

MEMORANDUM FOR RECORD

SUBJECT: Summary of 6 June SMART meeting; SH Expansion Project

1. Attendees:

EPA: Jim Greenfield

USGS: Paul Conrads

COE: Bill Bailey

GPA: Larry Keegan; Bo Ellis; Danny Mendelsohn; Eduardo Yasuda

2. We started by reviewing the position of EPA on the model. Jim stated that the model was sufficiently calibrated to proceed to D.O. modeling. He also stated that EPA would defer to the USFWS on utility of the model (salinity and water levels) to address impacts to the marshes.

3. We discussed **Convergence Testing**.

I stated that CEWES was satisfied with the information ASA/ATM had provided.

Paul stated that USGS needed the following additional information: results of convergence both longitudinal and width testing for Water Levels, Currents, and Salinity on grids for the Front River and Back River. An idealized grid would be acceptable. He went on to state that the downstream flow rate used in previous convergence tests appeared low (1/2 the normal flow at Augusta). He stated that the new testing needed to either be performed with 2 flow rates or a variation in flows that include normal downstream flows. ASA did not need to run 2 flow rates on the grid for Back River.

I commented that the previous convergence testing results appear to indicate that model results stabilize after a certain modeling duration. The group agreed that to increase confidence in the model results, application runs of the Hydro & Salinity Model would use a 25-day ramp-up period before output data is recorded. ASA/ATM could accomplish this by adding a synthetic set of data at the beginning to allow the model to stabilize prior to recording outputs.

4. We discussed **Water Surface Elevations**.

EPA and the USGS agreed that ASA/ATM needed to provide additional information to describe how remaining errors in the model results will be accounted for (process or methodology) as they are used in follow-on modeling and/or during application runs. Paul stated he would check with USFWS to ensure this position was acceptable to them.

I stated that it was likely that the Corps would not state that the model is acceptable for assessment of wetland impacts until we saw the results of the accounting for the remaining errors and the extent of the correction.

5. We discussed the USFWS concerns about the accuracy of both salinity and water surface elevations.

Paul stated that he thought that the USFWS just wanted to make sure that any improvements made in the Hydro Model's ability to predict water surface elevations would not be made at the expense of accuracy on salinity predictions. ATM will provide additional information regarding the effect that any process used to account for remaining errors in water surface elevations is likely to have on salinity predictions.

6. We discussed **Current Predictions**.

Danny stated that GPA 14 was a station where the currents were altered by the orientation of the structure and adjacent structures. Therefore, the data on currents obtained from that station is not reliable and was not used.

ATM agreed to provide statistics and graphs on currents for both the 1997 and 1999 data collection periods. This would include model to data comparisons.

Paul will check with Ed Eudaly to ensure that additional data is all he needs, or if the USFWS is particularly concerned with the model's present level of accuracy.

The Expectations Document included goals of +/- 25% for currents. Danny stated he believes the model results are within that range.

7. We discussed **Volume Flux**.

No time series plots are available. ATM will provide new information in the new package on this issue. This data will include model to data comparisons and plots of the data. ASA believes the new information demonstrates that the model's performance has improved on this issue.

8. Agreements.

A) ATM will provide a revised acceptance package that acknowledges additional processing is needed to provide usable input for evaluation of wetland impacts. It will include all revisions, updates, errata sheets and new information provided since the original April 2, 2002 document.

B) ATM will work to develop post processing techniques for water level output from the Hydrodynamic and Salinity Model.

C) USGS and the USFWS will arrange a meeting to discuss water level accuracy requirements and possible ways to reach them. Expected attendees will be Danny Mendelsohn, Paul Conrads, Bo Ellis, John Bossart, Wiley Kitchens, Ed Eudaly and Bill Bailey.

William Bailey
Environmental Resources Branch