

MEMORANDUM FOR RECORD

SUBJECT: Multi-Agency Meeting, Savannah River Hydrodynamic Model, Savannah Harbor Expansion (SHE) Project, Georgia and South Carolina

1. At the request of the EPA, a multi-agency meeting of the Federal Agencies associated with the SHE project was held on Tuesday, 22 May 2000 at the Offices of the U.S. Fish & Wildlife Service to discuss concerns that have surfaced in regard to the subject model. In attendance were the following:

Douglas H. Plachy	U.S. Army Corps of Engineers (CESAS-PM-CN)
William G. Bailey	U.S. Army Corps of Engineers (CESAS-PD-E)
Susan E. Durden	U.S. Army Corps of Engineers (CESAS-PD-PF)
Ed EuDaly	U.S. Fish & Wildlife Service
Wiley Kitchens	University of Florida (U.S. Fish & Wildlife Service)
Paul Conrads	U.S. Geological Survey
Jim Greenfield	U.S. Environmental Protection Agency

[It should be noted that the attendees typically referred to "GPA" during the meeting in lieu of specific firms when referencing discussions with one of GPA's contractors since it is GPA that is funding and controlling the various contractors and since it is GPA that is ultimately accountable for the contractor's actions.]

2. It was understood that the initial goal of the subject model was to provide a method for predicting numerical values for physical parameters that may change as a result of alterations to the Savannah River. However, there is now great concern regarding the technical adequacy of the model and whether it will have the ability to accurately predict changes in the ecosystem, i.e., water levels, dissolved oxygen (DO), salinity, etc. Several examples were given such as:

a. The water levels have been off (and still are) by as much as 1 meter. It was stated that the tolerance should be no greater than +/- 3 inches. This is in light of the fact that changes of water level of only 1/2 inch can cause major impacts to the species of vegetation growing in the marsh.

b. The model does fine at and/or near the boundary condition, but gets worse the farther you go upriver away from the boundary. A potential problem may be that the model is build upon an estuary model rather than a riverine model.

c. A sensitivity analysis has not been done. This is a key aspect to model development.

CESAS-PM-CN

SUBJECT: Multi-Agency Meeting, Savannah River Hydrodynamic Model, Savannah Harbor Expansion Project (SHE), Georgia and South Carolina

d. The convergence test specifically requested by the Corps has not been done to validate the grid resolution. It was noted that ATM had in the past discussed reducing the grid resolution without knowing the convergence.

e. The model has been inconsistent, i.e., sometimes it under predicts and sometimes it over predicts. Therefore, as it currently exists, it is unreliable as a tool to assess impacts of “what if” conditions.

f. To be an adequate tool for assessing impacts, the peaks and ravines are just as important as the mean. Currently, the model has only marginally met the mean and has substantially missed the peaks and ravines. Are the problems due to limitations of the model itself (i.e., WQMAP), application of the model set up and calibration, or skill of the modelers?

3. There was extensive discussion in regard to GPA’s unwillingness to provide the Federal Agencies direct access to the model. Although there had been a meeting in Atlanta prior to the last MTRG meeting to discuss the access issue, it is clear that the parties left that meeting with different understandings of the decisions and commitments made. The agencies need access to the model ASAP in order to assess & determine what may be causing the model not to perform as expected. The undersigned relayed the conversations he had with GPA shortly after the last MTRG meeting wherein it was stated by ATM that the model would be provided to EPA, etc., post calibration, i.e., not anytime soon. GPA’s understanding is that EPA wants access to the model for DO and TMDL work unrelated to the SHE project. It was not understood that it was not possible for the agencies to accept the model (as it currently exists).

4. It was clear from the discussions that the Federal Agencies are not attempting to impede the development of the model, but wish to help to ensure that the model is as accurate and complete as possible. It was understood that without a good model, it would be very hard to grasp the potential impacts of any changes to the navigation channel. In this regard there was frustration on the part of the Federal Agencies over the following issues:

a. Requests for the 1999 data set, i.e., the electronic version of the processed data have gone unanswered. It was noted at the meeting by the undersigned that GPA might not have been aware that the agencies have requested the data set.

b. ATM has been selective in regard to what they choose to show the Federal Agencies at the MTRG meetings.

CESAS-PM-CN

SUBJECT: Multi-Agency Meeting, Savannah River Hydrodynamic Model, Savannah Harbor Expansion Project (SHE), Georgia and South Carolina

c. Dialogue and Feedback to the MTRG has changed (in a negative way) since the departure of the original ATM modelers.

d. There is the perception of “obstructionist behavior” on the part of GPA’s contractors.

5. Several courses of action were discussed ranging from starting all over with the development of a new model to completely giving up on attempting to model the Savannah River. However, it was eventually decided that the Federal Agencies would put together some very precise and explicit criteria a.k.a. goalposts, which clearly defines what specifically the model must provide in order to be used to assess potential impacts. (It was noted that this information should have been provided/requested very early on in the development process.) This set of requirements would be staffed by the Federal Agencies and then provided to the MTRG for discussion at the next scheduled meeting.

6. In addition to the above, it was also agreed that the Federal Agencies would renew their requests to obtain from GPA:

a. An electronic data set of the processed 1999 data collection. Since State funds were used to obtain this data set, it is felt that there should not be a problem with it being placed in the public domain.

b. Direct access to the model in order to attempt to determine why the model has not performed as expected. This will be necessary before any of the agencies would consider signing off on the calibration. It was stated by the undersigned at the meeting that GPA requested in April that ATM determine how to go about providing direct access of the model to the Federal Agencies.

7. The information stated above is that of the undersigned’s comprehension, and may not be the consensus of all of the Federal Agencies.

/dHPlachy/ 26 May 01

DOUGLAS H. PLACHY
Senior Project Manager
Navigation & Coastal Projects Team
Civil Works Branch, PPMD