## ENVIRONMENTAL IMPACT STATEMENT APPENDIX A: Comments Received During Review of November 2010 Draft EIS and Draft GRR

SAVANNAH HARBOR EXPANSION PROJECT

Chatham County, Georgia and Jasper County, South Carolina

January 2012



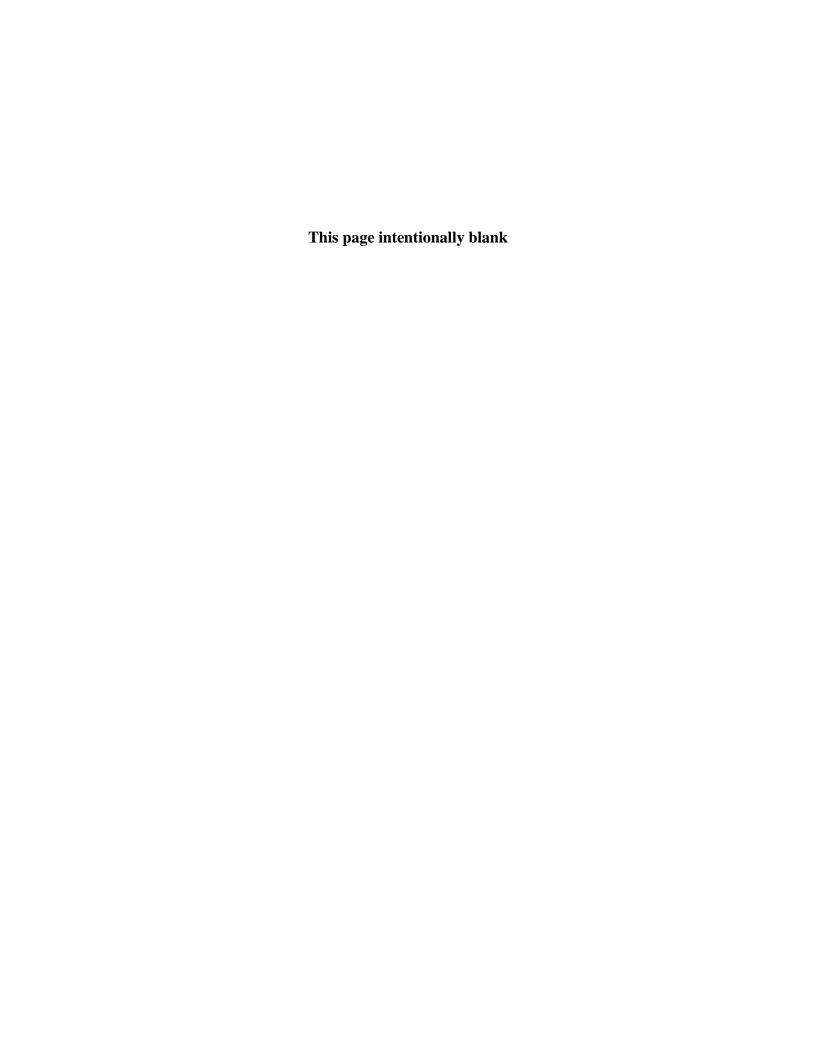
US Army Corps of Engineers Savannah District South Atlantic Division



# Comments Received During Review of November 2010 Draft EIS and Draft GRR

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### **Summary of Comments Received on Draft EIS and GRR**

Upon distribution of the Draft EIS and GRR on November 15, 2010, Savannah District received over 1,100 written letters, e-mails, and dictated responses from Federal and state agencies, environmental groups, civic organizations, and private citizens.

The majority of the 684 commenters provided general statements in support of the project. A demographic summary of the statements of support is provided below in Figure 1.

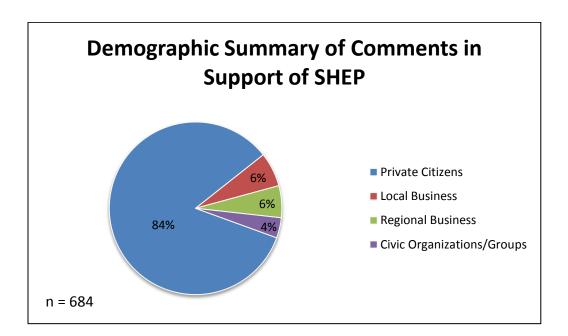


Figure 1

Many commenters submitted more than one comment. As a result, the District received a total of 2,540 comments. The comments contained in the letters were generally grouped (despite some overlap) into four broad categories as follows: Support the Project (684), Environmental (1,247), Economics (356), and Engineering (258). Figure 2 shows the distribution of the comments.

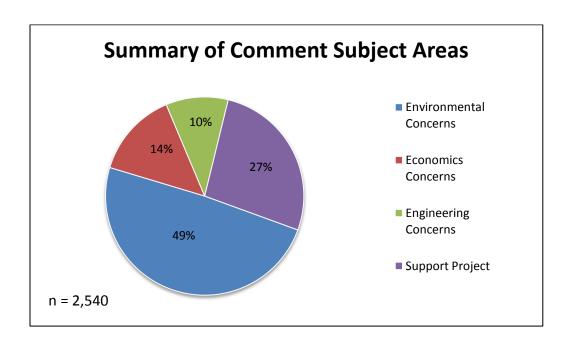


Figure 2

As illustrated above, the majority of the comments were related to the environmental analyses and predicted impacts associated with the proposed project. In general, the environmental comments focused on two major issues: the proposed monitoring and adaptive management plan and the impacts to endangered species, specifically the Shortnose sturgeon. The District received comments from all the Federal Cooperating Agencies (Department of Interior (DOI), Department of Commerce (DOC), and the Environmental Protection Agency (EPA)) regarding the post-construction monitoring period. Both the DOI and EPA requested that the monitoring period be extended to as much as 10 years. The Federal Cooperating Agencies and the state resource agencies, in particular the Georgia Department of Natural Resources Environmental Protection Division (GA DNR-EPD), requested additional elements be included in the monitoring plan to ensure the actual impacts of the project do not exceed those expected for a particular resource.

Several resource agencies expressed concern that a 5-year monitoring period may be too short to adequately test the performance of the mitigation features. Some of the project's mitigation features are designed to address impacts that only become evident during low river flows. River flows are dependent upon climate conditions and it is possible to go through a 5-year monitoring period without experiencing substantial low flows. The risk of not experiencing

significant low-flows is greatly reduced over a 10-year monitoring period. Historic records from the Savannah River at the Clyo streamflow gage indicate that 5 years of above-average flows are not uncommon, but even during so-called "wet decades" there have always been a few years of below normal flow.

To address these concerns, the Corps added elements to the monitoring plan and lengthened the monitoring period over for some elements to as much as 10 years. Elements added to the plan include determinations of the location of the freshwater interface, addition of a twelfth wetland monitoring site, expanded monitoring of CDF effluent, and additional biological monitoring in the CDFs. The Corps believes the adaptive management plan, as proposed, would allow for any necessary changes to the project should the environmental impacts exceed what is predicted or the mitigation features do not function as intended.

A number of commenters expressed concern about funding assurance for the construction of the mitigation features, construction of any needed adaptive management features, and long term operation and maintenance of the mitigation features. To address their concerns, the State of Georgia has indicated that it would place costs for mitigation feature post-construction monitoring and adaptive management in an escrow account so the funds would be available if/when needed. The District intends to obtain its share of the adaptive management costs at the same time as the funds for the dredging work are obtained. By obtaining the Federal funds as the construction progresses, they would be available to make adjustments to the project's mitigation if/when needed. In this way, all the funds identified in the final project documents for adaptive management would be obtained by the time the dredging is complete. With regard to operation and maintenance of the mitigation features, the Corps' highest budget ranking is given to funding requests for operation of mitigation features.

In addition to the monitoring plan, a large number of comments (particularly from the DOC) were concerned with the proposed mitigation for impacts to Shortnose sturgeon habitat. In the Draft EIS, the project proposed to compensate for adverse impacts to Shortnose sturgeon habitat by constructing a horseshoe rock ramp so sturgeon could move around the New Savannah Bluff Lock and Dam near Augusta, Georgia to historic upstream spawning areas. In their comments, the DOC indicated that the proposed design was inadequate because the percentage of river flow passing through the structure (5%) did not provide adequate assurance that Shortnose sturgeon could find or use the structure. Based on these comments, the Corps held a fish passage workshop and invited representatives from the Federal and State natural resource agencies, fishway engineers, and academic experts to review the design. As a result of the input provided at the workshop and a follow-up site visit, the Corps revised the rock ramp design to accommodate 100% of the river flow a majority of the spring spawning season, while not increasing flooding upstream and maintaining an acceptable pool level. The revised design is presented in Section 5 and Appendix C of the EIS.

Both the GA DNR-CRD and the City of Tybee Island submitted comments regarding the proposed beneficial use of dredged materials, i.e. nearshore placement of new work sediments from the entrance channel. GADNR-CRD's initial finding was that the SHEP is generally

consistent with the enforceable provisions of the Georgia Coastal Management Program. However, certain changes were requested regarding the dredged sediment placement plan, viz., the State expressed concern about the proposed deposition in the nearshore sites and the two offshore [fish enhancement] sites. In light of GA DNR-CRD and the City of Tybee Island's concerns about the quality of the sediments, the Corps revised the dredged sediment placement plan and now intends to deposit all sediments from the entrance channel in either the Ocean Dredged Material Disposal Site or approved upland confined sediment placement sites. Consequently, proposed dredged sediment placement areas: Site MLW 200, Site MLW 500, ERDC Nearshore, Site 2 Mound, Site 2 Extension, and Sites 3, 4, 5, 6, 11, and 12, were deleted from the proposed action, and the Corps would not deposit new work dredged sediments in those locations as part of the Savannah Harbor Expansion Project.

The City of Savannah submitted comments concerning the potential impacts of increased chlorides to their water supply intake on Abercorn Creek. As a result of their comments, the Corps, Georgia Ports Authority, and the City of Savannah closely coordinated to perform additional impact analyses. The results of those analyses are summarized in Section 5.02 of the Final EIS. The analyses indicated that during drought conditions and high tide, the increased chloride concentrations would cause an increase in lead corrosion and disinfection byproducts, both of which are regulated by the EPA, at the City's municipal and industrial plant. Based on the outcome of the updated studies, the Corps has added a raw water storage impoundment to mitigate for these expected impacts.

A number of comments were also submitted concerning the engineering and design of the channel, in particular the entrance channel and channel extension. Respondents were concerned that the channel design presented in the Draft documents was not adequate to allow safe transit of the larger ships expected to call after the harbor is deepened. The preliminary channel design was developed using the US Army Corps of Engineers' design standards and procedures outlined in EM-1110-2-1613, Hydraulic Design of Deep Draft Navigation Projects. In accordance with ER-1110-2-1403, final channel dimensions and navigation requirements were developed using the Corps' state-of-the-art Ship Simulator, with input from the Savannah Harbor Pilots Association (SHPA). The use of ship simulators to establish final design parameters for deep-draft navigation channels is the standard practice worldwide and ensures that channels are safe and economical and result in minimal environmental impact and long term maintenance requirements. The use of ship simulators also provides the harbor pilots that work in the channel on a daily basis the opportunity to provide input into the design and ensure the navigability and safety of the channel. The ship simulation study verified that the entrance channel could be deepened and widened at one bend to maintain two-way traffic capability for the design vessel. In the inner harbor, two-way traffic could be maintained for the design vessel and a Panamax vessel with inclusion of two bend wideners. Two meeting areas in the inner harbor would allow for meeting of two design vessels.

Currently the Savannah Harbor Pilots safely bring in vessels with a minimum of 4-foot underkeel clearance. The Corps expects this practice to continue with the deepened channel.

The vertical motion study, which included the channel extension out to a maximum of Station - 98+600B, showed that the pilots can safely navigate the design vessel through the deepened entrance channel at a ship speed of 14 knots or less. Documentation for both the ship simulation and vertical motion studies can be found in Engineering Appendix Supplemental Materials.

With respect to economics, most respondents commented or asked questions about how deepening the harbor is economically justified if the expected growth in cargo volume remains the same in the without- and with-project conditions. As discussed in Section 5 of the GRR, under both the without- and with-project conditions, the District expects the Garden City Terminal to reach its build-out capacity near 2030 when the total number of TEUs processed reaches 6.5 million. is the Corps anticipates that without deepening, more vessels would be required to transport a given volume of cargo, when compared to the with-project condition in which the vessels could load more completely (thereby requiring fewer vessels).

No increase in cargo is expected to occur as a result of the proposed harbor deepening. As a result, the number of containers that transit the areas that surround the port would not change as a result of a deeper harbor. The project's economic benefits accrue from the use of larger, more cost-effective container ships, not an increase in the number of containers moving through the port. These transportation cost savings are predicted to result in an average net benefit of over \$170 million annually to the Nation.

#### **Organization and Approach to Response to Comments**

Documentation of the Corps' responses to all comment letters, e-mails, and dictated comments is included on the following pages. Comments have been addressed in the order shown in the Table of Contents. Typically, comments were scanned, which may have resulted in some typographical errors but those should not detract from the substance of the comment.

The responses are intended to assist the public and decision makers in understanding how the Corps has addressed the issues raised in the comments. However, the General Re-Evaluation Report and the Final Environmental Impact Statement (FEIS or EIS) are the official documents that present the information and analysis for the SHEP. In the event any particular response to a comment is inconsistent with the GRR and/or EIS, or is inconsistent with any other responses to comments, the information and analysis in the GRR and/or EIS controls. In addition, while it usually should be clear from the substance of each response whether the Corps disagrees with a particular comment, in no case may the lack of any express statement of disagreement be taken to mean or imply that the Corps agrees with the comment.