

Method used to estimate maintenancedredging quantities 2010-2016 and total dredged 1980-2016:

Step 1: 24,918,514 - (6,755,352 + 3,061,598) = 15,101,564 (O&M dredging only for 1980 through 2009)

Step 2: 15,101,564 ÷ 30 = 503,385 yd^3/year average OM for 30-year period between 1980 and 2009

Step 3: 503,385 × 7 = 3,523,695 yd^3 estimated as being dredged for 7-year period between 2010 and 2016

Step 4: 24,918,514 + 3,523,695 **= 29,442,209 yd^3** estimated dredged from Outer Bar Channel (1980 to 2016)

ATTACHMENT 1

Oyster Landings for Alabama from 1950 to 2016
(includes both reef and off-bottom harvests for recent years)

Year	Pounds of Shucked Meat	$	Notes
1950	2,070,300	534,116	
1951	2,191,400	761,205	
1952	1,842,000	572,844	
1953	1,449,700	484,413	
1954	739,300	172,510	
1955	1,580,600	338,301	
1956	769,900	174,487	
1957	1,291,200	288,683	
1958	457,600	111,607	
1959	894,800	278,521	
1960	1,169,300	317,045	
1961	508,500	162,412	
1962	442,700	164,527	
1963	995,400	352,577	
1964	1,005,300	324,125	
1965	492,400	206,685	
1966	1,304,500	606,538	
1967	2,087,400	1,007,831	
1968	1,211,800	608,198	
1969	480,700	250,598	
1970	279,400	157,500	
1971	249,500	151,620	
1972	1,069,400	700,636	
1973	590,100	496,302	
1974	732,800	640,657	
1975	638,100	576,149	
1976	1,236,100	1,155,475	
1977	1,549,200	1,548,399	
1978	760,011	846,833	
1979	460,344	479,137	
1980	54,755	72,265	Year after Hurricane Frederic
1981	1,329,925	2,002,392	
1982	1,496,949	2,150,500	
1983	335,666	417,153	
1984	477,248	681,186	
1985	1,441,847	1,811,331	
1986	945,560	1,563,853	
1987	88,307	293,904	Multi-year basin-wide drought?
1988	103,242	276,092	"
1989	11,476	30,828	"
1990	84,055	211,047	"
1991	280,959	497,232	"

ATTACHMENT 2

1992	1,201,799	1,728,733	
1993	919,618	1,105,992	
1994	711,992	1,077,783	
1995	709,992	1,117,548	
1996	620,910	1,193,043	
1997	695,320	1,397,908	
1998	340,186	783,499	
1999	376,539	918,542	
2000	791,908	1,755,475	
2001	574,902	1,235,314	
2002	759,194	1,602,331	
2003	815,530	1,622,785	
2004	908,181	2,120,392	
2005	1,041,332	3,020,156	Hurricane Katrina
2006	939,662	3,639,233	
2007	768,823	2,697,805	
2008	71,436	243,401	
2009	22,976	76,588	
2010	67,915	390,195	
2011	295,980	1,321,572	Katrina Cut closed in January
2012	265,286	1,252,994	
2013	133,086	786,032	Four years referenced in Corps report
2014	58,066	441,338	"
2015	28,005	340,607	"
2016	38,517	600,765	"

Source: NOAA

Comments on Byrnes et al 2008 and 2010 reports included with September 23, 2016 letter to COL James DeLapp. The Mobile District did not respond to comments.

The Mobile District's official position that maintenance of the Outer Bar Channel has had no measurable impact on Dauphin Island appears to be supported by only two contractor prepared reports prepared in 2008 and 2010 -- both by Byrnes et al. Those two reports propose a sediment budget calculated for the Mobile Pass Inlet and Dauphin Island based upon bathymetric mapping and dredging records for the period 1920 through 2002. The contents and findings of the two reports are essentially identical, with the major difference being a slight refinement in the data considered in the 2010 report that resulted in minor adjustments to the proposed sediment budget. **In accepting the conclusions contained in the two Byrnes et al reports, the Mobile District selectively ignored the counter views expressed by several other credible sources, including the 1978 report prepared by the Mobile District that agreed with the conclusions of more recent authors.** Hopefully, the results of the ongoing Alabama Barrier Island Restoration Assessment will finally put this longstanding issue to rest.

Review of the 2010 Byrnes et al report raises the following concerns with the proposed sediment budget:

- "Sediment erosion and accretion volumes were quantified for the period 1917/20 to 1986/2002 by comparing (differencing) bathymetric survey data." That means the estimated sediment volume differences for the areas studied were determined by comparing bathymetric maps produced in specific years over the 82-year period considered. Since the hydrographic survey technology employed to produce bottom depth maps has vastly improved over this period, the accuracy of the depth data obtained from maps produced in the early portion of the 82-year period considered compared to the depth data on maps prepared in recent years is unknown. It should be acknowledged that even a slight error in the quality of the mapping can significantly affect estimated sediment erosion and accretion volumes for specific areas studied.

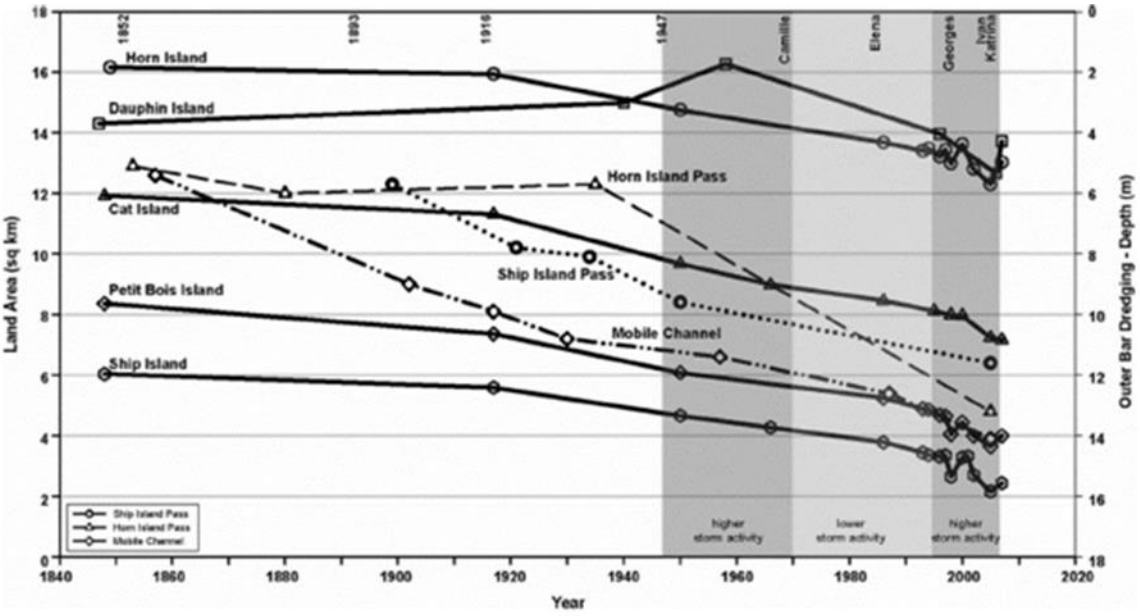
- The 2010 Byrnes et al report asserts that Dauphin Island's continued expansion to the west at a relatively consistent rate over the 82-year period is evidence indicating the sand supply to the island has not been reduced by maintenance of the Outer Bar Channel. However, the proposed sand budget does not consider the loss of sand from a generalized reduction in the topographic relief of Dauphin Island's populated West End that has occurred since the 1970s. While periodic storm created breaches and washover surge channels have indeed healed through littoral drift processes, there has been an overall diminishment in the island's western surface elevations that have not been restored. Instead of being fed by a "robust sand supply" as suggested by Byrnes et al (2010), the observed westward expansion of Dauphin Island may in fact be due to a combination of the cannibalistic erosion of the Sand-Pelican Island shoals,

ATTACHMENT 2

erosion of Dauphin Island's Gulf beaches west of the fishing pier, and to the generalized decrease in the topographic relief of the island's populated West End where washover has become more commonplace during minor storm events.

- In developing the proposed sand budget, Byrnes et al (2008 and 2010) do not directly address the change in Dauphin Island's overall size (including a general narrowing of the island's West End) that began to occur in the latter half of the 82-year period considered. Morton (2007) showed that "…after 1958 [Dauphin] island entered into a net erosional phase that has persisted and most recently accelerated." Morton identified three factors as potentially contributing to Dauphin Island's loss of land: (1) frequent intense storms; (2) sea level rise; and (3) a reduction in sand supply. Land loss on Dauphin Island and its sister barrier islands to the west have consistently occurred since the 1970s even during periods of low storm activity. Tide gauge records do not demonstrate that sea level rise accelerated during this same period.

  Morton attributed the rapid increases in the Dauphin Island land loss rates to reduced sand supplies resulting from dredging of the Mobile Outer Bar Channel and to the disposal of the dredged sand in deeper Gulf waters. Morton suggested a strong temporal correlation exists with the channel maintenance dredging activities. The correlation between channel dredging/disposal and Dauphin Island's loss of land indicates the island's sand budget deficit stems from a long-term reduction in sand supply caused by progressively deeper dredging of the Mobile Outer Bar Channel and the removal of the sand from the littoral drift system. Thus, the channel acts as a sediment sink, trapping sand that normally would have bypassed around the ebb-tidal delta and nourished Dauphin Island and the downdrift Mississippi barrier islands. This means the natural sand transport system is disrupted by dredging that removes the sand from the system and disposes of it in deeper water where it cannot be recaptured in its totality back into the system.



Historical Land Loss for Alabama-Mississippi Barrier Islands (from Morton 2008)

Thus, maintenance of the Outer Bar Channel has an indirect influence on Dauphin Island's historical shoreline changes through induced erosion. Morton contends that such indirect impacts are sometimes more significant than direct impacts because they remain undetected for long periods of time. His view is supported by the casual recollections of locals who first noticed the beginning of erosion of the Sand-Pelican Island shoals in the early 1970s, that were followed in subsequent years by increasing observations of the sustained erosion now affecting Dauphin Island's western Gulf shoreline in particular.

- In their proposed sand budget, Byrnes et al (2010) averaged maintenance annual dredging records between 1920 and 2002 to arrive at 287,000 cy/yr of sand being "…extracted from the channel and disposed of offshore." That amount represents a slight increase in the 274,000 cy/year contained in their 2008 report. The problem with that approach is actual dredging volumes have not remained constant over the entire 82-year period as depicted in the below figure from Byrnes et al (2010).

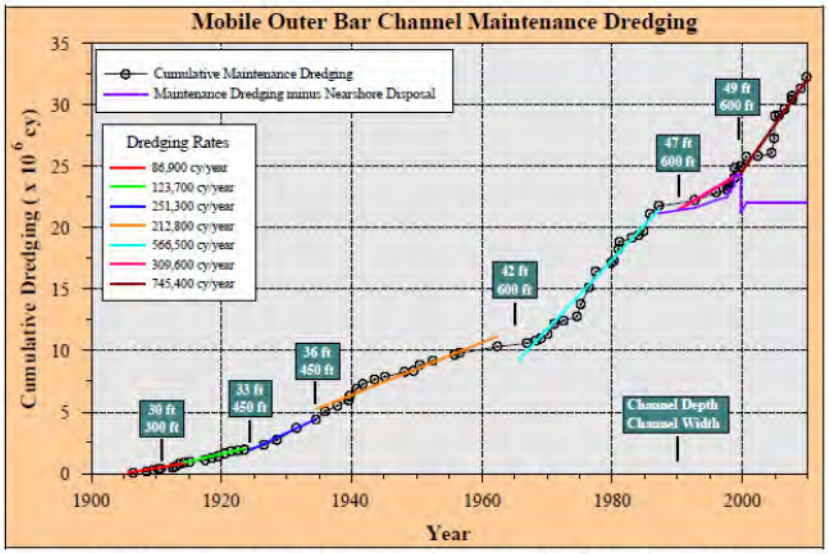


Figure 1-24. Maintenance dredging volumes extracted from the Mobile Outer Bar Channel between 1904 and 2009. Sand extraction rates were determined using linear regression analysis on segments of the curve reflecting changes in channel dimensions with time (data available in Appendix B).

Dredging volumes have actually increased dramatically over the 82-year entire period as shown in the above figure taken from Byrnes et al (2010). Initial shallow dredging of the Mobile Outer Bar Channel had minimal effects on sediment transport when navigation depth requirements were less in the early years compared to the deeper draft requirements of the ships calling on the Port of Mobile today. Byrnes et al (2010) point out that "…between 1956 and 1965, major changes were made to channel width and depth (36' deep by 450' wide prior to 1956 and 42' by 600' wide after 1965), resulting in a 2.5 to 3-fold increase in maintenance dredging quantities." The timeframe within which the "major changes were made to channel width and depth" corresponds closely with the finding reported by Morton (2007) that "…after 1958 [Dauphin] island entered into a net erosional phase that has persisted and most recently accelerated". The dataset considered in the Mobile District's 1978 report that concluded maintenance of the Outer Bar Channel is contributing to the erosion of Dauphin Island also included these years.

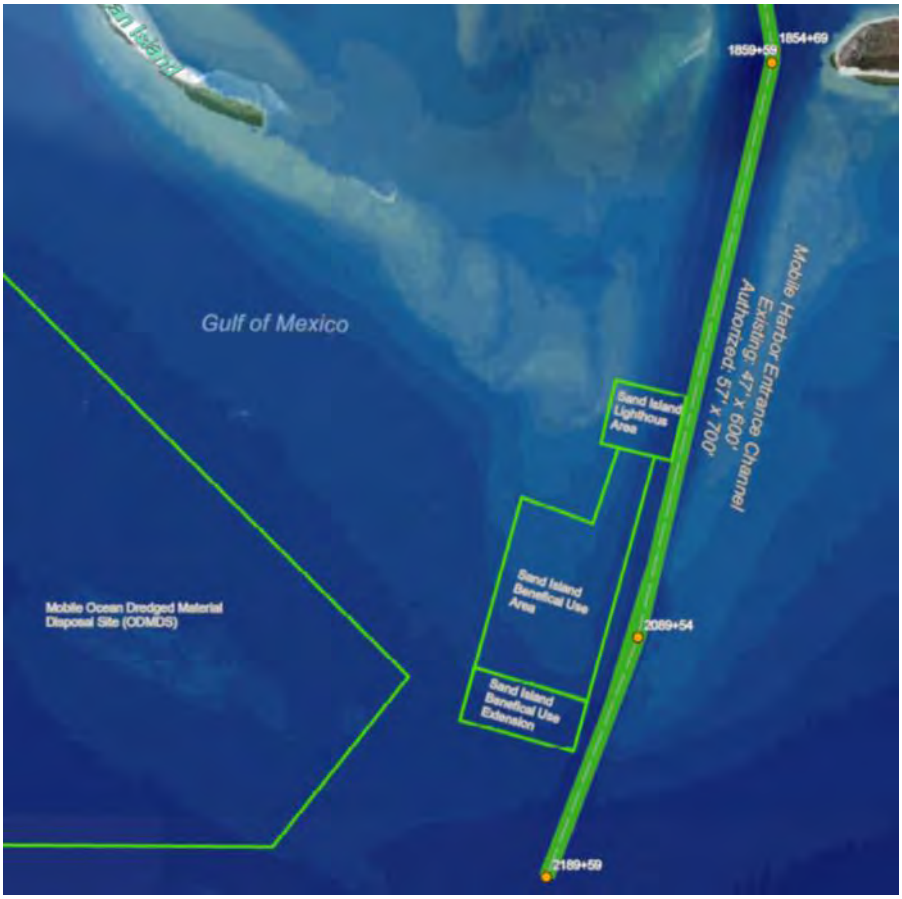
The Mobile District's 1980 report neither investigated the influence of maintaining the then existing Outer Bar Channel on the erosion of Dauphin Island, nor the potential effects of the recommended increased channel depth and width to further influence erosion of the island. Consideration of the volumes actually dredged today will provide a more realistic view of how maintenance of the channel influences the sand budget for the Mobile Pass Inlet and Dauphin Island.

Actual maintenance dredged volumes for the Outer Bar Channel for the 30-year period between 1980 and 2009 are listed in the table on the following page [**See Attachment 1**]. The 30-year period considered includes a series of three increases in channel depth that occurred beginning with 42 feet (originally constructed in 1965), 47 feet (constructed between 1989-90), and the present 49 feet (deepened in 1999). Thus, for this more recent 30-year

period of increased channel depth, the average annual volume of sand dredged and carried offshore for disposal is approximately 503,000 cy. This is almost twice the 287,000 cy/yr used by Byrnes et al. to represent the volume of annual dredged sands considered in their 2010 sand budget model. From a sensitivity analysis standpoint, it would be interesting to see how replacing the current 287,000 cy/yr dredging volume with 503,000 cy/year would affect the sand budget model. It should also be pointed out that in addition to the average annual 503,000 cy/yr of maintenance dredging, an additional almost 10 million cy of sands were dredged to deepen the channel on two separate occasions (i.e., in 1989-90 and 1999) during the 30-year period, with the "new work" dredged sands also being carried to the offshore disposal site out of nearshore littoral drift system. The potential impact on the modern Mobile Pass sand budget from those deepening events is not specifically discussed in the Byrnes et al. 2010 report.

- The Byrnes et al 2010 sand budget indicates 50,000 cy/yr of sand "cross" the Outer Bar Channel from the east. Since the channel is dredged on a one or two-year cycle to provide the 49-foot depth, shoaling rarely reduces effective navigation depths. The maintained channel depth of 49 feet exceeds the depth of the natural 20-foot channel across the bar by almost 30 feet. Because of this great depth, Byrnes et al (2008) refers to the maintained navigation channel as a "gorge". The sand budget distinguishes the 50,000 cy/yr alleged to cross the channel from the Fort Morgan Peninsula from the 161,000 cy/year hypothesized (see below bullet) to be transported landward to the ebb tidal delta from the Sand Island Beneficial Use Site (SIBUA) that includes depths below the -30-foot contour. The sand budget does explain the physical process responsible for transporting 50,000 cy/yr of sand from the east to the west across the channel "gorge".

- The above table **[See Attachment 1]** shows the Mobile District began in 1999 to place maintenance dredged sands almost exclusively within the SIBUA, with the intended goal being to keep "…sand removed from the bar channel in the local littoral drift system." The location of the SIBUA is depicted on the following illustration taken from a Mobile District January 12, 2016 Public Scoping Meeting display. The illustration also shows the relationship of the SIBUA to the Outer Bar Channel, the shallow waters of the Mobile Pass ebb tidal delta above the -30-foot bottom contour, and the offshore Ocean Dredged Material Disposal Site (ODMDS).



SIBUA and Mobile Harbor ODMDS

After just 10 years of consistent use, the Corps had to add 207 acres to the SIBUA by extending its southern boundary by 2000 feet. The Public Notice stated the disposal area needed to be expanded "…provide sufficient depths for access of the dredge equipment…due to site depths changing". The need for the expansion implies that depths were decreasing in the SIBUA because a significant volume of the placed dredged sands were accumulating within the site instead of being incorporated into the littoral drift system as planned. This fact is supported by the below Figure 4-11 which was taken from the Byrnes et al. 2010. Figure 4-11 graphically depicts the accumulated sands in dark blue that existed in the SIBUA in 2002. It is important to note that the sand

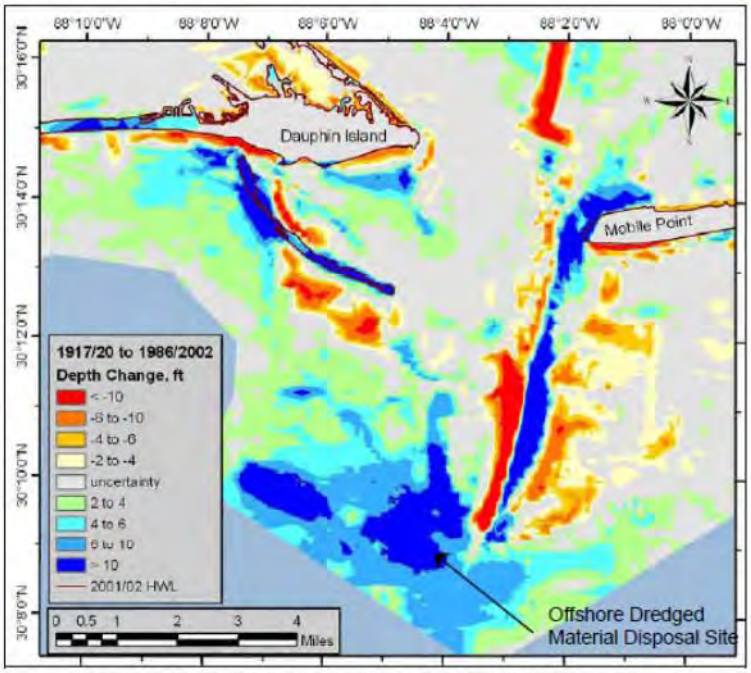


Figure 4-11. Bathymetric change on the Mobile ebb-tidal delta, 1917/20 to 1986/2002. Deposition zones seaward and west of the navigation channel were last surveyed in 1991. The deposition area farthest to the west is the Mobile Outer Mound. The irregular polygon just west of the outer mouth bar channel is believed to mark the historical location of dredged material disposal from the outer bar channel.

accumulations depicted in Figure 4-11 represent the observed conditions after the SIBUA had been used for just three years between 1999 and 2002. It would be interesting to compare the 2002 sand accumulations with those that exist today to determine if the deposited dredged sands are continuing to accumulate in the SIBUA.

The 2008 southward expansion of the SIBUA, will farther remove placed dredged sands from the ebb tidal delta, which should show an increased tendency for the sand to remain at that location in lieu of being reincorporated into the littoral drift system as intended. Between 1999 and 2009, a total of 9,600,347 cy of maintenance dredged sands had been placed in the SIBUA. The total volume placed within this site has continued to increase in the seven subsequent years between 2000 and 2016.

- Byrnes et al (2010) suggests in their proposed sand budget that over the 82-year period between 1920 and 2002, an average of 161,000 cy/yr is transported annually from the offshore area within which the SIBUA landward to the ebb tidal delta's eastern lobe. This volume estimate is questioned. As shown in the above table, dredged material had only been placed in the SIBUA during the last three years of the 82-year period considered. That means the 161,000 cy/yr estimate is based on only three years of data. The 161,000 cy/yr volume, if correct, represents around 48% of the 337,000 cy/yr estimated to be naturally transported from eastern lobe of the ebb tidal delta into the

Outer Bar Channel, 85% of which was subsequently dredged and carried offshore for disposal. Further, considering the average of 287,000 cy/yr the sand budget proposes is dredged annually, 161,000 cy/yr would mean that around 56% of the dredged sands deposited offshore are transported landward to the ebb tidal delta's eastern lobe to be reincorporated into the littoral drift system. These are very large percentages which conflict with the observed facts that Dauphin Island's Gulf shoreline is eroding, and has been since the early 1970s, because the island is suffering from an overall deficit of sand. As important as the issue of how much of the dredged sand placed in the SIBUA is actually returned to the littoral drift system, it is difficult to understand how the proposed 161,000 cy/yr volume can be based on essentially three years of dredged material disposal data and the bathymetric conditions in the SIBUA out of an 82-year period of record. Thus, this aspect of the proposed sand budget does nothing to explain why Dauphin Island is suffering from a general deficit of sand. As such, the 161,000 cy/yr estimate is questionable and requires further investigation and analysis.

- As stated in the above bullet, if the 161,000 cy/yr volume estimate is correct, that would mean 56% of the average maintenance volume of 287,000 cy/yr dredged from the Outer Bar Channel and carried offshore for disposal in the SIBUA each year is returned to ebb tidal delta and eventually transported by natural nearshore hydrodynamic forces to nourish Dauphin Island's eroding shoreline. Even if that assumption is correct, it is logical to expect that the cumulative year-in and year-out loss of the remaining 44% of the dredged sands that appear to be accumulating in the SIBUA and effectively lost from the littoral drift system to eventually begin to adversely affect the natural sand budget. This logic is being borne out by the steady ongoing erosion of the Sand-Pelican Island shoals and Dauphin Island's Gulf shoreline. Further, if the 161,000 cy/yr return estimate in the proposed sand budget is correct and the modern dredging average of 503,000 cy/yr is considered, that would mean the amount of sand projected to be returned to the ebb tidal delta should decrease from 56% to 32% of the total dredged and carried offshore for disposal each year.

  The proposed sand budget should be updated to reflect "modern" conditions within the SIBUA as they exist today after the site has experienced at least 15 years of receiving the more realistic modern average annual dredging volume of 503,000 cy/yr. Further, the GRR Study should also include a comprehensive analysis of the potential effects of the considered increases in channel width and depth to determine if enlarging the channel could further affect the natural sand budget for Mobile Pass and Dauphin Island.

- The 2010 Byrnes el al. report concludes that "…based on all available information, there appears to be no measurable negative impacts to ebb-tidal shoals or Dauphin Island beaches associated with historical channel dredging across the Mobile Pass Outer Bar." **If that conclusion is to be accepted by all parties, which it currently is not, the central question that must be answered is: What is causing the severe erosion of the Sand-Pelican Island shoal and Dauphin Island that began to occur in the latter half of the 20th century and has been coincidental with increased dredging of the Outer Bar Channel?**

The above Mobile District Response misses the point made by the comment: **Since the 1980 report failed to investigate the Dauphin Island erosion issue as the Mobile District committed would occur in the previously identified 1975 letters, during the intervening 37 years to the present, the island has continued to erode with no corrective remedy being identified.** The Mobile District Response states "…the GRR will address **potential effects of proposed channel improvements to the existing navigation project** [emphasis added]". That extremely narrow study objective implies the Mobile District plans to conduct the GRR Study in a manner that will not only violate the Corps' ER 1105-2-100 and other planning policy and guidance, but also the provisions of the Council on Environmental Quality's NEPA regulations. Under the current Mobile District approach, whatever erosion losses the island experienced between 1980 and the Study's base year would not be investigated in the GRR Study, even if the Outer Bar Channel maintenance program contributed to those losses. The Study would only investigate the island's incremental additional erosion losses projected to occur over the 50-year future period considered in the Study. What is needed, and expected by the concerned public, is for the GRR Study to include efforts directed at thoroughly investigating the effects of the Outer Bar Channel (both historic and authorized channel dimensions) on the erosion of Dauphin Island. And importantly, the GGR Study should not be allowed to ignore the erosion issue as the Mobile District did when it prepared the 1980 report.

As pointed out numerous times to the Mobile District staff, the 1980 Corps report is seriously flawed in that it completely ignored the Dauphin Island erosion issue, failed to comply with Section 5 of the Rivers and Harbors Act of 1935, ignored the findings of the 1978 Corps report, and did not honor the written commitment made by the Mobile District Engineer in 1975 to investigate the Dauphin Island erosion problem. If the GRR Study does not address the historic sand losses that have occurred due to maintenance of the Outer Bar Channel interrupting the littoral drift system, **what the Mobile District and the Alabama State Port Authority will in essence be conveying to the concerned stakeholders is: "Dauphin Island must continue to accept, bear, and endure the adverse consequences and economic hardships resulting from the island's erosion, while the Port of Mobile and the Theodore Industrial Port continue to profit from the transportation benefits of the channel without having to pay the "full cost of doing business".**

Considering information contained in various reports produced by both the Mobile District and the US Geological Survey, maintenance of the Outer Bar Channel has interrupted the littoral transport of sand across the Mobile Pass Inlet dating back to 1939. Based upon those reports, it is possible to select and to individually build a case to support any one of the following years as the baseline from which to address the historic sand losses: 1939, 1958, 1966, 1969, 1978, 1980 and 1986. However, 1980 appears to represent the most defensible year to consider for the GRR Study.

Since the 1980 report did not address the effects of channel deepening on the littoral drift system, that report has a significant outstanding technical, scientific, and logic deficiency that must be corrected in the GRR Study. The study must address the impacts of the historical sand deficit on Dauphin Island attributable to maintenance of the Outer Bar Channel dating back to at least 1980. During the 37 years since the 1980 report was completed, maintenance of the Outer Bar Channel has continued, further contributing to the erosion of Dauphin Island. For example, the significance of the amount of beach quality sands removed from the littoral drift system between 1980 and 2009 is depicted in the

above table. Over that period, a total of 24,918,514 cy of were removed by a combination of new work and maintenance dredging, with 14,672,078 cy being disposed of in deep Gulf waters and permanently lost from the littoral drift system. An additional 10,256,436 cy was placed in the SIBUA or in its general vicinity. Based on a modern average annual maintenance volume of 503,000 cy/yr as discussed, would mean an additional 3,523,698 cy of sand could also have been dredged between 2009 and 2016 and placed in the SIBUA.

These historic sand losses that have occurred since 1980 should be addressed in the GRR Study. To ignore them would be an irresponsible action on the part of the Mobile District. The GRR Study must also consider appropriate mitigation measures to restore the historic and future sand losses attributable to the Outer Bar Channel for both the "Without Project" and the "With Project" conditions. To do otherwise, would apply an entirely different standard to the evaluation of the Dauphin Island erosion issue than the Mobile District's used in its recently completed Mississippi Barrier Island Restoration Plan SEIS where it recommended selected islands be restored to the pre-Hurricane Camille conditions of 1969. **Compliance with NEPA requires that the impacts of past actions of an existing project being studied for further improvement must be considered if those historic impacts have not been addressed in a previous NEPA document and if those impacts are relevant to the improvements being considered.**

Given the longstanding nature and critical importance of the erosion issue, it is not acceptable for the Mobile District to base its entire position that "…dredging and placement practices associated with operation and maintenance of the Mobile Harbor Channel have not had a measurable impact on Dauphin Island" on just two contractor reports prepared by the same authors (i.e., Byrnes et al, 2008 and 2010). The earlier report was prepared in connection with a lawsuit against the Corps, with the latter report essentially "refining" analysis of the data considered in the first report. Neither of these reports have not been submitted for exterior professional peer review; satisfied all upward Corps reporting and review requirements; and been subjected to appropriate agency and public scrutiny. The Dauphin Island erosion issue can only be resolved by conducting thorough objective and transparent analyses in which the trust of the concerned and affected stakeholders is gained.

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From: [redacted]
To: Mobile Harbor GRR
Cc: [redacted]@att.net; [redacted] earthlink.com
Subject: [Non-DoD Source] Sierra Club Comments on Mobile Harbor Draft GRR/SEIS
Date: Monday, September 17, 2018 9:09:49 PM
Attachments: 2018-9-15 - Sierra Club letter of comment on Mobile Harbo Draft GRR-SEIS.pdf

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Sierra Club comments on Mobile Harbor Draft GRR/SEIS are attached.

Comment 21

SIERRA CLUB
FOUNDED 1892

Mobile Bay Sierra Club

P.O. Box 2682 Mobile AL 36652

September 16, 2016

COL Sebastien P. Joly, Commander
US Army Corps of Engineers
PO Box 2288
Mobile, Alabama 36628-0001

RE: Comments on Mobile Harbor Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (Draft GRR/SEIS)

Dear COL Joly:

The Sierra Club has reviewed the Draft Mobile Harbor Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (Draft GRR/SEIS). The Draft GRR/SEIS analyzes the projected economic benefits and environmental impacts of deepening Mobile Harbor five additional feet. Our comments are summarized in the following paragraphs.

1. The purpose of the GRR/SEIS is to reanalyze the 1980 Survey Report/EIS that originally recommended Mobile Harbor be deepened and widened. The 1980 report failed to: (1) consider the erosion of Dauphin Island and (2) evaluate how deepening the Mobile Harbor Bar Channel would influence erosion of Dauphin Island. As a result, the 1980 Survey Report/EIS was deficient by completely ignoring Dauphin Island's erosion problem even though the Mobile District was aware of the erosion issue and its connection to maintenance of the Bar Channel because a previous 1978 report. Corps ER 1105-2-100 requires a General Reevaluation Report to conduct a "…reanalysis of a previously completed study, using current planning criteria and policies, which is required due to changed conditions and/or assumptions". Further, Section 1508.7 of the Council on Environmental Quality's (CEQ) NEPA regulations requires the cumulative impacts of past actions related to and relevant to the subject project being evaluated in a current NEPA document. However, the Mobile District staff has refused to consider the erosional changes to Dauphin Island since 1980 in the Draft GRR/SEIS, stating the GRR Study will only consider present and projected future changes to the Study Area environment attributed to the TSP. The historic

erosion of Dauphin Island since 1980 represents a significant "changed condition" within the Project Area. By ignoring the erosion that occurred between the 1980 Survey Report and the 2018 Baseline Year considered in the GRR Study, the resulting Draft GRR/SEIS has continued to perpetuate the 1980 report's original error of omission. The historic and ongoing erosion problem clearly represents a relevant issue associated with maintenance of the Bar Channel proposed for deepening. The historic erosion resulted from the effects of past maintenance actions that are relevant to and useful in analyzing whether the reasonably foreseeable effects of proposed channel deepening may have a continuing, additive and significant relationship to the shoreline erosion effects. Based on the above, the Sierra Club believes the Draft GRR/SEIS is deficient because it fails to adequately comply with §1508.7 of CEQ's NEPA Regulations by not analyzing the effects and consequences of past impacts of channel maintenance on the erosion problem that will not only be continued but made worse by deepening the channel. The Draft GRR/SIS also fails to adequately comply with paragraph 4-1a(1) of Corps ER 1105-2-100 by not considering the significant erosion of Dauphin Island that has occurred since 1980 and if deepening of the channel could exacerbate the effects of shoreline erosion.

2. The Mobile Harbor project should mitigate for the historic, present, and future contribution of the Bar Channel maintenance program on the erosion of Dauphin island. Corps dredging data show that over the 36-year period between 1980 and 2016, approximately 72% (i.e., approximately 21,200,000 cy) of the littoral drift sands crossing from the Fort Morgan Peninsula were diverted or entirely removed by channel maintenance from the nearshore system. Proof of the historic loss of littoral drift sands is contained in the Draft GRR/SEIS which acknowledges 58% of the sand placed in the SIBUA since 1999 alone has accumulated within the disposal site and not rejoined the littoral drift system as the Mobile District stated would occur. The Mobile District needs to take the next step by unequivocally acknowledging the role the Bar Channel maintenance program plays in reducing the supply of littoral drift sands which is starving Dauphin Island of much needed sand.

3. Page 5-23 of the Draft GRR/SEIS states the proposed Sand Island Beneficial Use Area (SIBUA) expansion "…provides an effective means of continued bypassing of sand dredged from the Bar Channel to the downdrift littoral system." The Sierra Club is not prepared to support the proposed SIBUA expansion until the Mobile District provides the information identified in our September 6, 2018 letter sent in response to your August 8, 2018 Public Notice No. FP18-MH01-09. The GRR/SEIS should be revised to provide assurances, based upon sound scientific documentation, that up to 100% of the dredged sands placed in the proposed SIBUA expansion area will rejoin the littoral drift system to nourish Sand/Pelican and Dauphin Islands. It is not enough for the

GRR/SEIS to just make the above quoted statement. The GRR/SEIS must also provide adequate information to thoroughly demonstrate the statement is valid.

4. The Draft GRR/SEIS ignores the concerned public's request to take advantage of the "opportunity" to analyze a disposal alternative that would implement Section 302 of the WRDA 1996 to beneficially use dredged sands to restore Sand/Pelican Island and nourish Dauphin Island. Since 2011, the Mobile District has consistently applied the Section 302 authority to justify alleged "beneficial uses" of dredged material within Mobile Bay but has never addressed a truly beneficial use of dredged sand from the Bar Channel to counter erosion of Dauphin Island under the discretionary authority granted the Corps under Section 302. It is time the Mobile District took that step which is demanded by the concerned public. Why does the Mobile District continue to refuse to develop the incremental cost of such a beneficial use disposal alternative to maintain the Bar Channel which is certainly within the scope of the project authority presented in Section 1.1.1?

5. The Draft GRR/SEIS acknowledges 364,000 yd/yr (58%) of the 624,000 cy/yr of sand placed in the SIBUA on an average annual basis accumulates within the site instead of moving out to rejoin the littoral drift system as intended. The accumulation of that volume of sand represents a significant interruption of the natural littoral drift system. The GRR/SEIS should state without equivocation that the accumulating sand is interrupting the natural littoral drift system which would mean the channel maintenance program is contributing to the erosion of Dauphin Island by reducing the amount of sand transported to the island. Also, the GRR/SEIS should provide substantiating evidence to prove that the 260,000 cy/yr that does move out of the SIBUA actually rejoins the littoral drift system as alleged by the Mobile District. The Draft GRR/SEIS does not provide that proof.

6. The Draft GRR/SEIS relies upon the results of the Vessel Generated Wave Energy model to assess the effects of ship wakes. The results of that assessment indicate ship generated waves only range between 0.02 ft to 0.15 ft, with the highest values being closer to the Mobile Harbor Federal Navigation Channel and decrease in height further from the channel. Because of the concern over ship generated waves, the Mobile District and Alabama State Port Authority should evaluate imposing speed limits on the larger deep draft loaded ships to reduce the magnitude of waves from passing vessels.

7. The discussion on page 2-45 should be expanded to adequately describe the history of the serious erosion problem that has been clearly observed to be adversely affecting Sand/Pelican and Dauphin Islands since at least the early 1970s. The historic nature of the erosion problem and its connection to the Bar Channel maintenance program

according to the 1978 Mobile District is important. Pertinent background information describing the nature of the loss of these islands dating back until at least 1980 should be discussed in the GRR/SEIS.

8. The only information and literature references provided for the page 2-51 discussion of Sediment Transport at the Coastal/Ebb Tidal Delta are those that support the Mobile District's position that maintenance of the Bar Channel does not contribute to the erosion of Dauphin Island. For this discussion to be completely objective, the discussion should also include other relevant information from credible sources that do not agree with the Mobile District position. By excluding coverage of the alternative views of other coastal engineers and scientist that disagree with the Mobile District on the significant and relevant erosion issue causes one to question the objectivity of the Draft GRR/SEIS.

9. A portion of the projected $34.5 million of annual excess benefits should be used to pay for beneficial use projects with dredged material from the Mobile Harbor project; environmental restoration projects; and mitigation for the significant historic adverse impacts of maintaining the ship channel on key resources. Example projects include restoration of Sand/Pelican and Dauphin Islands; restoration of Mobile Bay's depleted oyster reefs; and to prepare Study Area natural resources to withstand future Sea Level Rise.

10. The Draft GRR/SEIS Economic Analysis does not discuss a relevant element of the true cost to the Nation of investing $387,000,000 to deepen and maintain the Mobile Harbor project at an increased depth of 5 additional feet over the next 50 years. The Congressional Research Survey developed information to aid Congress arrive at decisions on which of the nation's ports represent the best value in the competition for funds to pay for deepening their channels to attract the larger ships transiting the new Panama Canal. A 2011 report entitled "Harbor Maintenance Trust Fund (HMTF) Expenditures" authored by John Frittelli showed that over the 10-year period between FY 1999 and FY2008, Mobile Harbor was the second most expensive navigation project to maintain in the nation. Of equal importance, Mobile Harbor was not included among the nation's top 25 projects in the amount of import fees received which provide the source of monies for the HMTF. Frittelli's subsequent 2013 report entitled "Harbor Maintenance Finance and Funding" compared the $8,720,000 of import taxes collected at Mobile Harbor in FY2011 against the Corps' $23,560,000 budget request to maintain the project for that year. The comparison showed 62% of the federal cost to maintain Mobile Harbor in FY 2011was subsidized by the import taxes received at other more profitable ports in the nation. That information should also be discussed in the GRR/SEIS.

11. To support its contention that disposing dredged material within Mobile Bay benefits the bay's environment, the Draft GRR/SEIS depends entirely upon three brief and vague unsubstantiated statements made in the July 2014 Environmental Assessment entitled "Modification to Mobile Harbor Operations and Maintenance Addition of a Long-Term Open Bay Thin-Layer Disposal Option". The Draft GRR/SEIS neither describes what the specific environmental benefits are received by the bay by spreading 4,000,000 cy of dredged material over its bottoms nor any evidence from scientific studies to support the "benefit" contention. By pursuing thin layer disposal in Mobile Bay as an "alternative to disposal of such material in the Gulf of Mexico" as required by the WRDA of 1986, the Mobile District has interpreted Section 302 of the WRDA of 1996 as giving the Corps *carte blanche* approval to abandon disposal in the ODMDS in favor of various disposal options within Mobile Bay without having to adequately justify the alleged beneficial uses the Mobile District contends results from a return to dredged material disposal in the bay. The Draft GRR/SEIS continues the Mobile District's pattern of not providing the necessary requisite scientific-based information to support beneficial use claims. The Draft GRR/SEIS bases its recommendation entirely upon the 2014 EA to place the TSP's 500,000 cy/year of future maintenance material in the same thin layer sites over the next 50 years that are already receiving 4,000,000 cy/year from maintenance of the existing Bay Channel. In reality, thin layer disposal is primarily being driven by the Mobile District's desire to eliminate the cost of transporting dredged material to the ODMDS. Detailed information from appropriate studies and the scientific literature must be added to the GRR/SEIS to support the contention thin layer disposal is beneficial for Mobile Bay. Otherwise, use of the thin layer sites to receive future maintenance material dredged from Bay Channel cannot be supported from an environmental benefit standpoint since there appears to be no such benefits. All federal and state agencies and environmental organizations should call for a cessation of thin layer disposal in Mobile Bay until the Mobile District can prove the existence of the alleged environmental benefits of thin layer disposal.

12. Section 2.5.12 should be expanded to point out residents in downtown and midtown Mobile have filed a lawsuit against the Alabama State Port Authority over fugitive coal dust originating from the McDuffie Coal Terminal. Airborne coal dust is settling in residential neighborhoods west of the terminal despite required measures that are supposed to prevent the escape of coal dust. Given the fact that increased future shipments of coal, as both exports and imports, are projected to occur in the benefit calculations to justify the TSP, the existence of the present lawsuit is relevant to the TSP and should be discussed in the GRR/SEIS.

13. Complaints and concerns over the existing occurrence of various petroleum and chemical odors in the Africatown community and other residential neighborhoods

bordering the Port of Mobile, tank farms, and railroads exiting the port facilities have been raised by nearby residents. These concerns were presented at relatively recent City of Mobile land use planning and zoning meetings concerning the possible expansion of the tank farms bordering Mobile Harbor. The Draft GRR/SEIS forecasts petroleum and chemical commodity shipments will continue to increase over the next 50 years. Given the existing concerns expressed by nearby residents over existing escaping vapors from port related facilities, Sections 2.5.12 and 2.5.13 should be expanded to thoroughly discuss this local air quality issue.

14. The discussion on page 4-6 stating filling of the relic shell mining areas with new work dredged material will "…restore sediment to the system and improve bay bottom conditions…" should be expanded to describe exactly what the alleged benefit is, including the data from scientific studies that support this action as being a legitimate beneficial action. The Draft GRR/SEIS does not explain how moving existing sediments within Mobile Bay from one location to another within the bay will "restore sediment to the bay system".

15. The GRR/SEIS does not explain how the total dredged material disposal capacity needs for the Bay Channel, including the TSP increment, will be satisfied over the entire 50-year period of analysis. Tables 4-3 and 4-5 show the disposal capacity remaining after 20 years would be 52,000,000 cy for the ODMDS and 59,594,000 cy for the thin layer open water sites within Mobile Bay. Based upon an annual dredging volume of 4,500,000 cy for the Bay Channel (see Table 4-5), during the last 30 years of the 50-year period of analysis, a total of 135,000,000 cy would be dredged from the Bay Channel. Since the remaining capacity of the thin layer sites would be 59,594,000 at the beginning of the final 30 years of the 50-year period of analysis, there would be insufficient disposal capacity in the thin layer sites to accommodate 75,406,000 cy (135,000,000 minus 59,594,000) of sediments to be dredged from the Bay Channel. Even if the remaining capacity of 52,000,000 cy in the ODMDS at the beginning of the final 30 years of the planning period was used to receive the excess Bay Channel sediments, there would still be a remaining disposal capacity shortfall of 23,406,000 cy (75,406,000 minus 52,000,000) that would have to be satisfied. That volume is equivalent to the total volume of sediments that would be dredged during 5 years of maintenance of the entire Bay Channel. Since future satisfaction of that significant disposal capacity shortage could materially influence the cost side of the BCR for the TSP, the GRR/SEIS must address the disposal capacity issue in considerably more detail for the entirety of the 50-year period of analysis. Otherwise, the present conceptual life cycle design for the TSP is incomplete since the ability to adequately maintain the deepened channel in a cost-effective and an environmentally sustainable manner is questionable.

16. The failure of the Draft GRR/SEIS to identify adequate disposal capacity to satisfy the maintenance needs of the TSP, along with the entire Bay Channel) for the entire 50-year study period results in many of the Section 5.0 discussions being deficient. That is because the various elements of the SEIS that address specific resource categories cannot be completed without more detailed information as to where all dredged material will be disposed over the total 50-year economic life of the deepened channel. This specifically applies to the discussions on pages 5-18 and 5-19 that address the SIBUA and ODMDS, respectively, as well as several other discussions in Section 5.0. Before the GRR/SEIS can be finalized, additional work is required to identify all future disposal sites, and their capacities, likely to be used over the 50-year period of analysis. The potential adverse impacts to Mobile Bay from future dredged material disposal are potentially too significant for the GRR/SEIS to ignore the important absence of adequate 50-year disposal capacity for the TSP. The inability of the Draft GRR/SEIS to identify adequate disposal capacity for the entire 50-year planning period makes the SEIS component of GRR/SEIS seriously deficient from a NEPA compliance standpoint because the present TSP does not represent a complete project.

17. Revision of Section 4.2.2.3 is required to provide information to substantiate the contention that:

> "…sand has been transported out of the SIBUA at a rate of approximately 260,000 cubic yards per year. This material has primarily continued to move northwest to join in with the shallow platform associated with Sand and Pelican Islands".

Reliance upon the results of numerical model studies alone does not serve as an adequate source of proof. Since the Mobile District has never monitored the movement of sand placed in the SIBUA, there is no reliable physical information to: (1) identify with certainty in which direction the sand leaving the SIBUA does go; and (2) support the Draft GRR/SEIS allegation that the sand moves "…northwest to join in with the shallow platform associated with Sand and Pelican Islands".

18. The text on page 4-14, Figure 4-8, and Section 5.3.3.1 should be expanded to clearly define the location and depths at which future dredged sands will be placed in the proposed SIBUA expansion. Coastal engineering information indicates the sands must be discharged in waters much less than 15 feet if most of the sand is to have the best opportunity to rejoin the littoral drift system. If the Mobile District proposes to place sand at depths greater than 15 feet, the GRR/SEIS must explain how all the sand placed at such depths will be able to rejoin the littoral drift system and why the historic sand accumulations experienced since 1999 in the existing SIBUA will not be repeated in the proposed expansion area.

19. Before the GRR/SEIS is finalized, the coverage of potential implementable beneficial use options for inclusion in the TSP should be strengthened in Section 4.2.3.2.1. It is not appropriate to delay consideration of beneficial uses of dredged material until the Preconstruction Engineering and Design (PED) phase of project implementation when the public will not be afforded an opportunity to be involved in the development of such measures. That has been the case since 2011 when the Mobile District established the Mobile Bay Interagency Working Group (IWG) to explore beneficial uses of dredged material in Mobile Bay. The concerned public was intentionally excluded from the activities of the IWG which were essentially conducted in secrecy and with little regard for the views of the public.

20. The text accompanying Figure 4-9 should be expanded to provide information about each of the beneficial use sites illustrated in the figure. An explanation is needed as to why consideration of those sites was not included in developing the TSP, especially given the fact that the Bay Channel will experience a future disposal capacity shortfall during the final 30 years of the 50-year period of analysis. Additional text is needed to explain why Figure 4-9 does not include the planned 1,200-acre dredged material disposal island in the Upper Bay south of the Causeway. The Corps maintains the Mobile Bay IWG supports construction of that island as a beneficial use of dredged material to contain future sediments dredged from the Mobile Harbor channel. Because of the long-term shortfall of disposal capacity for the Bay Channel component of the TSP, the Mobile District must explain why the Draft GRR/SEIS fails to include a discussion of the 1,200-acre island which has moved beyond the conceptual planning stage.

21. Ship wake induced waves generated by moving deep draft vessels in the Bay Channel are a real concern from a shoreline erosion standpoint. The larger the ship, the more loaded it is, and the faster it is traveling combine to generate waves that can be problematic, considering tidal elevation, ambient wave condition, and the distances from the passing ships. Section 5.3.1.2.1 of the GRR/SEIS should address setting speed limits on ships traveling within Mobile.

22. The water quality modeling analyses discussed in Section 5.3.3 and Appendix C should have considered a multi-year drought condition to adequately analyze the potential effects of the TSP on salinity regimes within Mobile Bay to determine if specific environmental resources could be adversely affected during extended periods of extreme low flow. The greatest prolonged changes in salinity in Mobile Bay naturally occur during periods of sustained low flow that occur during multi-year "extreme drought" events affecting large portions of the Mobile Drainage Basin. Such droughts typically span two to three years and can influence the extent of certain Submerged Aquatic Vegetation (SAV) communities occurring south of the Causeway,

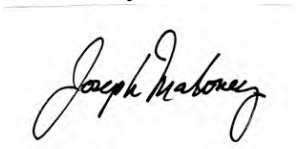
as well as oyster reefs in lower Mobile Bay. The water quality model must be rerun to generate the projected "worst case" Without-Project natural salinity regimes that could to occur in the foreseeable future and compare those conditions with the changes in salinity levels and locations that would occur with the TSP during a multi-year drought.

23. Section 5.9.1 should be expanded to discuss the impacts of Dauphin island's historic shoreline erosion on sea turtle nesting. The progressive erosion of Dauphin Island's Gulf shoreline has contributed to a low success rate of sea turtle nesting attempts on the island. The low success rate is an indirect consequence of shoreline erosion and should be addressed in the GRR/SEIS since Dauphin Island provides a substantial portion of Alabama's limited Gulf shoreline that is available for sea turtle nesting.

24. On page 5-14, the statement is made that "…there would be no expected increase in the concentrations of the turbidity as a result of the implementation of the TSP." Since annual maintenance dredging of the Bay Channel will discharge a total of 4,500,000 cy of dredged fine-grained sediments (including the TSP increment) in open water, that impact statement does not appear to be logical. The text must explain why the disposal of such a large volume of dredged sediments in open water over thousands of acres of Mobile Bay bottoms during a single year will not increase turbidity values above ambient levels. The projected lack of impact defies logical common sense.

In closing, the Sierra Club appreciates the opportunity to review the Draft GRR/SEIS and we hope the Mobile District will give due consideration to the many issues we have raised that merit attention, additional study, and evaluation before the Final GRR/SEIS is prepared.

Sincerely



Joseph Mahoney, Chair, Executive Committee
Mobile Bay Group Sierra Club

Comment 22

SIERRA CLUB
FOUNDED 1892
Mobile Bay Sierra Club

P.O. Box 2682 Mobile AL 36652

September 6, 2016

COL Sebastien P. Joly, Commander
US Army Corps of Engineers
PO Box 2288
Mobile, Alabama 36628-0001

RE: August 8, 2018 Public Notice No. FP18-MH01-09 - SIBUA Expansion

Dear COL Joly:

The Sierra Club has reviewed the Environmental Assessment (EA) identified in the subject public notice. The EA analyzes the effects of expanding the Sand Island Beneficial Use Area (SIBUA) by approximately 3,305 acres to provide for the continued disposal of maintenance dredged sands from the Mobile Harbor Bar Channel. Our comments are summarized in the following paragraphs. Based upon our review we request a public hearing be held on Dauphin Island to allow the public to seek important information on the proposed action not contained in the EA.

Our first observation of the proposed action is that it would impact a sizable area of Alabama's nearshore Gulf bottoms. The 3,305-acre site is equivalent to just over 5 square miles. The EA states the impacted bottoms would be "permanently changed. That statement causes the Sierra Club concern since the EA does not adequately describe what is meant by "permanently changed", raising the question as to why the potential impacts of the proposed action are not significant enough to warrant being evaluated within an Environmental Impact Statement instead of an EA.

The EA does not: (1) predict how many acres of the site will be affected each time the Bar Channel is maintained; (2) explain if all dredged sands placed in the site will move out to join the littoral drift system to nourish Dauphin Island and how long such movement would take; (3) estimate how much of the dredged sands would accumulate within the expanded area; (4) specify if the proposed expansion will allow a larger percentage of placed sand to return to the littoral drift system than the present 50% the Corps estimates moves out of the existing SIBUA; (5) identify what the long-term disposal capacity of the proposed expansion is; (6)

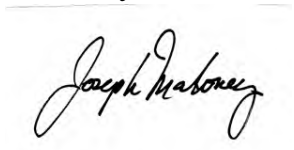
identify the acres comprising the existing SIBUA and if the existing SIBUA will continue to be used going forward; (7) predict how many years into the future use of the SIBUA should remain viable to accept sands maintenance dredged from the Bar Channel; and (8) provide the results of engineering analyses to determine what the long term consequences of using the proposed SIBUA expansion will be on the erosion of Dauphin Island.

The EA contains no information to substantiate the allegation the proposed expansion of the SIBUA will better satisfy the intended purpose of the original designate site which is to return sands dredged from maintenance of the Bar Channel to the littoral drift system west of the channel. Without that information, the Sierra Club and the concerned public cannot be certain the proposed expansion will function any better than the existing SIBUA has to date by encouraging a larger percentage of the dredged sands placed within the proposed 3,305-acre expansion site to actually return to the littoral drift system. In addition, the EA lacks sufficient documentation to demonstrate the proposed expansion will not experience large sand accumulations as has been the case with the existing SIBUA, and that the disposal capacity of the proposed expansion is adequate to accept the total volume of sands estimated to be dredged from a deepened Bar Channel over the next 50 years.

The Sierra Club recommends the site selected for the actual discharge of the dredged sands be in the shallow waters of the ebb tidal delta platform occurring to the immediate east of Sand/Pelican Island. Restoration of that small island located just southeast of Dauphin Island is critical since the island not only feeds sand to Dauphin Island through littoral drift, but also serves to protect the eastern end of Dauphin Island from the waves of the open Gulf. In no case should sands be placed in waters deeper than 15 feet if the primary goal of using the SIBUA is to assure sands dredged from the Bar Channel are returned to the littoral drift system.

In closing, I want to reiterate the Sierra Club's request that a public hearing be held on Dauphin Island, so the Corps can provide the above identified information now missing from the EA. In addition, the Corps should revise the present EA to assure these critical impact issues are considered before the decision is reached to implement the proposed SIBUA expansion. Please note we are sending copies of this letter to our Congressional delegation with the request that they encourage the Corps to hold the requested public hearing. The Sierra Club appreciates the opportunity to review the EA for the proposed action.

Sincerely



Joseph Mahoney, Chair, Executive Committee
Mobile Bay Group Sierra Club

CC:
Senator Richard Shelby
United States Senate
304 Russell Senate Office Building
Washington, DC 20510

Senator Doug Jones
United States Senate
326 Russell Senate Office Building
Washington, DC 20002

Congressman Bradley Byrne
House of Representatives
2236 Rayburn Building
Washington, DC 20515

Comment 23

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 7:39:17 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

[redacted]
Jefferson, Louisiana 70121

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Comment 24

From:	Frederick, Felicia
To:	Mobile Harbor GRR
Cc:	SGordon@RadcliffEconomy.Com; Judith Adams (jadams@asdd.com)
Subject:	[Non-DoD Source] Mobile Channel Project
Date:	Monday, September 17, 2018 6:38:33 PM
Attachments:	201809171013.pdf

Good afternoon, Ms. Jacobson

As a founding member and board member of Keep Mobile Growing <Blockedhttp://www.keepmobilegrowing.org/> (KMG) I want to take this opportunity to reiterate Mr. Gordon's expression of support within the attached, for the Mobile Channel Widening and Deeping Project.

Thank you.

Felicia A. Frederick

Manager, State Government Affairs (Southeast Region)

Chevron U.S.A., Inc.

Policy, Government & Public Affairs

201 St. Charles Avenue, Suite 3707

New Orleans, Louisiana 70170

(985) 773-6082 office

(504) 919-6082 mobile

FAFR@Chevron.com <mailto:FAFR@Chevron.com>

Keep MOBILE GROWING

September 17, 2018

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

Re: Port of Mobile

Dear Ms. Jacobson:

I am writing on behalf of Keep Mobile Growing to express its support for the deepening and widening of the channel serving the Port of Mobile. Keep Mobile Growing is a local association of port-related industries, trades, and family-owned businesses. We have over ninety (90) members who employ over 15,000 individuals in the Mobile area. More information about our group and members is available at www.keepmobilegrowing.org.

Our group's members depend upon the Port. The deepening and widening will ensure that the Port can accommodate larger vessel and eliminate issues associated with delays and demurrage charges due to one way restrictions on channel traffic. The deepening and widening project will expand the capabilities of the port of Mobile and promote increased traffic and commerce. We fully support the project and believe that it is important for maintaining our nation's maritime infrastructure.

Very truly yours,

Steve Gordon
President, Keep Mobile Growing

P.O. Box 2752 • Mobile, AL 36652
(251) 207-1281 • info@keepmobilegrowing.org • www.keepmobilegrowing.org

Comment 25

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 6:33:42 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.
I've had personal interaction with the Corp of engineers , 30 years ago. Regarding the water run off issues from Daphne into the Holly Beach Bay access .
Directly next to my house .
You did nothing then , all of the powers that be have retired .
I'm 100 % positive there is an
endless supply of new engineers that stand ready to get nothing done ---- according to what is good for the EARTH .

Johnnie Johnson

Sincerely,

Fairhope, Alabama 36532

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Comment 26

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 5:33:50 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

[redacted]
Daphne , Alabama 36536

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Comment 27

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 5:15:29 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Mobile , Alabama AL

<Blockedhttps://u1584542.ct.sendgrid net/mpss/o/9wA/ni0YAA/t.2ky/2AraLzzXRcmR9G_TJ_kbOw/o.gif>

Comment 28

From: [redacted]
To: Mobile Harbor GRR
Cc: Congressman Bradley Byrne
Subject: [Non-DoD Source] Dredging of The Mobile Ship Channel and the Impacts on Dauphin Island
Date: Monday, September 17, 2018 5:02:41 PM

COL Sebastien P. Joly District Commander:

I have been monitoring the comments and information re the widening and deepening of the Mobile Ship channel over the past eighteen years. With each year, the Corps has published numerous studies that suggest no significant damage to Mobile Bay and the Dauphin Island shoreline. While the fishing and oyster harvesting industry has suffered extensively in Mobile Bay and the Dauphin Island shoreline has receded by hundreds of feet, the Corps studies refuse to divulge the truth of the changes/damages to our maritime environment.

While I agree that economic development of Alabama and Mobile area will benefit our overall community, the cost to the fishing and oyster industry is being ignored and Dauphin Island continues to erode. The Alabama State Port Authority definitely benefits from the increased cargo through put at the expense of other interested parties. Their should be some compromise to this situation. The increase in Port Authority revenues should be allocated, possibly augmented by available Federal Funding, to fund corrective measures in the Mobile Bay maritime environment and to nourish Dauphin Island beaches. Why not?

You have the resources to encourage this to occur.

To mitigate for the historic and ongoing erosion of Dauphin Island and the smaller Sand/Pelican Island to the southeast, two separate but related actions are needed;

•During maintenance dredging of the Bar Channel, all dredged sand should be placed in the shallow waters (i.e., between 0 to <15 feet) atop the shoal stretching between Sand Island Lighthouse and the east end of Sand/Pelican Island. Essentially 100% of the sand placed in the shallow waters along the top of the submerged shoal should be rapidly incorporated into the natural littoral drift system and moved to restore Sand/Pelican Island and nourish Dauphin Island's eroding Gulf shoreline. The Mobile District of the Corps already has the necessary Congressional authority to undertake that mitigation action as provided by Section 302 of the Water Resources Development Act of 1996. Section 302 was specifically enacted to modify the Mobile Harbor project to allow dredged material to be beneficially used and and to pursue environmental restoration. All the Mobile District has to do is demonstrate the will to apply that existing Congressional authority to modify current maintenance practices for the Bar Channel. However, this mitigation action would only mitigate for the present and future erosion of Dauphin Island.
•To mitigate the historic shoreline losses of Dauphin Island, a much larger project action is needed. That mitigation measure should move by dredging to the Dauphin Island shoreline the millions of cubic yards of sands the Mobile District has removed from the Bar Channel since 1999 that have accumulated within the so-called Sand Island Beneficial Use Area (SIBUA). Those beach quality sands originally came from the Fort Morgan Peninsula and would have been transported by littoral drift to Dauphin Island if the Mobile District had not intercepted the sands by maintenance dredging of the Bar Channel. The millions of cubic yards of accumulated sands now sit a short distance offshore in waters too deep for them to rejoin the littoral system by natural wave and current action. It is these sands that were removed from the littoral drift system that have contributed to the present "sand starvation" of Dauphin Island. The Town of Dauphin Island developed the design details of a project in 2011 that would use around 4 million cy of these sands at an estimated cost of $59 million to restore the island's eroded shoreline which could be readily implemented and/or expanded with little further studySuch a mitigation project could be paid for by either of two viable approaches:

1.According to the Draft GRR/SEIS, the recommended Mobile Harbor deepening project is predicted to generate average net benefits of $34.5 million per year in excess of cost. Thus, mitigation could be paid for with the benefit stream predicted be generated in just two years of operation of the deepened channel. All the Mobile District has to do is recommend this mitigation measure be included in the project recommendation to deepen Mobile Harbor.

2.Alternatively, the Mobile District could proactively work with the Alabama State Port Authority, the Governor of

Alabama and other parties to select for implementation Project ID No. 92 ("West End Beach and Barrier Island Restoration Project") from the list of Alabama Coastal Restoration Suggested Projects being considered by the Alabama Gulf Coast Recovery Council. That approach would allow the mitigation project to be paid for with Deepwater Horizon Oil Spill related monies instead of being charged to the Mobile Harbor Deepening Project.

I look forward to some new announcements that reflect the total community interests in this subject. Too many efforts, by those in power, to prevent positive solutions and progress have handicapped our island community.

Thank you for your consideration of this discussion.

Sincerely,

Comment 29

From: [redacted]
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Public Comment-Army Corps Harbor Deepening Project
Date: Monday, September 17, 2018 5:02:32 PM

Dear Col. Jolly,

I am officially providing my feedback on the Mobile Harbor Deepening Project. I support the organizations of the Alabama Coastal Foundation, Mobile Baykeeper, and the Mobile Environmental Justice Action Coalition (MEJAC). I recommend their comment letters be considered carefully and hope to be informed of the responses related to those concerns and input.

It is critical to be able to mitigate any potential impacts that could result from this project if it is to proceed. With the loss of seagrass and oyster beds in the bay and the scientific evidence to support this fact, it is of utmost importance to be aware of any impacts upon these species and beyond. If there are any negative impacts identified after this project has been completed, I recommend the public will have the opportunity to learn about the issues and have it addressed by using best technology and practices available at the time. As for the local human population, especially communities in near proximity to the port, such as Africatown, which an increase in port traffic, especially petroleum related trade, can impact people's health. This also includes an increase in truck and train traffic in the area, due to growth at the port of Mobile from the results of the harbor expansion. It is of utmost importance that air quality monitors are placed at the port to begin collecting data currently and moving forward.

Additionally, I support beneficial use of dredged material by placing the dredge material from this project so that it benefits Dauphin Island. I recommend working with the Mayor, Town Council, Park and Beach Board, and residents of Dauphin Island to ensure that the placement is making a positive impact.

I appreciate the opportunity to provide my input and would like to be informed of the responses to those that commented and next steps of the project.

Thank You,

[redacted]
Mobile, AL 36607

Comment 30

From:	Walter Ernest
To:	Mobile Harbor GRR
Cc:	Mobile Harbor GRR; wernest@pelicancoastconservancy.org
Subject:	[Non-DoD Source] Pelican Coast Conservancy public comments
Date:	Monday, September 17, 2018 4:58:00 PM
Attachments:	17SEP18USCEMDMSCPC.pdf Walter C Ernest IV.vcf

To whom it may concern;

I am attaching a letter of public comment from the Pelican Coast Conservancy.

Yours truly,

Walter C. Ernest IV

PELICAN COAST CONSERVANCY

Office
403 Conti Street
Mobile, Alabama 36602

Staff
Robert E. Keller, Ph.D.
Chief Executive Officer
Walter C. Ernest IV
Director of Operations
Patrick D. Doran
Conservation Technician

September 17, 2018

Colonel Sebastien Joly
U.S. Army Corp of Engineers
Attn: PD-EC
109 St. Joseph Street
Mobile, Al 36602

Re: Mobile Harbor Draft Integrated Reevaluation Report (GRR) with Supplemental Environmental Impact Statement (SEIS) Public Comment Period.

Dear Colonel Joly,

I am writing this letter on behalf of the Pelican Coast Conservancy. (PCC). The Pelican Coast Conservancy is a conservation organization whose mission is to provide 21st century solutions and sound scientific applications for conservation of critical natural resources in the face of a changing climate focusing on environmental restoration, preservation, and conservation efforts throughout the Gulf Coast region with specific utilization of geographic information system applications in land conservation, ecosystem services, carbon sequestration and conservation biology.

The PCC recognizes the economic importance of a deepened Mobile Harbor and completion of the channel widening and turning basin modification. We would like to suggest several environmental concerns that this project should address. The draft GRR and SEIS do not identify any forms of mitigation to compensate for a decline in water quality, impact to benthic or macroinvertibrates, wetlands, sav, oysters, and fish. The protection and management of our natural resources play an important role in the recreational and commercial fisheries industry in the state of Alabama. A project of this size should incorporate any type of impacts that could result from the proposed Mobile Harbor dredging activities in the bay. The term minimal or no significant impact is a very broad statement. This statement makes it very hard to determine the potential adverse effects of a large scale project like the proposed Mobile Harbor deepening, channel widening, and turning basin modification.

On another note, The PCC would encourage the beneficial use of suitable dredge spoils utilized as a form of beach renourishment for the barrier island of Dauphin Island Alabama.

I would like to thank the Mobile District for conducting informational sessions for the environmental community. These educational meetings were very informative. Please, do not hesitate to contact me if I can be of any assistance.

Working for natural resource conservation,

Walter C. Ernest IV

Comment 31

From: MEJAC
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Public Comment for Draft GRR/SEIS
Date: Monday, September 17, 2018 4:55:26 PM
Attachments: MEJAC public comment for Draft GRRSEIS signed.pdf

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USACE:

Please find MEJAC's public comment for the Draft GRR/SEIS study attached as a PDF. It is also inline attached below my signature.

Please acknowledge upon receipt.

Thank you! Chat soon!

--
Ramsey Sprague
President, Mobile Environmental Justice Action Coalition
[redacted]@gmail.com>

###

September 17, 2018

U.S. Army Corps of Engineers

ATTN: PD-F

P.O. Box 2288

Mobile, AL 36628

USACE:

Per request, our comments and concerns contained herein are designed to be as direct as possible. Responses referencing sections (i.e. 2.4.1) of our comments and questions would be appreciated.

1. The numbering schemes in the Draft GRR/SEIS seem worryingly inconsistent for many sections. For instance, in the draft GRR/SEIS, Section 6.1 is attributed to both “Cumulative Impacts” and “Public Engagement”. In the Environmental Appendices, some sections seemingly misattribute their Appendix assignment, affecting page number identification, and as such, MEJAC will try to describe specific passages of concern to the best of our ability.

2. AIR QUALITY:

1. On page 4-46 of Environmental Appendix C section 4.7.11 Air Quality, we understand that “incremental effects” are to be considered in the Cumulative Impact assessment, but the actual calculations of what these are appear to be missing. Would USACE please provide the detailed air emission calculations that decided that “the incremental contribution from implementation of the TSP combined with the past, present, and reasonable foreseeable future projects, would not result in significant impacts within the ROI”?

2. On page 2-9 of Environmental Appendix C & page D-18 of Environmental Appendix C/”D” Attachments C-3, would USACE please elaborate on why “the future emission trends predicted by the Charleston Harbor Navigation Improvement Project. . . [are] used as the reference in discussing potential emission impacts as a result of proposed action in the port”?

3. On page D-23 of Environmental Appendix C/”D”, USACE asserts the decision to base the “Projected Changes in 2035 Emissions under Channel Deepening Alternative” on Charleston Harbor Navigation Improvement Project (CHNIP) findings for the Charleston area air quality impacts. Unfortunately, the two separate ports are not compared in any meaningful way in the Draft GRR/SEIS for the public to understand USACE's logic. It is simply asserted that there exists a “given” similarity. Would USACE please elaborate on the many similarities it sees and also any key differences that may support or challenge the assumption of analogous data sets?

4. According to Page 15, Air Emissions Inventory, Appendix D, Charleston Harbor Post 45, Charleston South Carolina, Final Feasibility Report and Environmental Impact Study, retrieved from Blockedhttp://www.sac.usace.army.mil/Portals/43/docs/civilworks/post45/mainreport/Appendix%20N %20-%20Air%20Emission%20Inventory.pdf, the CHNIP included non-South Carolina State Port Authority (SCSPA) terminal, private port terminal, contributions to regional air quality in its calculations.

1. Did the Mobile Harbor Expansion GRR/SEIS do that as well? Please elaborate on USACE's reasoning as to why or why not.

2. Is the lack of this kind of comprehensive and (in MEJAC's opinion) reasonable analysis an explanation for why the CHNIP Air Emissions Inventory is almost three times as large as the corresponding MHE GRR/SEIS Air Quality Analysis despite the SCSPA facilities handling half of the cargo tonnage as ASPA facilities?

3. Would USACE please elaborate on why this apparent discrepancy should be justified as a “given”?

4. In MEJAC's original scoping letter from In its calculations of future air quality impacts,

5. On page 18 of Environmental Appendix C/”D”, USACE asserts, “the major stationary source definition of 250 tons. . . [was] selected as a comparable project-level significant impact threshold for this SEIS”.

1. Did USACE anticipate that ASPA's actual contribution would be higher or lower?

2. Was 250 tons chosen to simplify the air quality impact considerations in place of providing a comprehensive assessment of both ASPA and non-ASPA terminal contributions to regional air quality, like how the CHNIP did with SCSPA and non-SCSPA terminal contributions to regional air quality?

6. According to the USACE Waterborne Commerce Statistics Center as compiled by the American Association of Port Authorities and retrieved from <aapa.files.cms-plus.com/Statistics/2016%20U.S.%20PORT%20RANKINGS%20BY%20CARGO%20TONNAGE.xlsx>, ASPA handles roughly twice SCSPA's total cargo tonnage.

1. In selecting the CHNIP as a guiding air quality baseline for TSP air quality impacts did USACE consider that the SCSPA facilities rank as the 29th largest port in the US while the ASPA facilities rank at 10th in terms of cargo tonnage in 2016 according to the USACE?

2. Would USACE please elaborate about how the differences in tonnage were factored into the Draft GRR/SEIS findings of net decreases in all NAAQS criteria air pollutants?

3. ENVIRONMENTAL JUSTICE:

1. On page 2-152 of Environmental Appendix C, USACE asserts, “Special notices of public meetings were mailed (and emailed) to various neighborhood associations, City Planners, Municipalities, Churches, Community Centers, Chapters of the National Association for the Advancement of Colored People, etc. to obtain feedback from groups and individuals with environmental justice-related concerns”, but Mobile County NAACP Unit #5044 President David Smith is certain that his Unit received no such invitation for participation or outreach purposes. Examination of the Unit's contact email address shows no such record of contact. MEJAC does notice that this precise paragraph appears to be lifted almost verbatim in its entirety minus its quantitative assertion from the CHNIP, which reads on page 2-131, “Over 150 special notices of public meetings were mailed to various neighborhood associations, City Planners, Municipalities, Churches, Community Centers, Chapters of the National Association for the Advancement of Colored People, etc. to obtain feedback from groups and individuals with EJ-related concerns.” Would the USACE please provide their documentation of all outreach efforts to the Mobile County NAACP Unit #5044 and other southwest Alabama regional NAACP Units?

2. Also on Page 2-152 of Environmental Appendix C, MEJAC suggests that the paragraph reading “In an effort to assure opportunities for environmental justice populations to provide input to the NEPA process, workshop meetings were held at the James Seals Community Center located in the Africatown Neighborhood and other communities. Workshops provide a forum to explain the project and its implications, answer questions, listen to concerns, and gain an understanding of neighborhood issues.” should be corrected to reflect that the community center at which an environmental justice focus group workshop was held was actually the Robert Hope Community Center. The James Seals Community Center is in the Down the Bay community.

3. And again on page 2-152 of Environmental Appendix C, USACE acknowledges solicitation of data regarding the rates of subsistence fisherfolk in the ROI. MEJAC wishes to praise these efforts and looks forward to both greater illumination on the subject and, should USACE feel it necessary, an acknowledgement of a data gap with respect to these vulnerable populations in our region.

4. FOCUS GROUP MEETINGS:

1. On page 6-18, Section 6.1.5 of GRR/SEIS Environmental Compliance, a December 13, 2017 meeting with “Local Environmental NGO's” is identified to have taken place at the USACE Mobile District office. Would USACE please elaborate on why MEJAC, a 5 year old environmental grassroots 501c3 nonprofit which had by that point already identified itself as a very engaged environmental stakeholder group, was not invited to participate in this meeting?

2. In reflecting upon USACE's acknowledged environmental justice communities of concern from Figure 2-42 on page 2-151 of Environmental Appendix C, MEJAC is concerned that USACE did not attempt consultation with communities along the Dauphin Island Parkway corridor south of I-10. Understanding USACE's assertions on public participation outreach from page 2-152 of Environmental Appendix C, could USACE please provide documentation of outreach efforts to community leadership or community action groups from that part of our community?

3. It is MEJAC's understanding of an environmental justice outreach liaison having been identified at one point by the Project Delivery Team to help consult upon and develop its environmental justice outreach strategy. MEJAC is concerned that by scuttling this position may have negatively affected the environmental justice consultation process. Would USACE please explain what happened with this position and why this personnel was ultimately removed from their assignments and never replaced with another member of the Mobile region's environmental justice community leadership or seemingly anybody at all?

4. MEJAC believes that USACE owes a more robust response to the concerns raised by individual representing environmental justice communities of concern in the GRR/SEIS focus group meetings.

1. In the Africatown EJ focus group, USACE asserted there would be “three air quality monitoring studies”. Would USACE please identify what these three air quality monitoring studies consisted of?

2. Would USACE please make some effort to elaborate on why TSP air quality impacts with respect to increased commodity traffic collateral emissions (i.e. hazardous petrochemical storage tank vapors, coal dust, diesel engine soot, etc.) were excluded from mitigation?

1. Are these also assumed simply to have net reductions in accordance with USACE's assertion that GRR/SEIS is analogous to CHNIP?

3. Will USACE conduct follow up environmental justice focus group meetings to better facilitate community education about and literacy of the GRR/SEIS findings?

5. CULTURAL AND HISTORIC RESOURCES

1. On page 2-112, Section 2.16.2 History of the Mobile Bay Area of Environmental Appendix C addresses the history of the “Clotilde” slaveship schooner that brought the founders of the present-day Africatown community to North America from Africa. MEJAC appreciates this section having been included. The opening statement, however, is somewhat confused with the double-negative statement [emphasis added], “Although the location of this ship wreck is still unknown, the historical record does not indicate that this ship wreck is not located adjacent to or within the APE of the proposed Mobile Harbor modification area. However, due to the significance of the history of the slave ship Clotilde is an important chapter in the history of Mobile Bay and the Mobile Delta. As such, it is included in this context.” The context of the paragraph would suggest the opening sentence be revised to reflect its intent without the use of double negatives.

2. On Page 2-114 paragraph 5, USACE states, “By Lewis’ account, Tarkar West Africans asked to be repatriated, but were denied.” However, the reliance upon “Tarkar” as a scholarly tribal identifier has been challenged by historian Sylviane A. Diouf who painstakingly clarifies in her watershed tome “Dreams of Africa in Alabama” that there is not an African ethnicity known as “Tarkar” (pp 37, 39, 227, 231, 246 of Dreams.., Diouf). MEJAC recommends dropping the dubious ethnic identifier if for no other reason than that the shipmates came from a wide region and represented many West African ethnicities – unless USACE can identify a primary source material that contradicts Dr. Diouf.

6. GENERAL

1. Did USACE calculations of the growth in containerized chemical transport sector factor in potential traffic impacts upon the Africatown community with respect to containerized chemical tanker cleaning facilities located in the neighborhood on Telegraph Rd? Would USACE please elaborate on its reasonings?

2. Generally, MEJAC believes it to be an abrogation of the Corp's environmental justice obligations to project increases of truck and train traffic as much as 25% through transportation corridors in clearly identifiable environmental justice communities of concern and for USACE not to identify any mitigation for the increases in diesel combustion pollution. Would USACE please elaborate on why there is no response from USACE with respect to mitigation of these impacts?

Thank you for your consideration. MEJAC and our community partners looks forward to USACE's response.

Sincerely,

Ramsey Sprague

President, Mobile Environmental Justice Action Coalition

Mobile Environmental Justice Action Coalition

(251) 308-5872
InfoMEJAC@gmail.com
MEJAC.wordpress.com

P.O. Box 717
Mobile, Alabama
36601-0717

September 17, 2018

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

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Thank you for your consideration. MEJAC and our community partners looks forward to USACE's response.

Sincerely,

Ramsey Sprague
President, Mobile Environmental Justice Action Coalition

Comment 32

From:	Mark Berte
To:	Mobile Harbor GRR
Cc:	Parson, Larry E CIV CESAM CESAD (US); Newell, David P CIV CESAM CESAD (US); McDonald, Justin S CIV USARMY CESAM (US)
Subject:	[Non-DoD Source] ACF Comment Letter for the Draft GRR-SEIS
Date:	Monday, September 17, 2018 4:52:03 PM
Attachments:	2018 ACF Draft GRR-SEIS Comment Letter.pdf

Please see the attached.

Thank you again for the opportunity for the Alabama Coastal Foundation to provide feedback.

If you have any questions or need additional information, please do not hesitate to let me know.

Best,
Mark

Mark Berte, Executive Director
Alabama Coastal Foundation
250 Conti Street, 2nd Floor
PO Box 1073
Mobile, AL 36633
(251) 990-6002 Office
(251) 402-3936 Cell
mberte@joinACF.org
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September 17, 2018

Colonel Sebastien P. Joly
U.S. Army Corps of Engineers Mobile District
Attention: PD-EC
109 Saint Joseph Street
Mobile, AL 36602
MobileHarborGRR@usace.army.mil

Dear Colonel Joly,

On behalf of the Alabama Coastal Foundation Board of Directors, members, and staff, I thank you for the opportunity to comment on the Mobile Harbor Draft General Reevaluation Report with Supplemental Environmental Impact Statement (Draft GRR/SEIS). You and your staff have invested much time and effort into that document and the Alabama Coastal Foundation (ACF) is providing this feedback for your consideration as you move closer to your decision milestone part of this process. This is a major economic opportunity for the state and, being a statewide organization, ACF would like to ensure that those economic gains are congruent with our precious environment.

ACF's mission is to improve and protect Alabama's coastal environment through cooperation, education, and participation. We have been in service to that mission for 25 years and use a science-based approach to address practical solutions in a non-adversarial manner. In an attempt to organize ACF's comments about finalizing the GRR/SEIS to be constructive and helpful, I am framing them in three phases: Prior to, During, and Post implementation. Because we operate using an "inclusive environmental stewardship" philosophy, we not only provide these comments, but also offer our time and assistance to bring any interested stakeholder to the table regarding this work.

Prior to Implementation:

1. Prior to finalizing the GRR/SEIS, I request that your staff study and make any necessary modifications to the water quality modeling analysis based on the following recently published article in *Estuaries and Coasts*: https://doi.org/10.1007/s12237-018-0379-6 As you will see, there were potential impacts to currents, exchange flows, and salinity due to a recent ship channel deepening which should be taken into consideration for our local project.
2. In addition, we appreciate your expanding the oyster larvae distribution model (from just Brookley) so it encompasses other important reefs throughout the bay because the upper part of the bay is not the only impacted area for the proposed channel deepening and widening. As discussed during several meetings, using an average "high/flood" regime and an average "low/drought" year will allow the public to have better informed projections on the potential impacts to all biota.

Prior to Implementation (CONTINUED):

3. Likewise, we strongly encourage using pressure gauges south of Gaillard Island to collect accurate data for the middle and lower end of the channel. As you know, ships travel faster in the lower half of the channel so collecting and modeling how those higher speeds affect the assessment areas (SAVs, oysters, fish, etc.) is important to do. When conducting that new ship wake modeling, I request that your staff slightly alter the upper bay analysis as well to study fully loaded vessels in the future because that is part of the justification for the reduction of vessels. Slowing down vessels that cause wakes not only will protect our shorelines, but will also help reduce greenhouse gas emissions. There are effective vessel speed reduction programs that may help to address the current situation as well as any future issues from an expansion. ACF would be honored to meet with anyone to discuss that further to develop a local solution to our current ship wake problem as well as develop a plan to address any future issues due to an expansion.
4. Finally, if the projected decrease in the future number of vessels actually increases after the ship channel has been expanded, please model what threshold numbers it would take to have a negative impact on the various areas that have been assessed (wetlands, submerged aquatic vegetation, benthic invertebrates, oysters, and fish) so the public will have that information available in the future.

During Implementation:

5. If the project moves forward, the Alabama Coastal Foundation knows that the Corps will employ adaptive management to address any issues as it relates to implementation. To help provide sound and accurate information to base your adaptive management decisions, we recommend that the Corps have independent monitoring of the implementation to help the public understand how the plan is being brought into reality.
6. In addition, we appreciate the Corps for placing any suitable material from the new work to benefit Dauphin Island. We recommend working with the Mayor, Town Council, Park and Beach Board, and residents of Dauphin Island to ensure that the placement is making a positive impact.

Post Implementation:

7. Once the channel expansion work has been completed, the Alabama Coastal Foundation recommends funding an independent consultant to work the Corps to monitor the project for twenty (20) years with a stipulation that annual reports be provided to the public. If there are any negative impacts identified during that window, the public will have the opportunity to learn about it and address it using the best technology and practices available at the time.

I thank you once again for your consideration of our comments. If you have any questions or need any additional information, please do not hesitate to let me know.

Sincerely,

Mark Berte
Executive Director
Alabama Coastal Foundation
mberte@joinACF.org

Comment 33

From: [redacted] bellsouth.net
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Additional Comments to Draft GRR/SEIS
Date: Monday, September 17, 2018 4:50:52 PM

As one of the property owners [redacted] present in his comments:

"Dr. Byrnes stated that it would be more beneficial to Dauphin Island shoreline restoration efforts to place dredged sediment from the bar channel, currently deposited at the disposal site, closer to the island for more direct incorporation into the littoral transport system. Although dredged sediment placed in the Sand Island Beneficial Use Area is expected to be transported toward and onto Dauphin Island, Dr. Byrnes indicated that it may take decades for sufficient quantities of recently dredged sand to make its way to the island from the current disposal

This Pelican Island drone video flyover <Blockedhttps://vimeo.com/216057037> (Blockedhttps://vimeo.com/216057037 <Blockedhttps://vimeo.com/216057037>) provides information to help pinpoint to a location to deposit dredged sand due to the Maintenance Dredging of the Mobile Ship Channel. This location would be consistent with Dr. Byrnes' updated conclusion that resulted from Mr. Neal's conversation with Dr. Mark Byrnes.

Sincerely,

[redacted]

Comment 34

From:	Cade Kistler
To:	Newell, David P CIV CESAM CESAD (US)
Subject:	[Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date:	Monday, September 17, 2018 4:45:39 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Cade Kistler
ckistler@mobilebaykeeper.org
19655 County Rd 9

Silverhill, Alabama 36576

<Blockedhttps://u1584542.ct.sendgrid net/mpss/o/BQE/ni0YAA/t.2ky/QtycchlVT1q4wXqLCaeNWA/o.gif>

Comment 35

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 4:44:56 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Valerie Longa

[redacted]

Mobile, Alabama 36607

<Blockedhttps://u1584542.ct.sendgrid net/mpss/o/CwE/ni0YAA/t.2ky/Wrd2R5MoRdGwV6xreCbS8w/o.gif>

Comment 36

From: Christian Wagley
To: Mobile Harbor GRR
Subject: [Non-DoD Source] comments on Mobile Harbor Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement
Date: Monday, September 17, 2018 4:19:21 PM
Attachments: Mobile Harbor comment letter to ACOE.pdf

Please accept the attached comment letter Thank you!

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CHRISTIAN WAGLEY Coastal Organizer, Florida-Alabama

850 687 9968

christian@healthygulf org <mailto christian@healthygulf org>

P O Box 13412

Pensacola, FL 32591

My Blog Articles <Blockedhttp://healthygulf org/blog/posts-by-author/131>

UNITED FOR A HEALTHY GULF

GULF RESTORATION NETWORK
healthygulf.org

UNITED FOR A HEALTHY GULF
P.O. Box 13412, Pensacola, FL 32591
Phone: 850.687.9968

September 17, 2018

COL Sebastien P. Joly, District Commander
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Sent via email: MobileHarborGRR@usace.army.mil

RE: Mobile Harbor Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement

Dear Col. Joly:

On behalf of our members and supporters in Alabama and throughout the Gulf coast, we wish to comment on the Mobile Harbor Draft Integrated General Reevaluation Report/ Supplemental Environmental Impact Statement (Draft GRR/SEIS). We recognize and appreciate the comprehensive nature of the Draft GRR/SEIS, which is warranted by the massive scale of this project and its potential impacts. However, we have a number of concerns about deficiencies in the Draft GRR/SEIS, and propose opportunities for improvements that will help to better protect fish, aquatic life, water quality, and adjacent communities.

1. ***The Corps should include a full accounting of how to lessen impacts to environmental justice communities.***

The Draft GRR/SEIS shows an increase in truck traffic by 25% and a 2.5% increase in petroleum and hazardous materials transported through communities with a high number of low income and minority residents. The Corps must assess the proportionality of transportation impacts under the executive orders for environmental justice. The Corps needs to show how they propose to reduce these impacts, and mitigate for any future potential impacts

2. The Corps should use more than one year of study as the base for modeling impact.

The Corps used only one-year (2010) as the base for a number of studies including water quality. Results from the water quality study were then used to find out how these changes will impact our aquatic life (wetlands, oysters, seagrasses). This is wholly inadequate and could result in underestimating the impacts of the project. The use of at least three-years of data is a more accurate measure, especially in light of the potential impacts to endangered turtles and other sea life.

3. The Corps must evalue "worst case" sea level rise impacts.

Half a meter of sea level rise is insufficient, and well below the 2-meter-by-2100 cases contemplated by the Corps for other projects. Neglecting to analyze the foreseeable impacts of sea level rise invalidates the assessment of impacts to aquatic life, as well as the assessment of sediment transport and impacts to endangered species.

GULF RESTORATION NETWORK
healthygulf.org

UNITED FOR A HEALTHY GULF
P.O. Box 13412, Pensacola, FL 32591
Phone: 850.687.9968

4. The Corps should evaluate the indirect impacts of the project.

The increased depth of the channel is likely to bring increased use and growth in the Port of Mobile. This could lead to new development and expanded facilities that could have indirect impacts on natural resources.

This DEIS should include the impacts of indirect and secondary impacts due to induced development, increased traffic, higher chance of chemical spills, etc.

5. The Corps should look more closely at impacts on oysters.

The restoration of historic oyster populations in Mobile Bay is a major focus of Bay recovery efforts. But the Corps' study on how the project will impact oysters is incomplete.

The model showing how young oysters will move around after the channel changes (making sure they don't get flushed out of the bay) only looked at one oyster reef. We strongly suggest the model be run from all reefs.

The Corps also needs to assess how oyster drills will be impacted from the channel. Oyster drills favor the higher salinities forecast from channel expansion, and so are likely to expand their range. This could impact the survival of existing and future restored oyster reefs.

6. The Corps should further investigate impacts to natural habitats, aquatic life, and wildlife.

With water quality studies limited to one year, impacts to natural habitats such as wetlands and seagrasses are likely underestimated. Identified impacts to seagrasses have not been further assessed as to impact on seagrass-dependent species such as the West Indian Manatee and waterfowl. Forecast increases in salinity from the projects could impact fish and other marine life and should be assessed more completely. With a lack of sea level-rise assessment and sediment transport assessment, impacts to endangered turtles that use island beaches are not fully assessed.

7. The Corps should ensure that dredged materials are fully utilized for beneficial use, and that dredging impacts are considered comprehensively.

Dauphin Island has continued to erode despite the use of the Sand Island Beneficial Use Area (SIBUA). The Corps should address the low replenish rates in which relatively little of the deposited material here is accreting on Dauphin Island beaches. These beaches are habitat for endangered sea turtles.

Furthermore, rather than considering each channel maintenance project/segment of the Mobile Harbor separately, we recommend that a management plan be created to fully assess and consider together the multiple proposed projects in the Mobile Bay area. Such coordination and assessment across multiple projects will more fully capture potential impacts and allow for their minimization and avoidance.

GULF RESTORATION NETWORK
healthygulf.org

UNITED FOR A HEALTHY GULF
P.O. Box 13412, Pensacola, FL 32591
Phone: 850.687.9968

We look forward to an updated Draft GRR/SEIS that more fully considers and protects the people and natural resources living in and along the Mobile Harbor. Thank you for considering our comments.

Sincerely,

Christian Wagley
Coastal organizer, Florida - Alabama 850-687-9968

Comment 37

From: Fowler, James
To: Mobile Harbor GRR
Cc: [redacted]
Subject: [Non-DoD Source] Endorsement - Mobile Shipping Channel; Angus R. Cooper III, Cooper/T. Smith Corp.
Date: Monday, September 17, 2018 4:16:12 PM
Attachments: MobileShippingChannel_USACEEndorementLetter_AngusRCooperIII_2018Sept7.pdf

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Good afternoon Ms. Jacobson,

Please accept the attached letter of endorsement from Mr. Angus R. Cooper III, President, Cooper/T. Smith Corporation. If we can answer any questions or provide any clarify, please do not hesitate to contact us.

Sincerely,

-JCF

James C. Fowler

Assistant Vice President

Cooper/T. Smith Corporation

118 North Royal Street

Mobile, AL 36602

(251) 431-6100 (Office)

(251) 415-3054 (Fax)

Cooper/T. Smith Corporation

September 17, 2018

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

Dear Colonel Joly:

I write you 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.

Commerce for 38 states stands at a crossroads, creating uncertainty for thousands of companies across the county. The Port of Mobile is one of just two deep draft ports with direct connectivity to our nation's 12,000-mile inland waterway network. The modernizing of the Port of Mobile is not about one port community, one state, or one region of our country. Instead, it's about securing the 604 million tons of waterborne cargo that is moved on our nation's inland waterways and securing the future of trade for our country.

Since 1905, Cooper/T. Smith Corporation, a fourth generation family owned enterprise, has employed thousands of families and moved hundreds of thousands of tons of bulk and breakbulk cargo through the Port of Mobile. Furthermore, we serve as the premier transportation service provider for cargo moved along the Tennessee-Tombigbee Waterway and for deep draft vessels being docked, undocked, and escorted in the Ports of Mobile and Theodore. Our shipyard and fabrication companies are building U.S. flagged vessels to compete in today's world economy.

In preparation for the expansion of the Panama Canal and the modernizing of the Port of Mobile, our company has invested millions in the construction of our industry's most powerful and technologically advanced ship assist tugboats, and in state-of-the-art training of our mariners. Thanks to that investment, our port stands ready today to handle our economy's largest ships.

Therefore, for the future economy of the 38 states connected to the Port of Mobile and the millions of families affected by its commerce, I strongly encourage the U.S. Army Corps of Engineers to issue a Record of Decision and immediately proceed with the deepening and widening of the Mobile Harbor Channel.

Sincerely,

Angus R. Cooper III
President, Cooper/T. Smith Corporation

118 North Royal Street, Post Office Box 1566, Mobile, Alabama 36633
(251) 431-6100, Fax (251) 415-3054, www.coopertsmith.com

Comment 38

From:	Tom Herder
To:	Mobile Harbor GRR
Cc:	[redacted] [redacted]
Subject:	[Non-DoD Source] Mobile Bay National Estuary Program Comments regarding the Mobile Harbor, Mobile, AL Draft GRR/SEIS
Date:	Monday, September 17, 2018 4:09:40 PM
Attachments:	MBNEPLetterOfCommentOnUSACE_DraftGRR_SEIS.pdf

Jenny,

I submit these comments on behalf of Mobile Bay National Estuary Program Director Roberta Swann. We appreciate you accepting and considering them.

Thank you.

Tom

Tom Herder

Watershed Protection Coordinator

Mobile Bay National Estuary Program

118 N. Royal St., Suite 601

Mobile, AL 36602

Desk 251-380-7937

Cell 251-648-3139

therder@mobilebaynep.com <mailto:therder@mobilebaynep.com>

MOBILE BAY NATIONAL ESTUARY PROGRAM

September 17, 2018

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

Re: MBNEP Comments on Mobile Harbor, Mobile Alabama Draft Integrated General Revaluation Report with Supplemental Environmental Impact Statement, Mobile County, AL (Draft GRR/SEIS)

The Mobile Bay National Estuary Program (MBNEP) exists to facilitate a consensus-building and collaborative decision-making process to protect and restore the water quality and ecological integrity of the estuarine waters of Alabama. Accordingly, we offer comments on the Tentatively-Selected Plan to deepen the existing Bar, Bay, and River channels by five feet; incorporate minor bend easings in the Bar Channel approach to the Bay Channel; widen the Bay channel from 400 to 500 feet for three nautical miles to facilitate passing; and expand the Choctaw Pass Turning Basin by 250 feet to the south.

In developing the Draft GRR/SEIS, the U. S. Army Corps of Engineers-Mobile District (Corps) used extensive modeling to determine no significant changes to water quality, fisheries habitat, wave climate, sediment transport or erosion, sediment quality, noise, air quality, or cultural resource status related to the Tentatively-Selected Plan. We recognize virtually all Corps conclusions were reached through modeling, and in some cases limited baseline data were used to drive models. With respect for the science used to generate conclusions reached by the Corps, the MBNEP is fully aware that model outputs do not always reliably predict natural processes. To ensure this project does not create unintended consequences once implemented, the MBNEP recommends long-term, comprehensive monitoring be included as a project component to ensure potential impacts are intercepted as quickly as possible to facilitate rapid mitigation/adaptation.

In 2015, MBNEP's Science Advisory Committee, comprising scientists, consultant experts, and government agency personnel concerned with developing mechanisms for measuring ecosystem health, developed the *Mobile Bay Subwatershed Restoration Monitoring Framework* (attached). It includes the best available practices necessary to identify changes, determine indicator response, and ascertain long-term status of biological condition in the subwatersheds and greater Watershed of Mobile Bay. This framework, derived from available publications and references and prescribing sampling to determine sedimentation and flow, water quality, and habitat condition, recommends all monitoring efforts begin at least one year prior to implementation to establish baselines. With Corps expecting rigorous monitoring of individual projects of much smaller scope, we recommend the length of monitoring post-implementation of this landscape-scale ecosystem modification project be conducted for a period not less than 10 years using Framework-prescribed protocols where possible and continued monitoring of attributes addressed in the Draft GRR/SEIS but not in the Framework.

While the MBNEP appreciates the proposed project is necessary to maintain the long-term viability of the Port of Mobile, ensuring a robust and resilient economy for the coast and the State of Alabama, a comprehensive monitoring program as a component to the Tentatively-Selected Plan is a necessary and prudent safeguard to protect beaches and shorelines, fishery resources, resilience, and water quality valued by residents of coastal Alabama.

Sincerely,

Roberta Swann
Director

118 North Royal St. • Suite 601 • Mobile, Alabama 36602 • (251) 431-6409 • Fax (251) 431-6450 • www.mobilebaynep.com

MOBILE BAY NATIONAL ESTUARY PROGRAM

Mobile Bay Subwatershed Restoration Monitoring Framework

Science Advisory Committee: Monitoring Working Group, 2015

Mobile Bay Subwatershed Restoration Monitoring Framework

Vision: Comprehensive restoration monitoring that enables quantitative assessment of restoration success and assessment of overall ecosystem function

Goals: To answer three questions:

1. What, if any, changes are there in the water quality, sedimentation, flow, biology, and habitat quantity and quality as a result of restoration efforts and management plan implementation?
2. How are potential ecosystem health indicators related to stressors and ecosystem functions/services?
3. What is the long-term status of the biological condition in the Mobile Bay watershed?

▾ ▾ ▾

COMMENTS ON THE PROCESS AND RECOMMENDATIONS

This framework outlines recommended monitoring procedures in relation to watershed restoration and watershed management plan implementation to understand ensuing impacts on the entire subwatershed. Development and implementation of a standardized monitoring protocol across the larger Mobile Bay watershed in all subwatersheds is critical for understanding the current health and function of the Mobile Bay Estuary and any shifts due to restoration. Recognizing the existing gap and need for such a plan in Mobile and Baldwin Counties the Mobile Bay National Estuary Program (MBNEP) tasked their Science Advisory Committee with the development of a comprehensive monitoring framework. This plan contributes to the MBNEP's Five Year Comprehensive Conservation Management Plan and can be integrated with larger monitoring networks being developed by the Gulf of Mexico Alliance, the Gulf of Mexico Coastal Ocean Observing System, and other partners.

This plan was developed by a working group of the Mobile Bay National Estuary Program Science Advisory Committee (SAC) and then approved by the rest of the SAC. These are thought to be the best available practices necessary to answer the questions laid forth in our goals. Recommendations of best practices reflect the group's professional opinion.

Desired Outcomes:

The recommended protocols will result in standardized data collection for restoration efforts throughout Mobile and Baldwin Counties, allowing comparisons both temporally and spatially, improved decision making, and data preservation for future use. We recommend the monitoring program outlined within this framework be incorporated into all watershed management plans and restoration

proposals and contracts. Ensuring utilization of this framework uniformly across all restorations and watersheds in Mobile and Baldwin counties will allow an interconnected network of data that can improve understanding of the processes of Mobile Bay as a whole. This will also serve as a model for future efforts across the Gulf Coast in developing larger, regional networks, including those envisioned by the Gulf of Mexico Alliance, the National Oceanic and Atmospheric Administration, and the Gulf of Mexico Coastal Ocean Observing System. To achieve these goals we recommend:

1) The adoption of this framework in every restoration request for proposals (RFP) and restoration contracts for Mobile and Baldwin County
2) Long-term monitoring based on this framework in every watershed management plan for all watersheds in Mobile and Baldwin County
3) Data synthesis to develop tools and products for assessment of restoration success, adaptive resource management, and baseline establishment
4) Active engagement with county and municipality planners, resource managers, agencies working within the watershed, and other stakeholders to encourage implementation of monitoring and broad application of tools developed from data synthesis.

Efficiency:

These recommendations are not all inexpensive or new. Prior to design and implementation in specific watersheds we highly encourage an inventory of required and ongoing monitoring within the watershed to assess what resources are available and what can be leveraged. For example municipalities, businesses, and state and local agencies frequently must monitor to some degree to meet Clean Water Act MS4 requirements. Interagency cooperation will avoid redundancy and provide maximum success for the minimum investment for all partners.

Data Utilization and Storage:

In addition to the monitoring scheme laid forth here, we highly recommend implementation of a feedback mechanism in both developing and existing watershed management plans (WMP). Collection of data is not enough; synthesis and analysis is required to determine if restoration and management practices are successful. While this implementation will be different for each watershed, a set of essential minimum requirements need to be met. It is critical that a committee be composed of representatives from:

- The drafter of the WMP – to navigate any changes necessary to the plan
- The municipalities and counties within the watershed – to ensure buy in to the adaptive management process and to supplement their efforts
- Agencies that will derive use from these data – to encourage focus on the watershed and implementation of necessary regulation or status change (i.e. EPA or FDA)
- Those performing the restoration – to evaluate progress of the restoration and give context to observed outcomes

- The Mobile Bay National Estuary Program – to coordinate effort and outcomes between surrounding watersheds and leverage existing partnerships
- Expert researchers – to perform analyses and interpret results

It is imperative that this committee be afforded the power needed to influence or direct the actions in the WMP based on monitoring results. Suggestions include: annual review and restructuring of the WMP based on monitoring data, review of the effectiveness of the restoration, a mechanism to address, edit, or introduce local policy based on baseline and restoration results, and implement adaptive management measures.

We also recommend that these data be housed within a regional partner to facilitate consistency, development of metadata, and promote public access to the data. Establishing a regional data repository will encourage integration within larger monitoring programs, expanding the context of the restoration effort and subsequent monitoring. This will also promote more research and data analysis, thereby improving our understanding of system function and management capabilities. As part of these recommendations metadata should be in ISO 19115-2 standard format. Utilizing a nationally recognized metadata standard will encourage data utilization across Mobile Bay and within larger regional data analyses and inventories.

Incorporating historical datasets to obtain a longer time series for analysis of system status and trends is encouraged; however, such datasets should be utilized in context and not applied beyond the scope of the original sampling.

Final Remarks

This document was developed as a framework to guide individual subwatersheds in the Mobile Bay watershed in standardizing their restoration monitoring. This standardization encourages integration of data and assessment of health of the entire Mobile Bay Estuary. Commitment to these protocols ensures relevance of data and increases the capacity of our region to better manage our resources. This sampling regime will develop an understanding of what drives the successes and failures of restoration efforts. Applying this understanding to adaptive watershed management is critical to utilizing our scarce financial and ecological resources efficiently.

▼ ▼ ▼

SAMPLING PROTOCOLS

We recommend that all of these monitoring efforts begin at least one year prior to implementation of restoration efforts to establish baselines. Monitoring should continue after restoration to track both short-term and long-term impacts. The minimum length of monitoring post restoration should be 3-5

years. We strongly recommend, if at all possible, transition of this monitoring into a sustained, long-term program for each subwatershed to continue tracking response to restoration and overall shifts in subwatershed health and function.

Sedimentation and Flow

Reducing sedimentation and flow are often at the core of restoration aims. If the primary goal of the restoration is to reduce sedimentation and flow, we recommend development of performance metrics specific to each restoration project for assessing success. We recommend the following monitoring metrics:

	Timing and Frequency	**Location**	**Methodology**
Erosion Rates	• Begin in Nov/Dec • After every rainfall event ≥ 1 inch • Post catastrophic events related to flow but not precipitation (e.g., dam failure)	• Upstream of restoration • Downstream of restoration • At restoration	*Staley et al., 2006*
Continuous Monitoring - Sondes	Every 15 minutes	• Mouth of all 2nd order streams or strategically important locations • Receiving sub-basin • Prior to and after in-stream retention water bodies (e.g. small lakes or large retention ponds)	• Flow • Turbidity: *EPA, 2012*
Continuous Monitoring – Automatic Water Grabs	• Any rainfall event ≥ 0.1 inch preceded by 72 dry hours • Continue every 15 min there has been no precipitation for 72 hours *Citation: EPA, 1992*	• Mouth of all 2nd order streams or strategically important locations • Receiving sub-basin • Prior to and after in-stream retention water bodies (e.g. small lakes or larger retention ponds)	• Total Suspended Solids • Suspended Sediment Annual Loading: *Cook & Moss, 2008*
Soil/sediment characterization	• Annually, beginning prior to restoration.	• Upstream of restoration • At restoration site • Downstream	• Grain size • Fraction distribution • TOC

		depositional site	
Manual Monitoring – Develop Sediment Transport Model	• After any rainfall event ≥ 1 inch for 12 months	• Upstream of restoration • Downstream of restoration • Mouth of all 2nd order streams or strategically important locations	• *Cohn et al., 1992*
Manual Monitoring – Maintain Sediment Transport Model	• Two rainfall events annually: ○ Moderate flow event ○ High flow event	• Upstream of restoration • Downstream of restoration • Mouth of all 2nd order streams or strategically important locations	• Bed Sediment Transport Rates • Bed Sediment Annual Loading: *Cook & Moss, 2008*

The Geological Survey of Alabama (GSA) has extensive experience and historical data regarding sediment and flow in many of the subwatersheds around Mobile Bay. It is highly recommended to coordinate effort and standard methods with this agency to improve efficiency and standardization.

Water Quality

Improved water quality is desired outcome from all restoration efforts. Given that water quality is a direct link to biological condition and ecosystem health, impacts must be quantified. It is critical to the evaluation of a restoration project to measure baselines and changes of water quality over time. For accurate assessment of water quality baselines and quantified changes in response to restoration we recommend monitoring:

	Timing and Frequency	**Location**	**Method**
Continuous Monitoring – Sondes	Every 15 minutes (to sample first flush)	• Reference site • Upstream from restoration • Downstream from restoration ○ Combine with sediment and flow continuous monitoring • Receiving Sub-basin • In-stream retention water bodies	• Temperature • Dissolved Oxygen • pH • Conductivity • Photosythetically Active Radiation ○ Only in receiving sub-basin • NO3 • CDOM • Turbidity
Continuous Monitoring – Automatic Water	• Any rainfall event ≥ 1 inch • Continue every	• Reference Site • Upstream from restoration • Downstream from	• Nutrients ○ NO3 ○ NH4

Grabs	15 min until it has been dry for 3 days: *EPA, 1992*	restoration ○ Combine with sediment and flow continuous monitoring • Receiving sub-basin • In-stream retention water bodies	○ DON ○ PN ○ PO4 ○ DOP ○ POP ○ *Lehrter et al., 2013* • Total Suspended Solids • Dissolved Organic Carbon • Particulate Organic Carbon *Welschmeyer, 1994*
Manual Sampling – Monthly Water Grabs	Sample based on turnover in the receiving sub-basin	Receiving sub-basin • Determine sampling locations within the sub-basin based on size and dynamics of the system	• Nutrients ○ NO3 ○ NH4 ○ DON ○ PN ○ PO4 ○ DOP ○ POP • Chlorophyll-a • Dissolved Organic Carbon • Particulate Organic Carbon *Welschmeyer, 1994*
Other	• Consider additional 303d issues based on initial screening sampling with subsequent periodic reevaluations for both continuous and manual sampling • Any additional issues specific to a subwatershed should be addressed with a detailed monitoring protocol ▪ Protocols used should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the Mobile Bay Watershed		

Habitats

Habitats are the foundation of an ecosystem; shifts in habitat health and function directly impact the ecological and economic benefits of the watershed. To accurately assess the health of individual habitats we recommend the following monitoring for each habitat:

<u>Submerged Aquatic Vegetation</u>

	Timing and Frequency	**Location**	**Method**

Bed Boundaries	Annually at peak biomass	Receiving sub-basins	Aerial Photography; Tier 1, *Neckles et al., 2012*
Species Composition and Density	Annually at peak biomass	Receiving sub-basins – determine sampling locations depending on the size and dynamics of the system and the SAV beds	Percent Cover & Cores; Tier 2,3, *Neckles et al., 2012*

Wetlands

	Timing and Frequency	**Location**	**Methods**
Acreage*	Annually at peak biomass	• Reference Site • Restoration Site • Downstream of restoration site	Aerial imagery and existing spatial data with field verification. *USACE, 2010*
Floristic Quality Index (FQI)	Annually at peak biomass	• Reference Site • Restoration Site • Downstream of restoration (if applicable)	*Lopez & Fennessy, 2002*
Wetlands Rapid Assessment Protocol (WRAP)	Annually at peak biomass	• Same locations as the FQI	*Miller and Gunsalus, 1999*
Hydrogeomorphic (HGM) Model	Annually at peak biomass	• Receiving sub-basins	*Shafer et al., 2007*

* Mobile and Baldwin Counties will have detailed mapping of critical habitat including wetlands conducted in 2015. It is the recommendation of this team that such mapping occur annually as part of a comprehensive watershed management plan for each sub-watershed. If complete watershed mapping is not scheduled in the year prior to and at least 3 years after restoration then follow this recommendation.

Streams and Riparian Buffers

	Timing and Frequency	**Location**	**Method**
Rapid Stream Assessment for Riparian Buffers	Annually at peak biomass	Entire watershed	• *Barbour et al., 1999* • *Look to leverage effort with ADEM: ADEM conducts these around the state*
Stream Quality Score	Annually, during early spring, prior to adult insect emergence	• 100 m reach segments • Upstream from	• *Barbour et al., 1999* • *Be aware of agriculture, golf*

		restoration or a reference site • At restoration • Downstream from restoration	*courses, and other potential sources of insecticide that could artificially skew results*

Oyster Reefs

	Timing and Frequency	**Location**	**Method**
Reef Areal Dimension	Annually and after events that impact oyster survival (i.e. hurricanes)	Receiving sub-basins	*Bagget et al, 2014*
Reef Height *	Annually and after events that impact oyster survival (i.e. hurricanes)	Reference sites within receiving sub-basins	*Bagget et al, 2014*
Oyster Density	Annually after peak growing season	Receiving sub-basins	*Bagget et al, 2014*
Oyster Size-Frequency Distribution	Annually after peak growing season	Receiving sub-basins	*Bagget et al, 2014*
Other	Coordination with Alabama Department of Conservation and Natural Resources Marine Resources Division (ADCNR MRD) is highly recommended as ADCNR MRD have a long-term oyster data set and expertise in oyster sampling methodologies. Any additional concerns such as HABs or fecal coliforms should be considered and coordination with the Alabama Department of Public Health (ADPH) is highly recommended to reduce redundancy and incorporate experts in sampling and analysis of results. (*National Shellfish Sanitation Program*)		

*Monitoring oyster reef height provides understanding of how upstream or adjacent land-based activities that change rates of sedimentation, dissolved oxygen, or other water column attributes may, in turn, impact the overall function and productivity of reefs (which can change based on vertical distribution). Low height oyster reefs are naturally occurring in and around Mobile Bay, and a low reef height alone is not to be considered a sign of a poorly functioning reef.

Other Foundational Habitats

There are other habitats that may be critical within individual subwatersheds. For each of these habitats we recommend following a protocol based on published and standardized methods that details frequency and location. Protocols used should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the Mobile Bay Watershed

Biological Communities

Biological communities are a critical component of both ecological function and services including fisheries. Many of the native species are captured in the stream and marsh indices; however, specific species and their associated habitats should be considered. Targeted species differ for individual subwatershed. To ensure that no critical species are overlooked the following should be considered in detail for each subwatershed monitoring program:

- Sensitive habitats
    - Determine if there are any habitats (e.g. marine mammal feeding, resting, breeding habitats, nesting bird habitat etc.)
    - Develop a protocol based on published or standardized methods that details frequency and location
        - Developed protocol should be submitted to the MBNEP SAC for integration into this framework to ensure consistency and standardization across the Mobile Bay Watershed
- Invasive Species
    - Develop a protocol based on published and standardized methods that details frequency and location
- Endangered and Threatened Species
    - Determine if there are any endangered or threatened species
    - Develop a protocol based on published methods or standardized methods that details frequency and location

▼ ▼ ▼

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Comment 39

From:	Trevor Parrish
To:	Mobile Harbor GRR
Subject:	[Non-DoD Source] Business Council of Alabama Comments on Port of Mobile
Date:	Monday, September 17, 2018 3:50:42 PM
Attachments:	image002.png image003.png image004.png BCA Comments to Army Corps of Engineers on Mobile Port Expansion.pdf

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Please see the attached comments from the Business Council of Alabama. Please let us know if you have any questions or need any additional information.

Best regards,

Trevor

Trevor W. Parrish

Director of Legislative Policy and Deputy Counsel
Office: 334.240.8773

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BUSINESS COUNCIL
OF ALABAMA

September 17, 2018

SUBMITTED ELECTRONICALLY

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

RE: Draft Mobile Harbor, Mobile, Alabama Integrated General Reevaluation Report with Supplemental Impact Statement

Dear Ms. Jacobson:

This letter is submitted by the Business Council of Alabama (BCA) and its members to support the widening and deepening of the federal navigation channel of the Port of Mobile, which continues to have a tremendously positive impact on our state. The Tentatively Selected Plan (TSP) from the aforementioned report will encourage trade and economic growth while also responsibly managing environmental concerns.

The Business Council of Alabama is a non-partisan, statewide business association representing the interests and concerns of nearly 1 million working Alabamians through its member companies and its partnership with the Chamber of Commerce Association of Alabama. The BCA is Alabama's exclusive affiliate to the U.S. Chamber of Commerce and the National Association of Manufacturers (NAM).

The BCA strongly supports the expansion of the Port of Mobile for the positive impacts such action will have on efficiency and commerce, as well as the economic development boost it will provide to Alabama's vital manufacturing sector. According to the

NAM, Alabama manufacturers employed 262,000 Alabamians in 2016 and increased manufactured goods exports by 52 percent from 2010 to 2016. Additionally, 80.9 percent of companies that exported goods from Alabama in 2014 were small businesses, according to the International Trade Administration. Increasing the trade capacity of Alabama's globally-relevant Port of Mobile will have substantial, lasting positive impacts on Alabama's workers, consumers, business community, and overall economy.

We appreciate your consideration of these comments.

Sincerely,

Mark M. Colson
Senior Vice President of Governmental Affairs
and Chief of Staff

Comment 40

From: Tracy Johnson
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Support for Draft Mobile Harbor
Date: Monday, September 17, 2018 3:34:00 PM
Attachments: image001.png
SKM_C224e18091702350.pdf

Please find attached PowerSouth Energy's letter of support for the Draft Mobile Harbor.

Thank you for your consideration!

Tracy Johnson

770 Washington Avenue, Ste. 170

Montgomery, AL 36104

(o) 334-269-2793 | (c) 334-399-2517

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Horace Horn
VICE PRESIDENT
EXTERNAL AFFAIRS

September 17, 2018

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

RE: Draft Mobile Harbor, Mobile, Alabama Integrated General Reevaluation Report with Supplemental Impact Statement

Dear Ms. Jacobson:

PowerSouth Energy Cooperative is a leading wholesale power supplier to its 20 power distribution members, who provide energy to more than 400,000 residential, commercial and industrial end-use members in Alabama and northwest Florida. PowerSouth's goal is to provide an affordable and reliable power supply for its members and the communities they serve, taking advantage of the most economic means possible when generating and purchasing energy. The Port of Mobile, operated by the Alabama State Port Authority, is critical to reaching our goal.

As the 10th largest seaport in the United States with the fastest growing container terminal in the country, the Port Authority has invested more than $700 million to keep pace with growing demand. The most critical need facing the Port Authority, however, is a deeper and wider ship channel to enable larger, wide-bodied, bulk carriers to utilize the Port of Mobile.

The proposed Tentatively Selected Plan (TSP) would deepen and widen existing channels, leading to greater efficiency and safety by allowing two-way traffic and safer turning of large vessels. PowerSouth Energy offers its full support of this proposed expansion and modernization of the Port of Mobile.

PowerSouth Energy is deeply involved in economic development activities for the regions we serve. The Port of Mobile, along with Alabama's waterways, is a key element in the selection of our state for new and expanding industries. Indeed, Alabama's manufacturing exports continue to grow each year making the TSP recommendations an economically sound investment.

770 Washington Ave, Ste. 170 • Montgomery, Alabama 36104 • Phone: 334.269.2793 • www.powersouth.com

I hope you will take our comments into consideration as you reach decisions affecting the Port of Mobile. I welcome the opportunity to provide any needed additional information.

With best wishes and kindest personal regards, I am

Sincerely,

Horace H. Horn, Jr.

Comment 41

From: Jennifer Denson
To: Mobile Harbor GRR
Subject: [Non-DoD Source] CORRECT COPY RE: PEP Public Comments on GRR/SESI
Date: Monday, September 17, 2018 3:30:24 PM
Attachments: PEP GRR-SEIS Comment Letter 9-17-18.pdf

I apologize the wrong copy of the letter was sent original. Attached is the entire comment letter. Thank you

Jennifer Denson

Executive Director

Partners for Environmental Progress (PEP)

754 Downtowner Loop W.

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LIKE us on Facebook! <Blockedhttp://www facebook.com/pages/Partners-for-Environmental-Progress-PEP/195879500510859>

From: Jennifer Denson
Sent: Monday, September 17, 2018 3:13 PM
To: 'MobileHarborGRR@usace.army mil'
Subject: PEP Public Comments on GRR/SESI

Ms. Jacobson,

Attached are PEP's comments in support of the Tentatively Selected Plan (TSP) as outlined in the Draft Mobile Harbor, Mobile Alabama Integrated General Re-evaluation Report with Supplemental Environmental Impact Statement (GRR/SEIS).

Please do not hesitate to contact me if you have any questions.

Thank you,

Jennifer Denson

Jennifer Denson

Executive Director

Partners for Environmental Progress (PEP)

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PEP
Partners For Environmental Progress

September 17, 2018

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

RE: Comments on the Mobile Harbor Draft GRR/SEIS

Dear Ms. Jacobson:

On behalf of the Board of Directors and 220 member companies of Partners for Environmental Progress (PEP), I am writing to express our support for the Tentatively Selected Plan (TSP) as outlined in the Draft Mobile Harbor, Mobile Alabama Integrated General Re-evaluation Report with Supplemental Environmental Impact Statement (GRR/SEIS).

PEP is a coalition of business leaders who share the vision of applying best environmental practices to business and community issues. Our members include a wide variety of manufacturing, shipbuilding, aviation, engineering and construction firms along with related industrial suppliers and service providers. Since our founding in 2000, we have promoted strong economic growth balanced with the conservation and restoration of the natural resources that make the Alabama Gulf Coast a unique and desirable place to live and do business.

The Alabama State Port Authority is one of Alabama's critical economic engines and PEP's member companies rely on its continued modernization and efficient operations. Upon review of the GRR/SEIS, we find that the TSP and the proposed channel improvements will provide the Port the navigational improvements necessary to maintain and improve its global competitiveness. The Port will be able to provide more efficient and modern services needed by its clients and our local industries. We see only a negligible or minimal environmental impact.

The GRR/SESI is a comprehensive engineering, economic and environmental study that addresses the costs, benefits and impacts of improving the Harbor and ship channel. Originally planned as a three year study, we applaud the Port Authority's request and receipt of a waiver to allow a more extensive and comprehensive analysis of the Plan and the environmental impacts. The requested higher level of analysis required an additional year of study and a significant cost increase to insure that all the appropriate data was collected and properly studied.

The scope of the Draft Environmental Impact Assessment is vast. The draft study analyzed potential impacts to fish, oysters, benthic, submerged aquatic vegetation (SAV's), and wetlands. The draft study characterizes the environmental conditions associated with the existing channel conditions of the area which will serve as the baseline for comparison of all future potential conditions associated with a modified channel. The study assessed impacts on upland biological communities; wetlands;

hard bottom habitat and structural habitat; submerged aquatic vegetation; plankton/algae; benthic invertebrates; mollusks, oyster, crustacean and fish habitats; threatened and endangered species; marine mammals; and fisheries resources. The study also addresses invasive species, air quality, hazardous and toxic materials impacts, and cultural resources. *Findings vary depending upon the specific environmental impact measured, but generally, the study determined the project would have minimal or no impacts.*

Salinity and wave energy impacts were studied, including; potential impacts from saltwater intrusion and other water quality parameter changes both upriver and in the bay. Salinity distribution in the study area is a result of the interaction of freshwater discharge, tides, currents, winds, circulation, evaporation, bathymetry and fresh-water discharge from the Mobile-Tensaw River system. The analysis and modeling determined that the project, if implemented, will result in *fewer vessels coming into the port* (compared to the future Without-Project condition) due to the ability to load vessels deeper. *Consequently, vessel generated wave energy impacting the study area will be reduced due to the decrease in vessels transiting the channel.*

Potential affects to human health and safety, including impacts associated with project construction and port related traffic and transportation, air quality and noise were studied. *Adverse environmental impacts were determined to be minimal and temporary in nature.*

Furthermore, this project can help nourish and replenish the protective barrier island, Dauphin Island. We strongly support the implementation of the Corps' proposal to extend the Sand Island Beneficial Use Area to the northwest in order to ensure placement capacity for future maintenance material from the Bar Channel. Maintenance dredge material from this location is typically sandy material, which is more suitable for nourishing Dauphin Island than the clay and silt material from the channel modification work. The proposed northwest extension should also facilitate movement of placement material along the shoal.

The use of larger Post Panamex vessels in US Gulf ports will occur as will demand for more commodities and goods with or without this project. The TSP will provide a number of efficiencies: Accommodate larger vessels and add cargo capacity thereby maximizing vessel capacity; carry more cargo with lower vessel operating costs, eliminate delays for all vessels transiting the port; and create economies of scale for shippers thereby reducing shipping costs. The study found the total number of vessels, required to meet the anticipated demand at Mobile Harbor during the period of analysis, will decrease compared to the current channel configuration. These benefits plus the finding that environmental impacts will be negligible or minimal make this a well-balanced decision in support of both economic growth and environmental stewardship.

Thank you for your consideration of my comments.

Sincerely,

Jennifer Denson

Jennifer Denson
Executive Director

Comment 42

From: Beverly Smith
To: Mobile Harbor GRR
Cc: [redacted]
Subject: [Non-DoD Source] Letter
Date: Monday, September 17, 2018 3:19:55 PM
Attachments: DOC_20180917135919.pdf

Parker Towing Company, Inc.
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www.parkertowing.com

September 17, 2018

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

Dear Ms. Jacobson,

On behalf of Parker Towing Company, 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. Expansion of the channel is vital in maintaining the port's growth. The existing dimensions of this channel place constraints on deeper drafting coal carriers, which result in reduced efficiency and increased costs. A deeper and wider channel will clear the way for the port to accommodate larger container, bulk and neo bulk carriers already calling the port today. A deeper channel also allows ships to carry more weight, making the port more efficient for importers and exporters.

Parker Towing Company operates on our Nation's Inland Waterway System and is one of the largest barge lines in the Southeastern United States. The Inland Waterway System, including the Port of Mobile, provides both domestic and international trade opportunities through low-cost, environmentally sound movement of vital goods and resources that drive our economy. It also provides jobs to tens of thousands of hardworking Americans. The vital resources that drive our economy move safely and efficiently through our ports. The food on our tables, fuel in our cars, heat in our homes, and materials for our manufacturing facilities, are made more affordable, available, and competitive by the Port of Mobile.

The Port of Mobile is the tenth largest full-service seaport in the U.S. and the fastest growing container terminal in North America with 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, is responsible for 134,608 direct and indirect jobs in Alabama with a direct and indirect tax impact of $486.9 million.

Thank you for your attention to this matter. It is my hope that the U.S. Army Corp of Engineers recognizes the value of funding this vital project.

Sincerely,

Tim Parker III
President, Parker Towing Company

Comment 43

From: Scheller, Walt
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Mobile Harbor Deepening and Widening Project
Date: Monday, September 17, 2018 3:04:49 PM
Attachments: image002.png

Attention: Ms. Jennifer L. Jacobsen / U.S. Army Corps of Engineers, Mobile District

Dear Ms. Jacobsen:

Last year, Warrior Met Coal moved nearly 6 million tons of coal through the Port of Mobile's McDuffie Coal Terminal. The company expects to export more than 7 million tons of metallurgical coal through the coal terminal this year, and closer to 8 million tons starting next year and for the foreseeable future.

Current channel width and depth levels not only contribute to delays for all shipping, including coal, but place limits on the size of vessels the company is allowed to load.

The deepening of the channel will permit Warrior Met Coal to load significantly larger vessels, resulting in a reduction of the number of vessels. Fewer vessels could lower demurrage costs and provide more favorable customer freight rates. This in turn will make the McDuffie Terminal increasingly able to compete against the larger overseas terminals in Asia-Pacific.

Increasing the size of the Choctaw Pass Turning Basin will enhance the ability of larger vessels to turn.

Warrior Met Coal supports the proposed deepening and widening of the Mobile ship channel, believing that it will contribute significantly to the safety and efficiency of port operations.

Thank you,

Walt Scheller

WALTER J. SCHELLER, III

CHIEF EXECUTIVE OFFICER

WARRIOR MET COAL

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P: 205.554.6150 \ F: 205.554.6011

walt.scheller@warriormetcoal.com

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Comment 44

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 2:48:58 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

MOBILE, Alabama 36608

<Blockedhttps://u1584542.ct.sendgrid net/mpss/o/FAE/ni0YAA/t.2ky/sCxsALgBRSmBd1eSvA8lqg/o.gif>

Comment 45

From: Judith Adams
To: Mobile Harbor GRR
Cc: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] FW: Support
Date: Monday, September 17, 2018 2:45:04 PM
Attachments: 2018 RESOLUTION TO SUPPORT PORT OF MOBILE CHANNEL & HARBOR IMPROVEMENTS.docx
Mobile ship channel support ltr.docx

Larry advised this may have gone snail mail to Col. Joly direct. I am adding it in the event it has not made it to the office yet. Judy

Judith Adams

Alabama State Port Authority

+1 251-441-7003

jadams@asdd.com <mailto:jadams@asdd.com>

From: Larry Merrihew [redacted] aol.com>
Sent: Monday, September 17, 2018 11:50 AM
To: Judith Adams <JAdams@asdd.com>
Subject: Support

This is the BWT info. Thanks for your help

Larry Merrihew, President
Warrior Tombigbee Waterway Association
250 N. Water St.
Mobile, Al 36652
251-431-9055

2018

A RESOLUTION TO SUPPORT THE PORT OF MOBILE'S
PROPOSED CHANNEL & HARBOR IMPROVMENTS

By the

Warrior-Tombigbee Waterway Association

WHEREAS, the Warrior-Tombigbee Waterway Association is a member organization composed of business, industry, and municipalities located throughout the Southeastern United States; and

WHEREAS, the Warrior-Tombigbee Waterway, combined with the Tennessee Tombigbee Waterway and the Tennessee River, provides the Port of Mobile with access to 12,000 miles of inland waterways and 26 States; and

WHEREAS, the Alabama State Port Authority of Mobile seeks to improve the Port of Mobile's channel and harbor to serve the larger vessels that now traverse the improved Panama Canal and thereby making the Port of Mobile more attractive as a port of call for larger ships; and

WHEREAS, the proposed channel and harbor improvements of the Port of Mobile would generate net economic benefits in excess of $34 million dollars annually and have a positive impact on capital investment and creation of new jobs; and

WHEREAS, improving the channel and harbor of the Port of Mobile would benefit the 26 states served by the aforementioned waterways and provide additional opportunities for increased commerce; and

WHEREAS, the Port of Mobile is an invaluable asset to the States served by the inland rivers of the United States; Now, therefore

BE IT RESOLVED, that the Warrior-Tombigbee Waterway Association strongly supports improvements to the channel and harbor of the Port of Mobile; and

BE IT FURTHER RESOLVED, that the Warrior-Tombigbee Waterway Association encourages the U.S. Army Corps of Engineers to favorably complete the study of improving the channel and harbor for the Port of Mobile and then execute said study; and

BE IT FURTHER RESOLVED, that a copy of this resolution be spread upon the minutes of the Warrior-Tombigbee Waterway Association; and

BE IT FURTHER RESOLVED, that copies of this resolution be presented to officials with the U.S. Army Corps of Engineers, the Alabama State Port Authority, and to appropriate members of the United States Congress and other appropriate officials.

IN WITNESS THEREOF, the Warrior-Tombigbee Waterway Association Board of Directors has instructed us to affix our signatures to this resolution on the ____ day of August, 2018.

_____	_____
Charles A. Haun	Lawrence L Merrihew
Chairman	President

WARRIOR-TOMBIGBEE WATERWAY ASSOCIATION

August 27, 2018

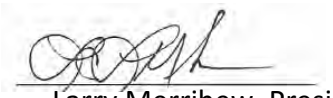
U.S. Army Corps of Engineers
Mobile District
Attention – PD-EC
109 St Joseph Street
Mobile, Al 36602

To Whom It May Concern:

Our organization is a non-profit corporation formed in 1951 to represent those interested in navigation of the Warrior Tombigbee river system. It continues to work for the system's further development and proper maintenance and has become the principal vehicle for those who wish to work together toward these ends. Our membership is comprised of a broad cross section of business, industry and government throughout the Southeast. It has significant new challenges in the years ahead in maintaining the viability of the waterway as industry needs increase, as energy demands grow and as constraints on waterway development continue.

We fully support the Mobile Ship Channel Project, recognizing the critical role of our nation's water resources infrastructure to a robust economy, job creation, public safety and environmental well-being. As a result we would submit the attached resolution in support of the Mobile ship channel project.

Respectfully Submitted,



Larry Merrihew, President

WTWA · 250 North Water Street, Mobile, Alabama, 36602
P.O. Box 2863, Mobile, Alabama 36652 · Phone: 251-431-9055 · Email: warriortom@aol.com · Website: warriortombigbee.com

Comment 46

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 2:37:58 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area.

While I support the maritime industry in the Port of Mobile, those of us who live, work and play on and near Mobile Bay are reminded every day of the immeasurable contributions of a "clean and healthy" Mobile Bay to our economy, our recreation and our quality of life! A rush to judgment without taking into account all of the potential threats the project poses to the health and beauty of Mobile Bay would be penny wise and pound foolish. Those of us who grew up in Mobile and Baldwin Counties, as well as the thousands of folks who have moved here the past several years and the thousands more who visit every year, deserve the opportunity for our kids and grandkids to experience and enjoy Mobile Bay. To do less would be a travesty!

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments.

By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

Fairhope, Alabama, Alabama 36532

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Comment 47

From: [redacted]
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Opposed to the proposed deepening and widening of Mobile Bay Ship Channel
Date: Monday, September 17, 2018 2:37:01 PM
Attachments: jod proposed dredge Corps ltr.docx

Please find attached my letter and comments opposing the proposed plan to widen and deepen the Mobile Bay Ship Channel.
If you would like to speak to me or even visit my home on Mobile Bay -- you are all welcome!

As always,
[redacted]

September 17, 2018

COL Sebastien P. Joly, District Commander
U. S. Army Corps of Engineers, Mobile District
P. O. Box 2288
Mobile, Al 36628

Dear COL Joly,

I am writing to ask for a delay and review of the proposed plan to widen and deepen the Mobile Ship Channel. As a resident of Hollingers Island for 30 years, blessed with a home on Mobile Bay, I have witnessed the ship waves grow by some one to two feet and seen approximately 20 feet of erosion in front of my home. The destruction of the grass beds is of particular concern since this is the breeding ground for fish, shrimp, crab and oyster.

If you insist on this – at the very

The failure of the Draft GRR/SEIS to adequately identify the availability of maintenance disposal capacity for the Tentatively Selected Plan (TSP) for the next 50 years is a major concern. How can you pass something that will harm the environment without an effective long range plan? This is irresponsible and wrong. Without addressing this issue, the Supplemental Environmental Impact Statement component of the report is wrong and does not fully comply with the National Environmental Policy Act for the full 50-year period of analysis identified in the report.

On page 5-14, the statement is made that "…there would be no expected increase in the concentrations of the turbidity as a result of the implementation of the TSP." Given the magnitude of the annual maintenance dredging operations and the fine-grained nature of the sediments dredged, this impact statement does not make sense. The report should be expanded to better explain why turbidity levels in Mobile Bay will not be increased during sustained periods of open water disposal of dredged material.

This is wrong and with every point I have made and I know that others have made – it is wreckless and irresponsible. I am embarrassed for our decision-makers.

If you have questions, want pictures, would like an interview from a lifelong resident of the area, please know I am willing and able to help.

As always,

Comment 48

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 2:12:33 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Fairhope , Alabama 36532

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Comment 49

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 2:07:17 PM

David Newell,

Dear District Commander,

I am writing to express considerable concern over the Corps' study indicating no impact on the environment from a major expansion project for the Mobile ship channel. The Corps has to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. When we first moved back to Mobile in the mid 80's the average rainfall was in the high 50 inches a year...it is now in the high 60 inches a year. With each passing year, more weather events, more tropical events that sit and swirl (as we have recently witnessed with Harvey/Maria/Florence to name a few). The Corps must include at least three years of RECENT data to show how severe weather impacts the study's results;

The Corps must also include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel, especially Red Tide with what is happening in Florida;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive, it's a major industry that needs to be protected. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

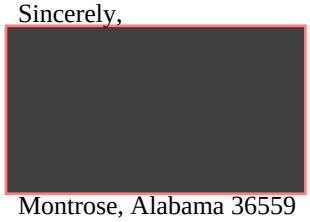
The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

Also, the tremendous short amount of time that the study was done was a self imposed time frame...not one given to the Corp...that needs to change so that the Environmental Impact Study can done in a complete and systemic way.

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,



Montrose, Alabama 36559

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Comment 50

From: Garsed, Monica
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Spire comments and Support
Date: Monday, September 17, 2018 1:55:27 PM
Attachments: image001.png
ASPA letter of support 9 17 18.pdf

Please find the attached letter from Spire.

Thank you,

Monica Garsed

Monica Garsed

Economic Development Project Manager, Alabama/Mississippi

2828 Dauphin Street

Mobile, AL 36606

251-450-4757 Office

251-454-5487 mobile

Alagasco, Mobile Gas and Willmut Gas are now Spire.

Visit SpireEnergy.com to learn more.

Spire Inc.
2828 Dauphin Street
Mobile, AL 36606 Commerce

September 17, 2018

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

Ms. Jacobson,

Spire is a natural gas utility serving 1.7 million natural gas customers in Alabama, Mississippi and Missouri, as well as being Alabama's largest natural gas distribution company. In Spire's view, the Alabama State Port Authority's effort to improve the infrastructure of the Mobile Channel by widening and deepening will allow Alabama and the Southeast United States to continue to expand economically. This infrastructure improvement will provide opportunities for the region's residents and businesses, as well as enhance economic development opportunities available to Alabama and surrounding states for decades to come.

As the Alabama State Port Authority is responsible for generating 134,608 direct and indirect jobs and a total economic value of $22.4 billion, Spire supports the Alabama State Port Authority's effort to widen and deepen the Mobile Channel as reflected in the Tentative Selected Plan (TSP), detailed in the Mobile Harbor, Alabama Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (GRR/SEIS), which evaluated widening and deepening the Mobile channel, including the potential economic and environmental impacts.

Spire is committed to the continued economic growth of Alabama, Mississippi and Missouri and works with economic development partners across our service territory to advance every community. We believe the widening and deepening of the Mobile Channel significantly contributes in a positive way to the success of our region.

Sincerely,

Monica Garsed
Economic Development Project Manager, Alabama/Mississippi
Monica.Garsed@SpireEnergy.com
O: 251.450.4757 / C: 251.454.5487

Comment 51

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 1:52:43 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Mobile , Alabama 36604

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Comment 52

From:	Sewell, Brian
To:	Mobile Harbor GRR
Subject:	[Non-DoD Source] Support letter for Mobile Harbor, Mobile Alabama Draft Integrated General Reevaluation Report
Date:	Monday, September 17, 2018 1:35:44 PM
Attachments:	Support letter for Mobile Harbor Plan.pdf

Ms. Jacobson,

Please find attached a letter in support of the Mobile Harbor Draft GRR.

Best regards,

Brian Sewell

Drummond Coal Sales, Inc.

Vice President

Office: 205-945-6329

Mobile: 205-492-4432

bsewell@drummondco.com

1000 Urban Center Drive
Suite 205
Vestavia Hills, Alabama 35242

Telephone: (205) 945-6400
Fax: (205) 945-6440

DRUMMOND
COAL SALES, INC.

September 17, 2018

Ms. Jennifer L Jacobson
U.S. Army Corps of Engineers, Mobile District

Dear Ms. Jacobson,

On behalf of Drummond Company Inc. and Drummond Coal Sales Inc. (Drummond), I write to offer comments in support of the Tentatively Selected Plan (TSP) identified in the Draft Mobile Harbor, Mobile, Alabama Integrated General Reevaluation Report with Supplemental Environment Impact Statement. Drummond and its customers have used the Port of Mobile since the 1970's, and as a longtime customer of the Alabama State Port Authority we are in favor of the TSP and the benefits that the users of the Port of Mobile will enjoy as a result of the enhancements.

Drummond and other coal producers are currently limited to the 45 feet draft in terms of the options we can offer to our customers on the amount of coal or other commodities to be shipped. The TSP would provide a deeper and wider channel that could benefit Drummond and other coal producers in being able to provide our customers with the option of bringing in larger vessels, which helps to decrease their costs. This allows Drummond and others in the state to be more competitive in the global seaborne metallurgical and steam coal markets.

Another benefit of the deeper and wider channel is that it would reduce congestion when traversing the channel. The existing channel depths and widths limit vessel cargo capability and restrict many vessels to one-way traffic. There have been numerous times that a vessel loading Drummond coal has been delayed either entering the channel to come to berth or leaving McDuffie Terminal to start its voyage to its destination due to another vessel being in the channel. These delays last many hours and result in increased costs for Drummond and/or our customers.

It is my hope that the U.S. Army Corp of Engineers recognizes the value of funding this vital project.

Sincerely,

Brian Sewell
Vice President Drummond Coal Sales, Inc.

Comment 53

From:	Organized Seafood Association of Alabama
To:	Mobile Harbor GRR
Subject:	[Non-DoD Source] Organized Seafood Association Comments on Draft Re-evaluation Report and Supplement to the Environmental Impact Statement Mobile Bay Deepening and Widening Project
Date:	Monday, September 17, 2018 1:30:10 PM
Attachments:	Rosa.vcf Comments Deepening and Widening Mobile Bay Project Sept 2018.pdf

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Organized Seafood Association of Alabama (OSAA) comments on the Draft Re-evaluation and Supplement to the Environmental Impact Statement for the Mobile Bay Deepening and Widening Project are attached.

Avery Bates
Vice President

Organized Seafood Association
PO Box 338
Bayou La Batre, AL 36509
(251) 824-1672
Follow us on Facebook - Eat Alabama Wild Seafood
Blockedwww.eatalabamawildseafood.com
organized@centurytel.net <mailto:organized@centurytel net>

ORGANIZED SEAFOOD
ASSOCIATION OF ALABAMA

September 13, 2018

U.S. Army Corps of Engineers, Mobile District
Attn: Colonel Sebastian P. Joly
PO Box 2288
Mobile, AL 36628-001

RE: Mobile Bay Draft General Re-evaluation Report and Supplement to the Environment Impact Statement

Dear Colonel Joly:

As a retired commercial fisherman, Vice President of Organized Seafood Association of Alabama (OSAA), and on behalf of our Alabama commercial fishermen I am writing these comments in regard to the Mobile Bay Draft General Reevaluation Report and Supplement to the Environment Impact Statement and Impacts to Mobile Bay, Dauphin Island and surrounding areas. OSAA's mission is to Promote Greater Efficiency in Meeting the Marketing, Infrastructure, Policy and Regulatory Needs of the Alabama Commercial Seafood Industries and all Support Business or Industries. One of our objectives is to identify issues that affect the industry and to take a leadership role in finding solutions in an effective, efficient and equitable manner. While changes in the Port of Mobile seem necessary to support growth, we must ensure the means to this growth does not destroy an area that is critical to many, including the Commercial Seafood Industry. It is our belief, *The study is inadequate and* ***underestimates*** *the impacts to our natural resources.*

PO Box 338
Bayou La Batre, Alabama, 36509
O: 251 824-1672
www.eatalabamawildseafood.com
info@eatalabamawildseafood.com

Our concerns began when we discovered the Commercial Seafood Industry was intentionally left out of the Mobile Harbor Interagency Working Group (IWG) Meetings that begin in February 9, 2012. It appears the IWG initiated pursuing conceptual opportunities for beneficial use (BU) opportunities for dredge material associated with maintaining the navigation channel in Mobile Bay which also included open-bay disposal. Three BU opportunities were under consideration which included placement of dredged material in the Brookley holes, design and construction of a long-term BU site in upper Mobile Bay, and re-establishing within the bay thin-layer disposal along the Mobile Bay channel. In December 2014 there was discussion concerning filling man-made oyster shell mining holes in Mobile Bay. Discussions were held, concepts were presented and initial plans were made without the input of members of the Commercial Seafood Industry, recreational user groups, and home/property owners of Mobile Bay and Dauphin Island which is discriminatory injustice to those who make their living from the waters of Mobile Bay as well as those who consume Alabama seafood, who live along the bay and enjoy the beauty of our area.

Organized Seafood Association of Alabama made several requests to be a member of the IWG, request that were ignored. To date OSAA is still not a member of the IWG.

Observations and general concerns:

1) As a commercial fisherman you will sometimes work in shallow waters, when the seas are calm, you'll be sighting/tonging for oysters, fish, etc., working to provide not only for your family but to provide excellent quality seafood for the consumer. You look up and see a 4 to 6-foot wave coming at you and the beach, you hurry to try to secure your boat and yourself so that you don't get thrown overboard or thrown into the cargo hole on your boat causing bodily harm and injury, or crash into another boat. When the very large waves are over and after the waters calms down or clears, which sometimes takes a while or not at all, you

notice all the small fish and shrimp that have been washed up on the shore. You wonder about all the other sea life you can't see. You see the abuse the shoreline has taken and wonder how stable or long it will remain intact. The wave action from a large ship or vessel traveling too fast has thrown high wakes causing erosion and siltation.

2) The methodology used to determine the general wave climate is flawed. The field data collection using a suite of five pressure sensors located north of Gaillard Island will not give an accurate account because North of Gaillard Island and the large disposal areas along the west side of the ship channel would impede any true accurate reading from reaching these sensors. The sensors should have been spread out in five different areas along the bay, we suggest these locations:

   a. South of Gaillard Island about 100 feet off the beach in the middle of the island;
   b. Little Dauphin Island, about 200 yards from the north end of the island 150 feet off the beach;
   c. Cedar Point, north 200 yards north of the point on Patty Shoals and 150 feet off the beach;
   d. Halfway up the Alabama Port Beach towards Fowl River, placed about 100 ft away from the shore;
   e. North of East Fowl River about one mile placed 100 feet off the beach. These areas are highly impacted by ships/vessel that currently use the Port of Mobile. It makes more sense to place the sensors in areas where known problems from wave actions occurs than in sheltered areas where you will not get true results.

Erosion of the western shore of Mobile Bay is a continuing problem. Instead of giving validity to the folks who live on the bay, the property owners, regarding the current issues with wave action from the vessels that currently cruise the channel, the USACOE formed an

assumption of no serious wave action on bad methodology-poor placement of sensors. A Vessel Speed Reduction program needs to be implemented to reduce the ship wake energy impacting shorelines. Imposing and enforcing speed limits on the vessels traveling the shipping channel is necessary to reduce the magnitude of waves breaking on the shore from passing vessels.

Problems with the current study:

a. Bias field data collected only from North of Gaillard Island where vessel speeds are lower
b. Information from only a limited number of ship sizes and weights
c. Study did not include larger vessels anticipated to call at the port
d. An unvalidated assumption of fewer ships "WITH PROJECT" than "WITHOUT PROJECT"

The above a-d, resulting with the study underestimating ship wake impacts. The USACOE must study the impact from ship wave action on our aquatic life (oysters, fish, SAV's, etc.) and the shorelines.

3) On September 12, 1979, a natural disaster hit Cedar Point oyster reefs and other shallow bays reefs. Hurricane Fredrick almost wiped out oysters in Alabama. Because of that, oystermen looked in other areas to harvest – West Fowl River, West Heron Bay, Long Bayou, and deeper waters of Mobile Bay west of the ship channel and on the East Side of the channel by Middle Bay light. In the early '80's there were about 60-80 fishermen working the deep bay reefs. These reefs were originally in the middle of the bay prior to the first dredging of Mobile Bay placing spoil and shells/oysters on the west side of the channel which naturally reproduced. Our oystermen located the reefs and continue to work. The

channel was maintained with pipeline dredges and later the USACOE permitted open water placement of spoils on these oyster bottoms/reefs killing many, many acres of living oysters. Result - impact of pipeline dredging and open water placement of spoils: kills oysters!

4) Permits were given by the USACOE to build Gaillard Island. Gaillard Island was built on top of one of the most productive living reefs in Mobile Bay. Fishermen were told by the Corps chief environmentalist at the time, Hugh Mc Clellan, to build the island, the rocks had to sit on a strong foundation therefore; the oyster and clam reefs that naturally grew there were used as the foundation. This destroyed habitats for various marine life; spawning areas were destroyed. Gaillard Island destroyed prime oyster bottoms, diverted natural fresh water flow from the rivers, impeded oyster larvae from moving south toward other approved areas for oyster harvest, and destroyed natural water filters and oxygen producers (Oysters) for the bay. Mobile Bay is a shallow bay "historically". Placing this spoil and other dredge soil areas will impede the dilution of high fecal volume that runs off Gaillard Island into the bay. Currently, there are over 11 thousand nesting pairs of pelicans residing on the island; also, several large sewer discharge lines are located in the North end of the Bay, posing additional health risk to seafood. Adding to the shallowness, the continued silting from the large ships wave action will for years spread high amounts of turbidity both up and down the bay causing low dissolved oxygen and stratification of the water columns, salt on the bottom and fresh water on the top and a fluctuating silt levels in the middle of the water columns stopping or impeding sunlight to reach the grass beds killing them.

5) A permit was issued by the USACOE that allowed companies to mine historic oyster and clam reefs in Mobile Bay to build highways and road infrastructures. This caused large plums of silt that covered other oyster bottoms and reefs, killing them; silt moved 2-3 miles south and farther along the bay. The mining operations also caused large, deep holes in the

bay bottoms. Over the years these holes have mostly filled by natural filling and open water disposal and placement of spoil.

6) The Oil and Gas Industry obtained permits from the USACOE to dig large pipeline corridors in the bay. The pipeline located off Alabama Port beach that extends out into Mobile Bay had mounds of spoil piled several feet above the water that could be seen in several locations on the bar and off the edge of the bar. These mounds could be seen from the top of Dauphin Island Bridge, approximately 3-4 miles. Several Commercial fishermen complained of their crab traps being silted to the point they couldn't pull them. Members of the industry reported the problem to the Alabama Department of Conservation and Natural Resources who documented and reported the silting. The silt coming from this spoil area covered ninety (90) percent of the Kings Bayou reef and other nearby reefs was also covered. This was documented by the Alabama Marine Resources Marine Biologist, Mark Van Hoose.

7) About 2 years ago, dead oysters were reported by Commercial fishermen after the USACOE permitted to pump dredge spoil material in the deep holes off Brookley field in the Upper Mobile Bay. The silt and spoil materials were carried long distances and settled covering oysters and clams. Commercial fishermen witnessed dead oysters attached to their nets while fishing south and around the spoil areas where they were once alive. Several local fishermen met with the USACOE, at the USACOE's request to report findings, at a meeting held at the Light House Restaurant in Bayou La Batre. The fishermen told the USACOE fish (mullet, speckled trout, and red fish) used these holes as winter protection. Filling the holes destroyed fish sanctuaries. After listening to the fishermen tell of the problems with filling the holes a member of the USACOE called a recreational and commercial fishermen instigator. This unprofessional and very inappropriate remark should never have been made

in such an important meeting. The fishermen were just stating facts of what they knew happened.

8) During a period of open water placement of dredge spoils commercial fishermen have complained about not being able to navigate the waters south of the Tensaw River where they had always fished, citing running aground on the dredge spoil materials in areas they had not ever encountered navigational problems.

9) The Denton Reef was placed on the north end edge of the White House Reef by the Department of Conservation. There was approximately 10,000 cubic yards of shell place on the bay bottoms surrounded by old culverts and broken concrete. To date not one sack of oysters has been harvested from that reef. When oystermen have tried to catch oysters there nothing was found; no shell, no oysters, only mud and silt. The Denton Reef is completely covered with silt wasting approximately 10,000 cubic yards of shell.

10) The oysters/clam reefs that are left alive in the upper Mobile Bay have produced "essential fish habitat" for many years. The bio mass that a living reef can produce is essential for a healthy estuary or bay. One acre of living reefs can produce tons of bio mass each year, plus filter millions of gallons of water and add oxygen to the water.

The study on how the project will impact oysters is incomplete:

a. The study fails to use and compare their model to an existing high-quality model developed by local scientist with input from the Commercial Fishermen.

b. The model only looked at ONE oyster reef, to get a true outcome the USACOE needs to run a model using ALL oyster reefs in Mobile Bay.

c. Consideration to ALL the natural oyster reefs that exist in and around the bay HAVE to be considered, the USACOE must us this data to ensure all sites are being analyzed.

d. The study does not include how oyster drills and other predators, will move with greater salinity moving into areas that were considered fresh waters. If the channel is deepened and widen the salinity will be far greater, killing grass beds and oyster reefs from oyster drills and other predators that thrive in saltier water.

11) USCOE has permitted for over 100 years maintenance dredging of good beach quality sand from the mouth of Mobile Bay. Placing much of the sand in deep open water disposal sites never reaching Dauphin Island, our only true barrier island. Dauphin Island has lost an estimated 7 million cubic yards of sand since 1999 and over 23 million since 1980 to the littoral system. The natural littoral flow of sand, from EAST to WEST, falls into the channel, which is dredged and disposed in open waters off shore or put in the Sand Island Beneficial Use area and subsequently moves offshore. To date, little to no sand has reached Dauphin Island Beaches. The loss of millions of cubic yards of beach quality sand due to unwise channel disposal practices has and continues to adversely affect Dauphin Island. Dauphin Island protects our bays and estuarine water quality which is needed for oysters and other marine life to exist. It also protects communities, the City of Bayou la Bare and inshore estuaries.

The USACOE must :

a. be sure the material being dumped in the SIBUA is actually making it to Dauphin Island to replenish shorelines.
b. Dredge material must be placed in appropriate depth and proximity to Dauphin Island

12) The Alabama Pollution Control Act 22-22-1 (3) Defines pollution as the discharge or a pollutant or combination of pollutants. A pollutant includes but is not limited to dredge

spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, industrial, municipal and agricultural waste discharged into the water. Statutory Law concerning "dredge Spoil" covering Essential Fish Habitat, with the methods of open water disposal of dredge spoils has covered thousands of acres of oyster bottoms and reefs. The thick layer of spoil causes smothering of live oysters and creates such turbidity that other benthic species of marine life and sea grasses are smothered which was essential fish habitat in Mobile Bay.

The data contained in the DESIS is incomplete:

a. Water Quality studies were limited to one year, impacts to natural habitats are underestimated

b. Some impacts to seagrass were noted, however there is no study on how the impacts will affect the species that rely on them.

c. The samplings on species that live on the bay bottom-crabs, shrimp, and organism that are important food sources for fish was limited to fall and spring and were only conducted in the upper portions of the bay. Creating gaps in the data. The USACOE must use complete datasets to address the gaps

13) Deepening and widening the channel has/will cause an extra salty wedge to occur in the Bay and the delta. This has been observed over a number of years with the Channel's present depth of 45 plus feet. Commercial and recreational fishermen who fish at the mouth of the river, and Middle Bay southward have seen this happen. This was unheard of years ago; the waters were much too fresh to allow deep water marine life to travel this far north. The deeper the channel the farther the salt water intrusion travels, causing an unnatural change in the bay. The increased salinity in the bay allows predators, like the oyster drill, to live, breed and survive, which can be devastating to the Alabama oyster population. The

increased salinity will also destroy fresh water grass beds, crucial estuarine habitats. Ninety plus percent of our seafood either live, spawn, or live to their maturity in these areas. The statement *"no substantial impacts in aquatic resources within the study area are anticipated due to channel modifications, this is likely because the area of greatest potential changes to environmental conditions are already adapted to natural shifts in salinity"*... is again flawed science. Any past dredging of the bay and building of islands in Mobile Bay will and have changed the salinity of Mobile Bay. The unnatural salt wedge in the bay was introduced by the USACOE's allowance of deep-water dredging. The misplacement of spoil material for years has caused the shallowing of our bay and continues to cause high turbidity and improper flushing covering essential fish habitat.

14) The proposed "Upper Mobile Bay Beneficial Use Site", a 1,200 acre BU area east of the navigation channel in the Upper Bay south of the Causeway has not been discussed in detail from the initial plan. Documents show the island project was approved for funding on December 9, 2015 by the Alabama Restore Council. The proposed Study was to take 2 years to complete. To date, the public has not had any explanation of the planning process and/or progress. It would appear, again, the USACOE and Port Authority are trying to prevent public knowledge. This area is a productive/working area for Commercial Crabbers, Commercial Fishermen, Commercial Bay Shrimpers, and recreational users. The public needs to be updated on the proposed 1,200 acre spoil site. We want clear and concise project plans on this BU site to be disclosed.

    a. The USACOE needs to update surveys and verifications with Commercial Fishermen, Recreational Fishermen, Community Members and Property Owners to understand what is currently living in these areas to make sure dredge material does not end up in the wrong place.

b. A Dredge Management Plan needs to be developed that includes ALL proposed projects in the Mobile Bay area.

15) We have major concerns regarding the preliminary findings of "minimal or no effects" as stated in the document and the USACE lack of responsibility towards mitigation. A project of this magnitude being proposed in a sensitive and fragile environment like our estuary will have unavoidable effects on wetlands, submerged aquatic vegetation, oysters, fish, shrimp, crabs, shorelines and benthic communities along with the people who make their living from the bay and communities along Mobile Bay. The report does not explain why disposing of dredge materials in open water over thousands of acres of Mobile Bay bottoms during dredging operations will not increase turbidity levels and make the Bay shallower. The reports states *"...there would be no expected increase in the concentrations of the turbidity as a result of the implementations of the Tentative Suggested Plan (TSP)."* Everything that has made its way to the bottom of the ship channel, organic matter along with mud, clay, all types of slit, waste water treatment plants effluents will be contained in the spoil materials has and will destroy natural resources.

The USACOE prediction of *"no effects"* is seen as an attempt to continue destroying the natural resources in Mobile Bay and avoid mitigation/restitution for the impacts that will come from an enlarged ship channel.

The USACOE disregard for mitigation isn't new to our organization. During the construction of the Mobile Port Authority's Container loading/unloading dock OSAA submitted a written request for mitigation of several acres of oyster reefs in the upper Mobile Bay because of the close proximity of the oyster/clam reefs just south and to the west side of the ship channel. Commercial Fishermen who worked the bay waters knew and understood the river

current; on a falling tide the turbidity caused would naturally move south and to the west resulting in damage and killing some of the natural resources. OSAA's request was denied and no true oyster mitigation occurred.

The plan must ensure that all damages are properly mitigated, just as other port expansions have done (Houston, Charleston, Jacksonville). The USACOE and the project sponsor, under multiple statutes, laws and regulations could have significant liability consequences if either attempt to ignore or hide these impacts from the public.

To protect all the sectors Mobile Bay supports, Commercial Seafood, Recreational fisheries, tourism, coastal development and recreation users, to protect our quality of life, to protect our communities, the USACOE must have a comprehensive plan that will minimize negative impacts and provide proper viable mitigation compensation, not "feel good" mitigation to the sectors this project will damage.

16) Concerns on impacts to Environment Justice and fishing communities - Bayou La Batre, Coden, Fowl River, Heron Bay, are a few of the fishing communities or low-income communities this project will affect. Many families within these communities average income is below the national average according to the last census report. Some families are subsistence fishermen who fish to provide meals for their families and neighbors. Subsistence fishermen are not commercial or recreational fishermen, they fish to feed their family. It is imperative the USACOE comply with Executive Order 12898 requiring federal agencies to ensue minority and low-income populations will not experience high and adverse impacts from federal projects. People and resources should never be considered expendable or receive collateral damage by Government entity, agencies, departments, firms, or corporations.

Our elected officials play an important role as stated in the National Environmental Policy Act (NEPA) of 1969 and title 40 of the Code of Federal Regulations parts 1500-1508 require federal agencies to consider the potential environmental consequences of the proposed actions and alternatives. Executive Order (EO) 11514 Protection and Enhancement of Environmental Quality amended by EO 11991 further provides policy directing the federal Government to take leadership in protecting and enhancing the environment. We hold these officials to the standards set forth in the NEPA and EO 11514 .

The Commercial Fishermen of Alabama, over many years, have witnessed the USACOE permit and allow the destruction of the Public's Natural Resources in Mobile Bay, and other areas, by violations of both federal and State laws.

Code of Alabama, 1975; Volume 7, Title 9, Conservation and Natural Resources

§9-12-20 Ownership and Control of Seafood: All seafoods existing or living in the waters of Alabama not held in private ownership legally acquired and all beds and bottoms of rivers, streams, bayous, lagoons, lakes, bays, sounds and inlets bordering on or connecting with the Gulf of Mexico or Mississippi Sound within the territorial jurisdiction of the State of Alabama, including all oysters and other shellfish and parts thereof grown thereon, either naturally or cultivated, shall be, continue and remain the property of the State of Alabama to be held in trust for the people thereof until title thereto shall be legally divested in the manner and form authorized in this article, and the same shall be under the exclusive control of the Department of Conservation and Natural Resources until the right of private ownership shall vest therein as provided in this article. (Acts 1926-27, Ex. Sess., No. 169, p. 192: Code 1940, T. 8, § 112.)

Under the **Public Trust Doctrine**, the State is required and authorized to manage State held resources as a trustee – the State acts as a fiduciary by managing its trust resources for the benefits of the public and future generations.

U.S. Supreme Court Landmark (1892) Illinois Central Railroad V. Illinois "wherein the Court enunciated that: The State can no more abdicate its trust over property in which the whole people as interested...than it can abdicate its police powers in the administration of government and the preservation of the peace." And thus, is sheltered from "taking" claims because a state cannot unconstitutionally "take" what it already holds in trust for the people.

Stop taking the states resources by letting big companies destroy them! We should never allow the USACOE, other Federal Agencies, State Agencies or Cities to destroy our natural resources. (Code of Alabama, Statutory Law Title 22: Health, Mental Health and Environmental control, Chapter 22 Water Pollution Control, section 22-22-1 (7) otherwise known as the Alabama Water Pollution Control Act)

The National Environmental Policy Act (NEPA) of 1969 and title 40 of the Code of Federal Regulations parts 1500-1508 require federal agencies to consider the potential environmental consequences of the proposed actions and alternatives. Executive order (EO) 11514 Protection and Enhancement of Environmental Quality amended by EO 11991 further provides policy directing the federal Government to take leadership in protecting and enhancing the environment.

The Magnuson-Stevenson Fishery Conservation Management Act states "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity" PL 94-265. The Gulf of Mexico Fisheries Management Plan 2010 identifies Essential Fish Habitat in the proposed project area to be intertidal wetlands, submerged aquatic vegetation, no vegetative bottoms, shell reefs and estuarine water columns.

Promoting Alabama's Seafood Industry Since 2002

The public bundle of rights (the jus publican) is those held in trust for the benefit of the public. Traditionally, these rights were depicted as the rights of navigation, commerce and fishing. As made evident, given the dynamic nature of the Public Trust Doctrine, over time the scope of protected uses has been expanded by the courts to included recreation, environmental protection, and other water related uses, even sunbathing. The Jus Publicum rights cannot be sold or conveyed away by the State.

The Alabama Commercial Fishing Industry wants to ensure and is expecting the Magnuson-Stevenson Conservation Fishery Management Act, US Environment Laws, State Code of Alabama Laws, Alabama Pollution Control Act, National Environmental Policy Act, US Constitution, Alabama Constitution, The Public Trust Doctrine, the Clean Water Act, Executive Order 12898, and the Coastal Zone Management Plan to be upheld by all agencies and elected officials who have taken oaths to enforce and protect our natural resources and water quality. The commerce from our seafoods, which travel through our state, nation and around the world, is now in jeopardy of being negatively impacted by this proposed project that continues to use flawed science and untruths signed off by these "protecting" agencies.

We expect the USACOE to evaluate each comment based on our concerns and provide a written reposed for how each will be addressed and incorporated into the Draft Supplemental Environmental Statement.

Avery Bates

Avery Bates,
Vice President, Organized Seafood Association of Alabama

CC:

Alabama Representative David Sessions
Alabama State Senator William Hightower
US Representative Bradley Byrnes
US Senator Richard Shelby
Mayor Terry Downey, Bayou La Batre
Mayor Jeff Collier, Dauphin Island
Jerry Carl, Mobile County Commission
US Senator Doug Jones
Chris Blankenship, Commissioner Alabama Department of Conservation and Natural Resources

15-OSAA

Comment 54

From: [redacted]
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Mobile Harbor Deepening and Widening Project
Date: Monday, September 17, 2018 1:24:50 PM

Attn: Ms. Jennifer L. Jacobsen

Dear Ms. Jacobsen:

I write today in full support of the proposed deepening and widening of the Mobile ship channel.

I have worked in the maritime industry for over 30 years, the last 20+ years in and associated with the Mobile Harbor. It is shocking to see the number of ships forced to wait to enter or leave the harbor because of the one way traffic imposed on larger ships and the resulting growing vessel queue. The cost of these delays definitely affects the competitiveness of this port and is having an adverse economic impact on the region.

From personal experience, I realize that deeper draft vessels for just the coal terminal will mean thousands of additional jobs for the region as shipper's will realize drastically favorable impacts on logistical expenses. Additional, non-traditional regional shippers will have access to export markets due to increasing productivity and lower supply chain costs.

Mobile is currently the 10th largest port in the US and with the connections to five Class 1 railroads future expansion is a certainty. The gains in business in my 20+ year of tenure, since moving to the area, have been unprecedented. The port means so much to the regional economy with a $22.4 billion dollar economic value and creates 135,000 direct and indirect jobs. All of these gains may be forfeit if this project does not come to fruition.

The ROI on this project certainly justifies it. It is my hope that the USACOE will see the remarkable value of this investment not just to the Port of Mobile but also to the region. Please grace the Port of Mobile and the Southeast region with a favorable decision.

Regards,

[redacted]

Comment 55

From:	Robert Pettie
To:	Mobile Harbor GRR
Subject:	[Non-DoD Source] COMMENTS MOBILE HARBOR GRR
Date:	Monday, September 17, 2018 1:21:58 PM
Attachments:	image002.png image003.png image004.png image005.png image006.png image007.png image008.png MBOA-Corps Responce.pdf

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Please see attached in response to your requests for public comments concerning seis on the mobile harbor GRR.

Robert Pettie

Director Construction Division

Ph: (251) 660-0132

Cell: (251) 623-1868

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From: Beverly Pettie
Sent: Monday, September 17, 2018 1:09 PM
To: Robert Pettie <robert@personsservices.com>
Subject: MOBA-Corps Responce

Beverly Pettie

Contract Administrator

Ph: (251) 660-0132

Email: beverly@personsservices.com <mailto:beverly@personsservices.com>

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Mobile Bay Oyster Alliance
P.O. Box 570
Theodore, Alabama 36590

September 13, 2018

U. S. Army Corps of Engineers Mobile District
Attention: PD-EC
109 Saint Joseph St
Mobile, Alabama 36602

Subject: Supplemental Environmental Impact Statement (SEIS) on the Mobile Harbor GRR, Channel Widening and Deepening

Dear U. S. Army Corps of Engineers Mobile District,

In response to your announcement for public comments concerning the subject draft SEIS, the Mobile Bay Oyster Alliance is providing comments and questions (attachment) for your review.

The Mobile Bay Oyster Alliance (MBOA) represents a rapidly growing coalition of organizations, business and individuals, all dedicated to the return of oyster habitat, oysters, and submerged aquatic vegetation to Mobile Bay. Our goal is creating a healthy shoreline for the return of this once thriving aquatic nursey system to Mobile Bay.

Our comments are largely in response to the vessel generated wave energy (VGWE) report dated June 2018 (Appendix A, Attachment A-4 of GRR). Ship wave waves are not con fined within the work area of the project. Wakes from shops will impact the shoreline for most of the length of the Bay. The GRR should address effects the Super Post Panamax size ships transiting the ship channel on a regular and cumulative basis for the life of the project.

Our concern is that the cumulative impact on Mobile Bay from ship waves over the last century has resulted in decrease water quality and loss of habitat-primarily vegetation along the shoreline. We believe that the increase in size and draft of larger ships resulting from this project will have significant negative impacts to Mobile Bay. We are asking that the USACE study in detail the environmental impact of all ship waves to the shore and include a permanent solution in the design of a deeper and wider ship channel.

Mobile Bay Oyster Alliance
P.O. Box 570
Theodore, Alabama 36590

Ship waves can be minimized by reduction in ship speed. Your report states in part that "a small change in speed will equate to a large change in VGWE" (emphasis added). The report also shows that VGWE will more than double due to the larger ships. There are several options for limiting speed while transiting the channel. Other ports have implemented speed reduction policies with success. We request that reduction to ship speed be studied to determine its impact to the shore line on Mobile Bay.

Your findings and recommendations to the above-Mentioned concerns are requested as well as to our comments attached.

Sincerely,

Mobile Bay Oyster Alliance

COMMENTS AND QUESTIONS: 17 September 2018

REFERENCE: ATTACHMENT A-4 [Vessel Generated Wave Energy (VGWE) Report by Richard Allen]

1. The VGWE Report reaches conclusions that are not supported by the calculations and statements in the report. Reading the report leads to a different conclusion than the one that is stated. Look at the data as follows:

    a. Table 3 – shows the bigger the vessel the larger the VGWE.

    b. Table 4 – shows the larger the vessel draft the larger the VGWE.

    c. Table 5 – shows inbound vessels produce larger VGWE than outbound vessels. Factors to consider are vessel draft and channel currents.

    d. Table 6 – shows the greater the vessel speed the larger the VGWE.

    e. Tables 9 and 10 – show an increase in the number of vessels calling on the port from 2944 (year 2025) to 3232 (year 2035). The projection shows larger vessels calling the port at the rate of 10/day by year 2035.

    f. Formula (13) - shows each increase in speed raises the VGWE by a factor of 2.4. A one knot increase in speed increases the wave energy 240 percent. Therefore, three knots increases wave energy 1380 percent.

    g. Figure 30 – you assume average speed of 10 knots which is not supported by the graphs. May be a way to make the calculations uniform but should not be used as a conclusion that the VGWE will not increase.

    h. Figure 31 – shows vessel speed increases the further South the ship is in the channel. In the Lower Bay channel the speed exceeds 13 knots even for the larger vessels.

The above data in your report does not support the statement in the Executive Summary of the GRR (see Comment #13 below) that reducing the number of vessels will cause less VGWE, and there will be no significant change in the total VGWE. On the contrary there will be more and larger vessels in the port by 2035 than there are now. In 2014 (reference Table in Appendix C) shows 1017 vessels called the port in year 2014. Compare that to the projected 1711 vessels by year 2035 (a seventy percent increase).

My conclusion is that the number and size of vessels (both) will increase and the total amount of VGWE will increase with or without the project. In addition, it's not total VGWE but speed and width of the vessels (which will be getting larger) that cause the impact to the shoreline. The study should show projected increases in VGWE due to projected growth, and should not make mis-leading statements based on comparisons of with/without project.

2. Wave energy is generated by acceleration of the water produced by the bow of the ship. If the ship is travelling against a current the wave will be larger than the wave produced by a ship going the same speed in knots travelling with the current. What is the channel current? The assumption of 10 knots for calculating VGWE is very low and should be reconsidered.

3. Report uses an average speed of 10.57 knots and an average draft of 8.96 meters to calculate VGWE. AIS Data sheets show larger vessels transiting mid-channel over 13 knots which I have verified using the MarineTraffic app. The calculations are based on a formula that calculates energy in a deepwater environment. Actual wave energy due to ship being in a trench will be increased, I assume, due to bottom and channel sides effect. This effect needs to be studied and the wave impacts to the shoreline stated in your final report.

4. Waves increase in height as they enter shallow water and break usually near the shore. This causes bottom disturbance and sedimentation to enter the water column. One ship causes several waves on each passing. Ship waves are larger and have more energy than the normal wind generated waves. The effect is an almost continuous disturbing of the shoreline making it unsuitable for plants. This effect has been occurring since ships have been transiting the Bay, but most of the impact of the ship waves appear to have occurred due to deepening of the channel over the last 80 years. For the USACE to assume this project will show minimum impact to the environment (based on the position that there will

be no more total VGWE) needs to be explained. The wave impact has been occurring for decades.

5. Tables 11 thru 14: Clarify how the number of vessels arriving in a year can differ from the number departing.

6. Tables 9 and 10 and Tables 11 thru 14: Why are the numbers of classes of vessels different between Tables 9 and 10 versus Tables 11 thru 14?

7. The Field Data was gathered over a short period of time during the drier months with river discharge at lower amounts. I assume channel current will be higher during wetter months.

8. Reference Appendix B: Why are the numbers of vessels (by class) different for Vessels Arriving versus Vessels Departing? Total number by class should be the same, just a difference in draft. The error occurs in Table B-3 thru Table B-8.

9. Reference Appendix C, Paragraph 2.2.3.1: There is an incorrect statement on the wave height as "0.02 ft to 0.15 ft". VGWE is not expressed in feet. The VGWE Report does not convert VGWE to wave height.

10. General Comment: The USACE is responsible for construction of the ship channel but does not appear to have any authority for establishing speed limits for ships transiting the channel. Is there a design speed that would cause damage to the channel due to propeller and water movement over the channel sides?

11. General Comment: It appears this project will straighten two bends in the main channel which can result in a possible increase in ship speed resulting in larger waves (VGWE).

12. General Comment: Mitigation measures should be implemented to reduce the ship wave impacts, especially to the shore. This could include vessel speed reduction. Large parts of the shore line are already bulkheaded to protect from erosion. Bulkheads hardly existed along the Bay shore until the 1970's, about the time the vegetation disappeared.

13. General Comment: The following statements are included in the Executive Summary Of the GRR/SEIS:

"Results of the wave climate assessments indicate that implementation of the project would result in negligible changes to the general wave climate. Additionally, the results of the analysis conducted for vessel generated waves show that there would actually be a reduction in ship generated wave energy when compared between the future With- and Without-Project conditions. This is because fewer vessels will be expected to call on the port in the future with implementation of the TSP, which results in less vessel generated wave energy affecting the study area."

The conclusion stated above assumes the same amount of shipping would be maintained With or Without the project. More likely, if the project were not built, the shipping industry could determine that another Port could be more cost effective and move the ships out of the Mobile Port, thus decreasing the number of ships in the future. The stated conclusion on wave climate is not based on any type economic analysis, should not be considered a factual result of a Vessel Generated Wave Energy Report, and should be removed from the Executive Summary.

Another possible conclusion is that a deeper, wider channel will result in more Port visits – as is currently predicted – and will result in more and larger VGWE in Mobile Bay. Data shows the number of ships will increase from average of 5/day in year 2014 to 10/day in year 2035.

USACE needs to do further studies before reaching conclusions that cannot be verified and supported. The conclusion above is in direct conflict with the projected increase in Port calls that, in other parts of the GRR/SEIS, are used to justify the project Benefit Cost Ratio (BCR). How can the number of ships double by year 2035 but the total VGWE not increase - if the project is constructed? Explain the logic used in the conclusion made in the Executive Summary.

14. General Comment: The GRR/SEIS should study coordinated operation of the Port with the Ship Channel operation. Has the USACE consulted with the Port Authority and Bar Pilots and studied the most efficient ways to operate the Mobile Harbor coordinating movement of ships thru the channel to eliminate loss of time? The USACE should study ways to minimize the wait time when ship berths are vacant while waiting for ships to transit the 27

miles of channel to arrive at the berth, and include results in the Channel Design. To put a passing lane at the Southern end of the channel does not appear to be the proper place to have ships pass to minimize berth waiting times. If a ship could transit the channel before the berth is vacated, stop in a location near the North end of the channel until the leaving vessel passes, then enter the Harbor, appears to be a more efficient way to operate. And the vessel speed up the channel would not be on the critical path for the most efficient operation of the Port's berths. A benefit would be the ability to limit vessel speed (to reduce waves) without increasing the cost to this project.

15. General Comment: One of the major effects of ship waves is the repetitive disturbance of water on a regular basis resulting in the inability of the oyster spat to attach to an object during a critical time of the oyster development. By year 2035 ten ships per day visiting the Port equals twenty sets of waves (ten arriving and ten departing) which means almost no period of calm in the shore environment (a constant storm). The SEIS should address the effect of ship's waves on oyster spat (and oyster reefs) in the expected environment - ships transiting the Bay on almost an hourly basis.

16. What is the relationship between ship size and wake size/energy/harm? How does speed (7, 10, 13 knots) affect this relationship? Draft?

17. What calculations were used as basis that recreational boat wakes are more damaging to Mobile Bay than wakes from ships? How was this this conclusion tested and where?

18. What is the magnitude (area) and duration of sediment plumes stirred from ship wakes? How does sediment plume affect SAV beneficial shore flora?

19. Which ships, that regularly transit Mobile Bay, generate the largest wakes from standard calculations?

20. Can vessel transit records be used to determine cumulative wake energy generated for individual ships and the impacts over past year or 5 years? Other periods?

21. What are speed limits or speed reduction programs for ships at other ports? Why are similar programs not being considered for Mobile Bay?

22. What is maximum speed of ships that does not create harmful wakes? How much additional time would be required to transit length of bay at no wake speed?

22. How much does a speed reduction cost?
What are the financial benefits such as fuel savings, engine wear?
What are ecological benefits?

23. How much have shorelines receded horizontally and vertically since 2000 or other periods (annual rate of loss)?
How much have ship wakes contributed shoreline erosion?

24. How much spoil has been removed from bay and transported to gulf for maintenance and expansion projects? (This robs sand from our shore indirectly)

25. Could spoil (either maintenance or from deepening/widening) be placed between channel and shore to produce a berm to diminish wave energy?
What would be cost and impacts (beneficial and harmful)?
Where would be ideal placement and configuration?

26. What are other measures to mitigate ship wake harm?

27. Can property owners be compensated for beach erosion caused by wakes or deficits from spoil transport to gulf.

28. What percent of Mobile Bay shore is armored by vertical walls/rock?

29. What is the effect of ship speed in the channel related to damages to sides of the channel due caused by the ship propulsion system (prop wash)? Are maintenance dredging costs increased? The Corps is aware that the channel slopes are changing and causing an overall deepening of the Bay, possibly affecting the shorelines. With miles of shoreline armored or bulkheaded to prevent erosion to property along the shoreline, is the result a deeper Bay and increase in the erosion rate at marsh and unprotected shoreline?

30. Is increased VGWE good for the Bay environment?

31. The ship channel was deepened to 35 ft. in the 1940's. Grasses along much of the shoreline had disappeared by the 1960's. The Bay was also mined for oyster shells for the Interstate Highway during the 1960's and 1970's. Can the effects of these events be evaluated to determine damages that may have been caused to the vegetation on the shoreline?

32. Gilliard Island was created from the construction of the Deer River Channel. When a ship passes the East side of Gilliard Island headed South the wave energy gathers and rolls off toward the Western Shoreline. What is the increase in VGWE due to the Gilliard Island effect? Can this effect be eliminated either by slowing the ships or construction of a barrier in the Bay as a part of this project, possibly using dredged material?

33. Restoration of natural shoreline grasses has been successful in Tampa Bay. The restoration effort includes projects with MacDill Air Force Base to restore oyster reefs. Can lessons learned from Tampa Bay be used in Mobile Bay to increase shoreline grasses and oyster habitat? Can these lessons be incorporated into the Harbor Deepening Project without causing significant cost increase but resulting in environmental improvements? As a minimum can the Corps include measures in the Harbor Deepening Project to stop further damage to shorelines?

34. Ship waves cause increased turbidity at the shoreline. Does the Corps disagree with this statement?

COMMENTS AND QUESTI ONS:

Andy Depaola

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What calculations were used as basis that recreational boat wakes are more damaging to Mobile Bay than wakes from ships? How was this conclusion tested and where?

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How much does a speed reduction cost?
What are the financial benefits such as fuel savings, engine wear?
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What would be cost and impacts (beneficial and harmful)?
Where would be ideal placement and configuration?

What are other measures to mitigate ship wake harm?

Can property owners be compensated for beach erosion caused by wakes or deficits from spoil transport to gulf.

What percent of Mobile Bay shore is armored by vertical walls/rock?

Design. To put a passing lane at the Southern end of the channel does not appear to be the proper place to have ships pass to minimize berth waiting times. If a ship could transit the channel before the berth is vacated, stop in a location near the North end of the channel until the leaving vessel passes, then enter the Harbor, appears to be a more efficient way to operate. And the vessel speed up the channel would not be on the critical path for the most efficient operation of the Port's berths. A benefit would be the ability to limit vessel speed (to reduce waves) with no cost to this project.

14. General Comment: One of the major effects of ship waves is the repetitive disturbance of water on a regular basis resulting in the inability of the oyster spat to attach to an object during a critical time of the oyster development. By year 2035 ten ships per day visiting the Port equals twenty sets of waves (ten arriving and ten departing) which means almost no period of calm in the shore environment (a constant storm). The SEIS should address the effect of ship's waves on oyster spat (and oyster reefs) in the expected environment - ships transiting the Bay on almost an hourly basis.

COMMENTS AND QUESTIONS:

Andy Depaola

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27. Can property owners be compensated for beach erosion caused by wakes or deficits from spoil transport to gulf.

28. What percent of Mobile Bay shore is armored by vertical walls/rock?

1. What effects would a vessel speed reduction program (VSRP) on ships entering and exiting Mobile Bay, have on maintenance dredging on the ship channel. Would less vessel generated wave energy (VGWE) cause less damage to the ship channel side walls, requiring less future maintenance? Especially considering your estimates for the number of ships calling on Mobile by the year 2025 and 2035.

2. VGWE from ship has had negative impacts on Mobile Bay for years. With or without the completion of this project, those impacts will continue, and will continue to increase based upon increased ship traffic. The corps must study **existing** impacts, as well as future impacts, especially in south Mobile Bay.

3. The **"less impact"** if project is done statement is at best not factual. The **"less more"** explanation of this mathematical calculation is not based upon factual data. If you increase the volume of ships either way, then you create **"more"** impact, not **"less".**

4. We also request the Corps examine the disappearance of Submerged Aquatic Vegetation (SAV) from shorelines of Mobile, Bay, which are affected by VGWE. Also examine why areas of Mobile Bay not affected by VGWE, have SAV. We content this loss of SAV is directly related to the Corps previous dredging projects, which have allowed larger draft vessels to utilize the ship channel, thus creating more impactful VGWE which impacts the shorelines. This will continue, with or without this project, and we feel the loss of SAV from the shorelines of Mobile Bay, is owned by the Corps.

5. The Corps statement that high turbidity levels in Mobile Bay is "mainly caused by recreational boaters" is based on an opinion, with no scientific study, nor any type of boat count, commercial vs recreational, with which to back it up. Recreational boating has **no** impact on the turbidity levels of Mobile Bay. A water turbidity study should be conducted at several locations in Mobile Bay, examining the impact of recreational boat traffic vs. VGWE from large vessels. This study should also focus on affected turbidity levels near the shorelines, versus open bay waters, when these areas are impacted by VGWE

The Mobile Bay Oyster Alliance appreciates the opportunity to submit our comments to the DRAFT Integrated General Reevaluation Report {GRR). We support the *effort* to expand and deepen the Mobile Ship Channel, but have concerns that the evaluation of the potential impact of Vessel Generated Ship Wakes (VGSW) is incomplete.

The detrimental impact of VGSWs has been documented through numerous studies, and a casual search of videos online produces many examples of physical damage caused by these destructive forces. The force generated by VGSW is different than the force generated by wind-driven waves, and the GRR reflects an effort to study the effect. However, the study only evaluated VGSW in the northern half of Mobile Bay, and in an area in which vessels routinely slow as they approach the Mobile River channel. The GRR recognized that vessels routinely travel at higher speeds in the southern and middle reaches of Mobile Bay, but sensors were only placed in the northern reach, where vessels are slower. Force is the result of mass times speed, so logic dictates that only measuring VGSW in the northern reach where ships are slower will result in an incomplete analysis.

The federal government recognizes a difference between southern and northern Mobile Bay. Indeed, the National Oceanic and Atmospheric Administration {NOAA) generates different weather forecasts for southern and northern Mobile Bay. There are important differences in a number of hydrographic characteristics, such as depth and width, between southern and northern Mobile Bay. Combined with the documented higher vessel speed, the forces generated by the higher speed, coupled with the different hydrographic characteristics, are likely to have a different impact than those studied in northern Mobile Bay.

In consideration of the above, we are concerned that the potential result of larger and more forceful VGSWs has not been adequately considered, particularly as it relates to southern Mobile Bay. Based on our own first-hand observations of large VGSW, we believe it likely that there will be an increase in turbidity, as well as the potential for physical harm to grasses, oyster spat attempting to become cemented to various substrates, and potentially other environmental impacts. Further, and perhaps more importantly, the sporadic nature of these waves may also present a danger to small boats, primarily kayaks, close to shore as the waves rise rapidly in height shortly before impact with the coast.

Again, we are in favor of the project, but believe that appropriate mitigation steps have not been considered in light of the fact that sensors intended to measure the effects of VGSW were clustered only in northern Mobile Bay. We are asking that additional sensors be placed in the southern half of Mobile Bay so that the study can reflect a more representative sampling and better understanding of the potential harm.

If, as we believe, the additional study results in a different understanding, we believe the harm from large VGSW can be mitigated without additional expense. We believe that as additional data is collected, careful attention should be given to the environmental conditions present at the time of the ship transit. We believe that wind speed and direction, coupled with tidal conditions, also can play a role in either minimizing or aggravating the size and force of the waves. We believe this based upon our own observations that the same ships traveling at the same speed, may or may not produce a large, visible VGSW. It is our hope that at the end of the study, a set of reasonable parameters can be established that would allow ships to travel at higher speeds than during the periods in which environmental conditions may not allow the higher speed VGSW to dissipate before it reaches shallower water. We believe an understanding of these effects would help avoid imposing a needlessly restrictive governmental regulation "one size fits all - all ships must slow" that would affect our vital shipping industry.

The failure of the Draft GRR/SEIS to sufficiently identify the availability of maintenance disposal capacity for the Tentatively Selected Plan (TSP) for the next 50 years is a major concern. Since the report does not adequately analyze the disposal capacity deficit issue, the future environmental impacts resulting from maintaining the channel also cannot be adequately identified and evaluated. Therefore, the Supplemental Environmental Impact Statement component of the report does not fully comply with the National Environmental Policy Act for the full 50-year period of analysis identified in the report.

Erosion of Mobile Bay's western shoreline is a serious continuing issue. Long-term bayfront property owners have repeatedly stated they have observed large waves created by passing ships. Instead of giving credence to the validity of landowner statements, the Corps has relied entirely upon in the results of computerized modeling to conclude ship wakes do not represent a serious issue. Because of the public's concern over ship generated waves the Corps, Coast Guard, and Port Authority should evaluate imposing speed limits on the larger deep draft ships, particularly if fully loaded, to reduce the magnitude of bow waves from passing vessels.

The report states the Tentatively Selected Plan (TSP) has a Benefit-to-Cost Ratio of 3.0 and will annually produce over $34.5 million of Excess Benefits over Costs. A portion of the Excess Benefits should be directed to beneficially use dredged material to pursue various restoration projects. Example projects could include improving Mobile Bay's oyster resources and pursuing measures to prepare other important environmental resources (such as marsh areas) to better withstand the future effects of Sea Level Rise.

Thin layer disposal of material dredged from the Bay Channel affects thousands of acres of Mobile Bay bottoms each year. The report's Tentatively Selected Plan (TSP) to deepen the channel recommends the additional maintenance dredged material also be disposed in the bay over the next 50 years. But the report provides no adequate scientific information to support the Corps contention that thin layer disposal benefits Mobile Bay's environment. Instead, it appears open water disposal within the bay is really being driven by the intent to reduce project costs by no longer having to transport the material offshore for disposal in the Gulf. The entire return to thin layer disposal in the bay is based upon two unsubstantiated, extremely sketchy statements contained in the July 2014 Environmental Assessment entitled "Modification to Mobile Harbor Operations and Maintenance Addition of a Long-Term Open Bay Thin-Layer Disposal Option". Detailed information from independent studies and literature to validate the Corps allegation that thin layer disposal is beneficial for Mobile Bay must be added to the report.

Oysters are a major "indicator species" of the overall health of Mobile Bay. Historical NOAA catch data for Alabama from 1950 through 2016 show the total annual oyster harvests from Alabama waters have experienced a significant continuing decline during the last 10 years. To provide a true representation of the existing quality of oyster resources within the Study Area, the report should clarify that the recent four years (2013, 2014, 2015, and 2016) selected to develop the Study Baseline represents a significant low point in both oyster production and reef condition over the past 66 years. It is worth noting that the decline in oyster production, which is centered around Mobile Bay, coincides with the Corps return to open water disposal of dredged material in the bay in 2014. The report should devote more discussion to the current deteriorated condition of Mobile Bay's oyster resources, including additional modeling work dealing spat movements, effects on salinity regimes, predation, etc.

The primary reason given for filling the relic shell mining holes located in the midportion of Mobile Bay is that these areas experience periods of low oxygen. However, during periods of extreme winter cold, when portions of the bay have been known to freeze and cause winter fish kills, these deep areas also provide temperature refugia that benefit fish fleeing the lethal colder shallow waters. However, the document does not address the potential refugia benefit that would be foregone if the areas are filled with dredged sediments.

The report should explain how dredged material disposal capacity needs for the Tentatively Selected Plan (TSP) will be satisfied over the entire 50-year economic life of the project. Table 4-5 shows the remaining annual disposal capacity for the open water thin layer disposal sites in Mobile Bay (Figure 4-6) to be 59,594,000 cy after 20 years of use. Assuming the average annual dredging volume for the Bay Channel TSP consistently remains at 4,500,000 cy/year during the final 30 years of the project's 50-year economic life, a total of 135,000,000 cy will have to be dredged. Subtracting the remaining disposal site capacity of 59,594,000 cy from the projected total dredging requirement of 135,000,000 for the final 30-year period shows the Bay Channel segment will suffer from a disposal capacity deficit of 75,406,000 cy that will become increasingly more difficult to overcome and will likely increase the future cost of the maintenance program. The report provides no information as to how the Corps and the Alabama State Port Authority plan to satisfy the future dredged material disposal needs of the TSP after the initial 20 years of maintenance. The potential adverse impacts to Mobile Bay from future dredged material disposal practices are too significant for the report to ignore the significant importance of the dredged material disposal capacity deficit problem the TSP will experience over the total 50-year period of analysis.

Figure 4-9 must be revised to include the 1,200-acre dredged material disposal island planned for the Upper Bay south of the Causeway. The island project was approved for funding on December 9, 2015 by the federal Gulf Coast Ecosystem Restoration Council at a cost of $2.5 million. Initiation of the study has now been delayed 2-3/4 years, without any explanation being provided. The Corps and the Alabama State Port Authority were actively pursuing the proposed island project until the public began asking questions about the proposal and whether it would truly represent a beneficial use of dredged material. By failing to include the 1,200-acre island on Figure 4-9 and discussing it in the report, it appears the Corps is attempting to prevent the public from being made more aware of the proposal to construct the island. The public is

concerned the Corps is simply delaying starting the dredged material island study until after the current report to deepen the ship channel is finalized.

The water quality modeling analysis must be reconsidered to evaluate a multi-year drought condition to adequately determine if the Tentatively Selected Plan (TSP) will alter salinity regimes within Mobile Bay to the point that oysters, submerged aquatic vegetation, and other specific environmental resources could be adversely affected. The greatest prolonged changes in salinity in Mobile Bay occur during periods of sustained low flow that are experienced during multi-year drought events affecting significant portions of the Mobile Drainage Basin. The water quality model must be rerun to generate the projected "worst case" salinity regimes that could reasonably be expected to occur in the foreseeable future under the TSP during a multi-year drought. That approach is necessary if the potential effects of the TSP on salinity levels, SAV, oyster drills, oysters, and other key environmental resources in Mobile Bay are to be adequately disclosed in the report.

The report does not explain why disposing of maintenance dredged material in open water over thousands of acres of Mobile Bay bottoms over extended periods of time during dredging operations will not increase turbidity values (i.e., a measure of how muddy the water is) above ambient levels. On page 5-14, the statement is made that "...there would be no expected increase in the concentrations of the turbidity as a result of the implementation of the TSP." Given the magnitude of the annual maintenance dredging operations and the fine-grained nature of the sediments dredged, this impact statement does not make sense. The report should be expanded to better explain why turbidity levels in Mobile Bay will not be increased during sustained periods of open water disposal of dredged material.

Mobile Bay Oyster Alliance
P.O. Box 570
Theodore, Alabama 36590

Observation from the Marine Traffic.com app for the past three months indicate average speed in the ship channel is approximately 12 knots (13.8 mph). The length of the ship channel is approximately 30 miles, therefore currently the time needed for a vessel to enter or exit is 2.17 hours.

Currently vessels must wait offshore until the channel is clear of other vessels, due to the inability to meet or pass other vessels due to channel width constraints. Therefor, currently the total time necessary for port entry is approximately five hours.

With the proposed projects widening of the channel, ships will be able to meet or pass at the same time, negating the need to wait offshore, or at the port, until the channel is clear of other vessels.

If the speed of vessels in the channel was reduced to 5 Knots (5.75 MPH) the time necessary to transit the length of the channel would be approximately five hours.

Vessel air emissions would be greatly reduced, VGWE would be greatly reduced, and no additional cost to the shipping industry would be incurred.

Comment 56

From: Peter Bradley
To: Mobile Harbor GRR
Cc: [redacted]
Subject: [Non-DoD Source] Mobile Bay
Date: Monday, September 17, 2018 1:12:05 PM

Dear All

I am the Chief executive officer of Javelin Global Commodities ("Javelin") and we presently use Alabama State Docks, Mcduffie Terminal for export of thermal coal.

We are partially owned by Murray Energy Corporation and have a long-term export marketing deal with them from the 17 Longwall operations, producing more than 65 million tons of thermal coal across the United States. Javelin exports thermal coal through 8 different terminals in the USA and Mexico, and the largest single exporter of thermal coal out of the USA.

Javelin is highly supportive of this dredging project for the following reasons.

The growth in demand for exports in the USA is focused on Asian counterparties from Indian Sub-continent and South East Asia, and for USA to compete with closer located sources to the Asian consumers, from South Africa, Indonesia and Australia we need to ship on the largest and most efficient capsized vessels, and to ship the maximum amount of cargo on these ships. At present with only 45 feet of draft it is very difficult for shipments out of Mobile to compete into these markets and most of our shipments go to local users in South America, Caribbean and Europe. This will negate a highly efficient port with multiple railroad connections to compete in the world market and as such growth its export volumes. Any increase in exports out of Mobile will directly increase employment both in the Coal mining industry, at the railroads and at the port creating economic benefit across many levels and States within the USA.

In addition, due to the width of the channel, it concreates more congestion and therefore more cost in shipping as vessels have to wait to enter and leave the Mobile Bay area.

Lastly I would like to add that if this project was approved I believe we could increase our volumes shipped through Mobile by more than 100%.

If you have any questions or concerns feel free to contact me directly.

Best regards

Peter Bradley

CEO

Javelin Global Commodities (UK) ltd

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22 Carlisle Place

London SW1P 1JA

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Comment 57

From: Kerri Camp
To: Mobile Harbor GRR
Cc: [redacted] gmail.com [redacted]; [redacted] gmail.com
Subject: [Non-DoD Source] Dauphin Island Erosion
Date: Monday, September 17, 2018 12:56:05 PM
Attachments: image001.png
Importance: High

To Whom It May Concern:

I am writing this email on behalf of our family who own three homes on Dauphin Island: [redacted] and [redacted]. It is extremely important that you hear our concerns about the dredging around Dauphin Island and the harm it is causing to the island. Our three homes are income producing vacation rentals. We have invested significant monies into building these three homes and would suffer significant harm if the dredging issue is not resolved with the appropriate rememdies.

The dredging is causing changes in the saltwater levels which can negatively impact fisheries including spawning. It is also contributing to shoreline erosion do to the increased ship wake. The shoreline is important to maintain because it protects us from storms, provides beautiful beaches, and impacts wildlife. The grass beds are also being lost due to the increased ship wake and dredging activities. These grass beds provide a food source for many of our sea life along with shelter for them and improved water quality. The dredging is also impacting other sea life such as the manatees. The poorly managed dredging can kill fish and create cloudy water conditions affecting seagrass growth and fish feeding.

To mitigate for the historic and ongoing erosion of Dauphin Island and the smaller Sand/Pelican Island to the southeast, two separate but related actions are needed;

* During maintenance dredging of the Bar Channel, all dredged sand should be placed in the shallow waters (i.e., between 0 to <15 feet) atop the shoal stretching between Sand Island Lighthouse and the east end of Sand/Pelican Island. Essentially 100% of the sand placed in the shallow waters along the top of the submerged shoal should be rapidly incorporated into the natural littoral drift system and moved to restore Sand/Pelican Island and nourish Dauphin Island's eroding Gulf shoreline. The Mobile District of the Corps already has the necessary Congressional authority to undertake that mitigation action as provided by Section 302 of the Water Resources Development Act of 1996. Section 302 was specifically enacted to modify the Mobile Harbor project to allow dredged material to be beneficially used and and to pursue environmental restoration. All the Mobile District has to do is demonstrate the will to apply that existing Congressional authority to modify current maintenance practices for the Bar Channel. However, this mitigation action would only mitigate for the present and future erosion of Dauphin Island.

* To mitigate the historic shoreline losses of Dauphin Island, a much larger project action is needed. That mitigation measure should move by dredging to the Dauphin Island shoreline the millions of cubic yards of sands the Mobile District has removed from the Bar Channel since 1999 that have accumulated within the so-called Sand Island Beneficial Use Area (SIBUA). Those beach quality sands originally came from the Fort Morgan Peninsula and would have been transported by littoral drift to Dauphin Island if the Mobile District had not intercepted the sands by maintenance dredging of the Bar Channel. The millions of cubic yards of accumulated sands now sit a short distance offshore in waters too deep for them to rejoin the littoral system by natural wave and current action. It is these sands that were removed from the littoral drift system that have contributed to the present "sand starvation" of Dauphin Island. The Town of Dauphin Island developed the design details of a project in 2011 that would use around 4 million cy of these sands at an estimated cost of $59 million to restore the island's eroded shoreline which could be readily implemented and/or expanded with little further study.

Such a mitigation project could be paid for by either of two viable approaches:

1. According to the Draft GRR/SEIS, the recommended Mobile Harbor deepening project is predicted to generate average net benefits of $34.5 million per year in excess of cost. Thus, mitigation could be paid for with the benefit stream predicted be generated in just two years of operation of the deepened channel. All the Mobile District has to do is recommend this mitigation measure be included in the project recommendation to deepen Mobile Harbor.
2. Alternatively, the Mobile District could proactively work with the Alabama State Port Authority, the Governor of Alabama and other parties to select for implementation Project ID No. 92 ("West End Beach and Barrier Island Restoration Project") from the list of Alabama Coastal Restoration Suggested Projects being considered by the Alabama Gulf Coast Recovery Council. That approach would allow the mitigation project to be paid for with Deepwater Horizon Oil Spill related monies instead of being charged to the Mobile Harbor Deepening Project.

Regards,

Kerri M. Camp, PhD

Associate Dean

Soules College of Business

903-565-5660

BUS 128

Your Success. Our Passion.

Comment 58

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEI
Date: Monday, September 17, 2018 12:25:59 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Mobile , Alabama 36609

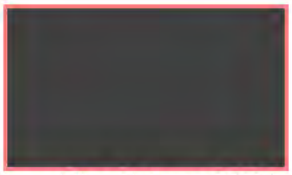
<Blockedhttps://u1584542.ct.sendgrid net/mpss/o/-gA/ni0YAA/t.2ky/lCHIDtKFQneATviaGTbLMg/o.gif>

Comment 59

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 12:19:08 PM

David Newell,

Gentlemen,
Mobile Baykeeper, Mayor Jeff Collier and other intelligent people have communicated the erosion detriment affecting Dauphin Island and other coastal sites unless the dredging material is placed in appropriate areas. Additionally further expansion and continuation of the Mobile Ship Channel dredging is likely to be detrimental to the nature of the Bay water and affecting environmental conditions of sea life and grass beds. Please consider their recommendations to prevent shoreline erosion by appropriate placement of dredge materials and research on the expected results affecting the the remainder of the Mobile Bay water conditions.
Thank you,



mobile, Alabama 36605

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Comment 60

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 12:16:31 PM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

The study only includes one year of weather data as the base of its water quality models. Given how frequently and drastically these impact Mobile Bay watershed this is inadequate. The Corps must include at least three years of data to show how severe weather impacts the study's results;

The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

Mobile, Alabama 36608

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Comment 61

From: Shelby Stringfellow
To: Mobile Harbor GRR
Cc: [redacted]; [redacted]
Subject: [Non-DoD Source] Mobile Harbor Study
Date: Monday, September 17, 2018 12:13:59 PM
Attachments: image001.png
image002.png
Montgomery Chamber of Commerce Comments - Mobile Port Widening.pdf

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The Montgomery Area Chamber of Commerce (Chamber) submits the attached comments pursuant to a request published in the Federal Register on July 16, 2018 (83 Fed. Reg. 35637) in support of the Tentatively Selected Plan (TSP) identified in the Draft Mobile Harbor, Mobile, Ala. Integrated General Reevaluation Report (GRR) with Supplemental Environmental Impact Statement (SEIS).

Shelby L. Stringfellow

Director
Corporate Development
Montgomery Area Chamber of Commerce
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41 Commerce Street
Montgomery Alabama 36101
Office: 334-240-9420

Cell: 334-312-0759

sstringfellow@montgomerychamber.com <mailto:sstringfellow@montgomerychamber.com>

MONTGOMERY
AREA CHAMBER OF COMMERCE

September 17, 2018

The Montgomery Area Chamber of Commerce (Chamber) submits the following comments pursuant to a request published in the Federal Register on July 16, 2018 (83 Fed. Reg. 35637) in support of the Tentatively Selected Plan (TSP) identified in the Draft Mobile Harbor, Mobile, Ala. Integrated General Reevaluation Report (GRR) with Supplemental Environmental Impact Statement (SEIS).

The Chamber is a fully-integrated economic development organization, dedicated to both job creation and job preservation. Its major initiatives are:

- Recruitment of industry and the expansion of existing businesses.
- Development and nurturing of entrepreneurial, minority, and small businesses.
- Tourism and convention development.
- Military and federal affairs.
- Cyber and Innovation.

The Chamber also champions a broad array of community development issues as they relate to its mission, including governmental affairs, public education, workforce development and talent recruitment, leadership development, and quality of place.

The Chamber has been instrumental in the recruitment of Hyundai Motor Manufacturing of Alabama, and a number of its Tier-1 and Tier-2 suppliers to Alabama. Hyundai's investment in Alabama represents the first U.S.-based assembly plant for its parent company, Hyundai Motors. Hyundai has suppliers and vendors located in 38 counties in Alabama, all of which are a part of an ever-growing automotive industry that employs 40,000 Alabamians.

Alabama is the No. 3 exporter of automobiles in the U.S. with shipments to over 80 countries. Automobiles are Alabama's top export with $7.75 billion in revenue in 2017 and trends in the 2017 data indicate a growing demand for Alabama-Made automobiles.

The Port of Mobile is the 10th largest seaport in the United States and has been identified as the fastest growing container terminal in North America. More than $700M has been invested in expansions which include steel container terminals, coal terminal expansion, rail ferry terminal, warehouse space, two "super Post-Panamax" cranes and an automobile roll-on/roll-off terminal.

We are very much concerned that the trend to larger, deeper-draft vessels will leave the Port of Mobile at a competitive disadvantage due to transportation delays and inefficiencies stemming from the limited channel depth and width. We are also concerned that these inefficiencies will negate the gains realized by the construction of the AutoMobile International Terminal, intended to transform the Port of Mobile into a world class roll-on/roll-off automobile processing facility.

The Port of Mobile has enhanced the competitiveness of several companies in Alabama – including the Hyundai operation in Montgomery, the Mercedes-Benz operation in Tuscaloosa, and the Toyota operation in Huntsville. The success of these plants has attracted major suppliers to the state. The level of employment and output of each supplier is directly related to the overall output of finished automobiles by its customer.

POST OFFICE BOX 79 41 COMMERCE STREET MONTGOMERY, AL 36101
TEL: 334.834.5200 FAX: 334.265.4745 MACC@MONTGOMERYCHAMBER.COM WWW.MONTGOMERYCHAMBER.COM

We are cognizant of the importance of conducting a thorough due diligence when weighing the impacts, both positive and negative, of the tentatively selected plan to modernize the Port of Mobile. At the same time, we want to ensure that the positive impact that the Port of Mobile has on Alabama, and the nation as a whole, is accurately quantified in this process.

Sincerely,

Randall L. George
President

Comment 62

From: [redacted]
To: Newell, David P CIV CESAM CESAD (US)
Subject: [Non-DoD Source] My comments on the Mobile Ship Channel expansion DSEIS
Date: Monday, September 17, 2018 11:54:54 AM

David Newell,

Dear District Commander,

I am writing to express my concern regarding the Corps' study results indicating no impact on the environment from a major expansion project for the ship channel. The Corps needs to address the following items to ensure the study is comprehensive enough to determine impacts and doesn't underestimate the true impact.

My concerns include:

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The Corps must include studies about how pathogens, harmful algal blooms, and invasive species will enter Mobile Bay through a deeper channel;

The Corps must thoroughly review how the proposed project will generate new growth opportunities associated with the port that could have indirect impacts to our natural resources;

Ship wake analyses must be improved to include more accurate information (realistic ship sizes, weights, etc). The Corps needs to study the impacts on our aquatic life (oysters, seagrasses, etc.) and our shorelines from wave energy;

The Corps must work with scientists to ensure the oyster assessment is more comprehensive. The Corps needs to look at how young oysters move and show how the presence of predators (oyster drills) may increase with changes in salinity;

The Corps needs to more comprehensively investigate impacts into the wetlands, seagrasses, fish, and aquatic resource assessments. For instance, the Corps has not studied how losses to seagrasses from higher salinity will affect the species that rely on them like the West Indian Manatee and waterfowl;

The Corps needs to recognize impacts to low income, minority communities as results show an increase of truck traffic by 25%;

The Corps must, as required by law, acknowledge past impacts on air quality and shoreline erosion since 1980 (the last environmental impact study conducted);

The Corps must consider creating a Dredge Management Plan that includes all proposed projects in the Mobile Bay area;

In conclusion, the Corps' finding of "no impact" on Mobile Bay's sensitive environment is very concerning given the magnitude of the proposed project. Thank you for your consideration and response to each of these comments. By thoroughly studying and developing a comprehensive plan for the port expansion, we can grow responsibly and mitigate any unavoidable impacts to the natural resources that support our economy and quality of life.

Sincerely,

[redacted]

[redacted]
Fairhope, Alabama 36532

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Comment 63

From: [redacted]aol.com
To: Mobile Harbor GRR
Subject: [Non-DoD Source] Comments on Dauphin Island Erosion
Date: Monday, September 17, 2018 11:49:28 AM

Dear Col. Sebastien P. Joly:
Because of the strong likelihood of further damage to Dauphin Island and other barrier islands to the west from expanded dredging in Mobile Bay, please consider the following suggestions to the impact statement to better reflect reality:

Results from the Corps numerical modeling study alleging 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 impacts of shoreline erosion on sea turtle nesting should be discussed.

The Corps needs to develop a Master Plan and associated Environmental Impact Statement that would identify all work required to expand and maintain Mobile Harbor for at least the next 20 years.
Sincerely yours/
Roger L. Tanner
Florence, AL
Executive Committee Member,
Alabama Chapter, Sierra Club