

MEMORANDUM FOR RECORD

SUBJECT: Savannah Harbor Expansion Project;
Summary of 10 September Interagency Meeting on Evaluation of Fisheries

- 1. Attendees:
 - USFWS: Ed Eudaly
 - NMFS: Prescott Brownell
 - SCDNR: Priscilla Wendt and Mark Collins
 - GADNR-WRD: Matt Thomas and Ted Will
 - GADNR-CRD: Pat Geer
 - COE: Bill Bailey
 - ATM/GPA: Bo Ellis and Bridget Callahan
 - GA Coop: Cecil Jennings and Tom Reinert

2. The Agenda is attached.

3. After introductions I explained the purpose of the interagency meeting.

4. I then reviewed the **Completed and Ongoing Fisheries Studies**. A list is included in the agenda.

5. We then discussed the **Potential Need for Additional Fishery Field Studies**. I explained one flow rerouting that had been proposed and that the project would be evaluating – closing Houston Cut and rerouting flow through Steamboat Bend; accompanied by closing Middle River and rerouting the downstream exit to Back River near New Cut. Members of the group were concerned about possible reductions in fish passage between Front River and Middle River. The group also identified the lower end of Middle River as the location for juvenile shortnose sturgeon during the winter in the study conducted as part of this project. We agreed that this proposal would be a major modification to the estuary and would need to be examined thoroughly.

The group mentioned that the completed and ongoing studies will all have been conducted during a drought. The distribution of fish would differ somewhat during normal flow conditions. Members of the group expressed a desire for the following studies to be conducted under normal flow conditions:

- Striped bass egg and larval study
 - Where is spawning occurring under normal flows?
 - How much spawning occurs in the estuary under normal flows?

- Shortnose Sturgeon
 - Where do the juveniles stay during normal flows?
 - Is the lower end of Middle River critical to this population?
- Striped bass spawning/flow conditions
 - Velocity measurements at spawning locations and egg development areas under normal flows. Are the average velocities sufficient to meet the habitat requirement (velocity) to keep the eggs suspended?

6. We then discussed **Impact Evaluation Techniques**.

I explained the procedure I hoped to follow – combine a Habitat Suitability Index Model with the Hydrodynamic Model to identify and quantify locations of suitable habitat. Ed Eudaly and Ted Will had worked on this approach through the SEG Striped Bass Committee as a way to identify acceptable habitat and project impacts to Striped Bass. Cecil mentioned that Tom Reinert was developing a Decision Support Model for Striped Bass. It will include probabilities of impact and should be available next year. No one identified an alternate impact evaluation approach for this project. I stated that should someone come across an alternate approach in the future that they think may work better, they should let the group and the Corps know.

7. We then discussed what species should be evaluated in the EIS. The agenda includes a list that Pres Brownell had suggested may be appropriate for inclusion in the EFH Evaluation. Pres suggested that if the right species could be identified, it may be sufficient to fully evaluate 1 or 2 species plus an anadromous or diadromous species. The group concluded that there was insufficient information on Atlantic sturgeon to define acceptable criteria in the estuary. Since an HSI model is not available, the group decided to drop Atlantic silversides from the list. The group agreed that Shortnose sturgeon should be one of the species evaluated in detail; Striped bass would be another. The group thought that Blue Crabs should be considered because of their commercial importance. Although shrimp may not be particularly sensitive to salinity changes, it may be beneficial to evaluate them because of their commercial importance. Red drum should be evaluated because of their recreational importance. Southern flounder and Spotted seatrout should also be considered because of their recreational importance.

We briefly mentioned water quality factors that would be important to specific species:

- Shad: D.O. and temperature for the young; mean river discharge
- Shrimp: Temperature and salinity; D.O. not an effect

8. The next step is examination of the HSI Models to identify whether they could be used to obtain water quality parameters that could define acceptable habitat. The group agreed to divide the review of the HSI models as follows:

- Striped Bass USFWS (Ed Eudaly)
- Shortnose sturgeon SCDNR (Mark Collins) and NMFS (Pres Brownell)
- American shad NMFS (Pres Brownell)
- Red Drum SCDNR (Priscilla Wendt – coordinator)
- Spotted Seatrout SCDNR(Priscilla Wendt – coordinator)
- Shrimp GADNR (Pat Geer)
- Blue Crab GADNR (Pat Geer)
- Southern Flounder ATM (Bridget Callahan)

For their specific species, the individuals would do the following:

- Review the HSI Model and available information
- Recommend whether it is doable to identify criteria of acceptable habitat for which the Hydrodynamic Model could be used to identify locations and quantity of areas meeting the criteria
- Identify which characteristics would define acceptable habitat
- Recommend specific parameters (if possible) that would define acceptable habitat

Each reviewer would present their findings to the group for their consideration. If additional reports needed to be obtained, ATM would most likely be identified as organization to obtain them.

I distributed the Striped Bass Application developed by Ed and Ted as an example for the reviewers and stated that a goal would be to develop a similar document for each species.

9. We agreed that it would take at least a month to review these HSI Models. I will schedule another interagency meeting in 1-2 months.

William Bailey
Environmental Resources Branch

SAVANNAH HARBOR EXPANSION PROJECT

FISHERIES WORKGROUP

SEPTEMBER 10, 2002

AGENDA

INTRODUCTIONS

PURPOSE OF THE WORKGROUP

ONGOING / COMPLETED FIELD INVESTIGATIONS

- Striped Bass Egg & Larval Distribution
- Literature Review: Migration of Shad and Blueback Herring in Savannah Harbor
- Contacts with Regional Experts on Fish Migration
- Distribution of Shortnose Sturgeon
- Spawning Aggregations of Sciaenid Species
- Temporal & Spatial Distribution of Estuarine Dependent Species

NEED FOR ADDITIONAL FIELD STUDIES

- Proposal to close Houston Cut
- Others ??

SPECIES TO CONCENTRATE ON FOR IMPACT ASSESSMENT

- Species identified by NMFS under EFH
 - Atlantic and shortnose sturgeon
 - Striped bass
 - White and brown shrimp
 - American shad
 - Juvenile spot
 - Red drum
 - Atlantic silversides
- Others ??

IMPACT EVALUATION TECHNIQUES

- Combine HSI models with Hydrodynamic Model to identify areas of acceptable habitat
- Others ??

AGENDA

EVALUATION OF IMPACTS TO FISHERIES

TECHNIQUE: Combine HSI models with Hydrodynamic Model to identify areas of acceptable habitat

STRIPED BASS

Plan developed through the SEG Striped Bass Committee (Ed Eudaly)

- Spawning
- Egg Development
- Larval Development

STURGEON

Review of HSI by SCDNR (Mark Collins)

SHRIMP

Review of water quality requirements by GADNR-CRD (Patrick Geer)
Review of HSI

JUVENILE SPOT

Review of HSI by GADNR-CRD (Patrick Geer)

RED DRUM

Review of HSI by SCDNR

AMERICAN SHAD

Review of HSI by GADNR-CRD (Patrick Geer)

ATLANTIC SILVERSIDES

No HSI model on website