
ENVIRONMENTAL IMPACT STATEMENT

APPENDIX S: Essential Fish Habitat Evaluation

SAVANNAH HARBOR EXPANSION PROJECT
Chatham County, Georgia and Jasper County, South Carolina

January 2012

ADDENDUM 2

Responses to NMFS Draft Essential Fish
Habitat Conservation Recommendations



**US Army Corps
of Engineers**
*Savannah District
South Atlantic Division*

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**Response to National Marine Fisheries Service
Essential Fish Habitat
Draft
Conservation Recommendations**

Listed below are the NMFS' Essential Fish Habitat (EFH) conservation recommendations and the Corps' responses. As described in this document, the Corps intends to implement the EFH recommendations as part of SHEP, with the exception of Recommendation #3. The Corps does not believe implementation of Recommendation #3 is necessary to project purposes and will continue to coordinate with the participating Federal resource agencies as outlined in the FEIS and its appendices.

1. Complete surveys for hard-bottom habitat within the proposed Ocean Bar Channel extension, including a 1,000-foot buffer from each channel edge.

RESPONSE: Concur. The Corps will soon award a contract to perform this survey. We will coordinate the results with NMFS.

2. This Recommendation includes several actions related to the Monitoring and Adaptive Management Plan: (A) Develop ecological performance criteria for each component of the Monitoring and Adaptive Management Plan. (B) The performance criteria shall specify ranges of values believed to be acceptable. (C) Make publicly available the GIS data and other data to gauge effects of the project.

RESPONSE:

(A) Develop ecological performance criteria for each component of the Monitoring and Adaptive Management Plan. The Corps believes that ecological performance criteria are not appropriate for each component of the Monitoring and Adaptive Management Plan. Many components of the project monitoring will be based on examination of physical changes in the estuary – particularly salinity and dissolved oxygen levels. Other components will include biological factors, such as monitoring the distribution of Shortnose sturgeon in the estuary. The Corps has revised the Monitoring and Adaptive Management Plan to incorporate many of NOAA's performance criteria suggestions.

(B) The performance criteria shall specify ranges of values believed to be acceptable. The FEIS states that adaptive management may be needed if an observed result shows a variation from the predicted level that is larger than the variability/accuracy of the model. The Corps has revised the Monitoring and Adaptive Management Plan to incorporate NOAA's suggestion about identifying a range of typical values at the continuous monitoring locations.

(C) Make publicly available the GIS data and other data to gauge effects of the project. Concur. The EIS states that the Corps would release the monitoring reports to the public. The Corps also intends to post water quality data on-line so they would be available to the public in near real-time.

3. Establish an expert team to independently oversee the Monitoring and Adaptive Management Plan. The team shall include representatives from academia as well as the federal and state resource agencies.

RESPONSE: The Corps does not concur with this measure. The Corps has a non-delegable responsibility to comply with all applicable laws, regulation, and policies and to ensure the proper expenditure of appropriated funds. The Corps will consult with the natural resource agencies to obtain their views. The Adaptive Management Plan in the EIS describes how the Corps would coordinate with the public and other agencies, and how the decisions would be made.

4. The Monitoring and Adaptive Management Plan shall include a real-time component that examines the concentration of D.O. The locations of real-time monitoring shall be developed in consultation with NMFS.

RESPONSE: The Monitoring and Adaptive Management Plan includes the proposed locations of the monitoring stations, as well as a description of the Corps' intent to post the water quality data real-time.

5. The Monitoring and Adaptive Management Plan shall include monitoring of crabs and shrimp.

RESPONSE: Concur. The Corps would assess the distribution of crabs and shrimp in the estuary as part of its monitoring of fish distribution. The investigators who conduct the fish sampling in the drop-net sampling of tidal rivers will also document the occurrence and distribution of crabs and shrimp

6. Dredging shall not occur when the concentration of D.O. is below 3.0 mg/liter.

RESPONSE: The Corps would install and operate oxygen injection systems to mitigate for expected impacts to dissolved oxygen caused by deepening project.

Once the systems are operational, the Corps would perform a Transfer Efficiency Study to identify how effective the systems are in delivering oxygen to the estuarine waters. The project would also perform extensive monitoring to ensure the oxygen distributes throughout the estuary as intended. If the oxygen injection systems do not perform as designed, the Corps would modify the systems as part of Adaptive Management.

The Monitoring and Adaptive Management Plan also includes periodic assessments of the project impacts to ensure the impacts to DO levels are not greater than what is estimated by the agency-approved models. If impacts are greater than predicted, Adaptive Management funds would be used to modify the DO systems to ensure that impacts are no worse than the predictions for those field conditions.

Should the Corps need to dredge when D.O. levels are below 3 mg/L, it is required to seek concurrence from GA DNR-EPD. It would also coordinate any such request with NOAA Fisheries.