

MEMORANDUM FOR RECORD

SUBJECT: Savannah Harbor Expansion Project;
Summary of 1 June Meeting of Fisheries Interagency Coordination Team

1. Attendees:

USFWS: Ed Eudaly
John Robinette
Jane Griess
NMFS: Prescott Brownell
SC DNR: Priscilla Wendt – by phone
GA DNR-EPD: Keith Parsons
GA DNR-WRD: Matt Thomas
EPA: Gerald Miller
Ntale Kajumba
COE: William Bailey
Hugh Heine
Joe Hoke
Gary Mauldin
Observers:
GPA: Hope Moorner
Larry Keegan (CH2MHill)

2. The meeting was held at the USFWS Refuge Office near Savannah from roughly 0900 to 1200. The meeting was an information meeting only, not a decision meeting. The Corps was not requesting concurrence from the agencies on the level of impacts predicted for the project alternatives.

3. The following is a summary of the discussion and does not include all the information that was presented or all comments made during the discussion.

4. The Corps started by reviewing the process the Team had followed to arrive at this point:

- The Interagency Team had reviewed the fisheries found in the estuary and agreed that impacts should be identified for Striped bass, Southern flounder, American shad, and Shortnose sturgeon.
- The Team had developed measures to define acceptable habitat for those species.
- The intent is to use the hydraulic and water quality models to identify the amount and location of suitable and unsuitable habitat so that potential impacts of the harbor expansion project could be identified and evaluated.
- The Corps combined the habitat requirements and provided them to the hydraulic modelers for running the hydraulic and water quality models.

- The agencies recently approved use of the hydraulic and water quality models for impact evaluation purposes on the Savannah Harbor Expansion Project.
- The modelers had completed their impact runs and prepared a report documenting their findings. The report had been sent to the Interagency Team for review. Errors in the report had been identified and revisions are needed.

5. The Corps distributed a summary it had prepared of the predicted changes in suitable fishery habitats. The summary was based on information in the report that had been updated to reflect recent corrections. The summary was not complete, as the modelers are still in the process of re-doing some runs to correct errors that had been identified since the report was distributed. The group reviewed the summary in a general way and identified the following range potential changes to habitat depending on channel depth:

Striped bass spawning	7 to 19 percent – also depending on river flow condition (high, average or drought)
Striped bass eggs	8 to 25 percent – average flow only
Striped bass larvae	13 to 21 percent – average flow only
Striped bass spawning	8 to 25 percent – average flow only
American shad (Jan)	0 percent – average flow only
American shad (May)	0 percent – average flow only
American shad (Aug)	0.4 to 2 percent – average flow only
Sturgeon adults (Jan)	4 to 7 percent – average flow only
Sturgeon adults (Aug)	6 to 10 percent – average flow only
Sturgeon juveniles	4 to 9 percent – average flow only
Southern flounder	18 to 28 percent – average flow only

6. The group then discussed the summary and impact report. A question arose on how the model was calculating habitat for Striped bass. The grid is one cell wide in the Middle River and upper Back River areas, so lateral averaging is not necessary. Except for one station, those areas are well mixed, as recently confirmed by Paul Conrads (USGS) after reviewing the field data and EFDC model results. Since rivers in the area are well mixed, the group believes that vertical averages of salinity and dissolved oxygen is acceptable for use in predicting Striped bass habitats.

There was surprise expressed that the analysis identified that areas were unsuitable as Shortnose sturgeon habitat only because of failures to meet the salinity criteria. The group had expected some areas to be unsuitable because of low dissolved oxygen conditions. The Corps said it would recheck how the model determined a cell was unsuitable for sturgeon.

A member of the Team requested that information be provided for all habitat analyses – similar to what had been done for Shortnose sturgeon – to show why cells were identified as unacceptable habitat (which criteria they failed to meet).

A member of the Team requested that an additional plot be provided for all habitat analyses to show the location of the areas predicted to be impacted by the alternative (delta plot).

A question arose on what flows were used for the analysis for Figure B.3.2. Were they August 1999 (varied flows) or Historical average flows (constant flow)? The Corps will review and confirm that constant flows were used, matching the other fishery impact runs.

A question arose on the report's prediction of identical impacts for some species in both high and low flow conditions (20 and 80 percentile flows). The Corps reiterated that those results were caused by errors in file management while the models were being run and stated that it was re-running those runs and would send the group the updated information when it becomes available.

A member of the Team requested that the information reported by the Corps contain a clearer description of the percent and percentile used in that particular analysis. The Corps acknowledged the difficulty in keeping this information straight and understandable for those who need to use the information being produced. We will attempt to clarify and better distinguish between the percentile for a parameter (such as percentile river flow from a historical cumulative frequency distribution), and percent exceedence (amount that level is exceeded at a specific location).

A member of the Team requested that information be provided on the cumulative effects of historical changes in the estuary on the habitat volumes of the four selected species. The Corps explained the cumulative impact analysis that it was conducting – using the model to differences in salinity and dissolved oxygen levels between present bathymetry and that recorded in the 1850's. The Corps said it would investigate running those results through the post-processor to determine the locations and volumes of acceptable fish habitats.

7. A member of the Team requested that the Corps develop an index of fishery information (reports, MFRs, etc.) that is important to the analyses being conducted in the SH Expansion Project. With such a list, each agency reviewer could ensure that they have a complete record of the critical documents and that they have the latest version of those documents. The Corps agreed to develop and provide such an index.

8. Except for one individual, most of the members of the team had been present the day before when the Corps presented the preliminary results of the mitigation modeling. Since most of the group had heard that information, the Corps presented the results to that individual after the main meeting was over.

9. The Corps agreed to provide revised Impact Reports to the agencies when those revisions and corrections are complete. The updated report will be provided on CD only. Agency Team members are free to send the Corps any comments they may have after further review of the present Impact Report or review of the revised report.

10. The Corps will continue its work on evaluating potential mitigation measures. When it has developed combinations of mitigation measures that it believes would be effective, the Corps will hold another meeting of the Interagency Coordination Team to share those results. That meeting would be prior to the Corps' completion of a Draft EIS or a request for agency concurrence on the acceptability of the mitigation plans or the project alternatives.

11. After the meeting Ed EuDaly (USFWS) provided an email containing the following points that he wanted to reiterate and clarify:

- I strongly suspect that the wrong salinity criteria was used for the adult sturgeon winter habitat (unless the bottom salinity impact is much higher than anticipated).
- I also suspect that the D.O. criteria used for the sturgeon may have been incorrect. This suspicion is due to the D.O. figures provided that show higher than expected minimum D.O. levels. However, it could be that inapplicable DO information was displayed and the correct information was used in the model run.
- For the baseline and mitigation runs, all maps need to use a uniform salinity scale legend. With the current maps and a sliding scale, interpretation is difficult.
- After further consideration, I believe that all baseline and mitigation runs must display surface, middle and bottom salinity. This display is necessary for a complete understanding of each modification. A great deal of effort has gone into completing the model and it should be fully utilized for decision making. Output can be provided in electronic format to reduce color reproduction cost.

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William Bailey
Environment and Resources Branch