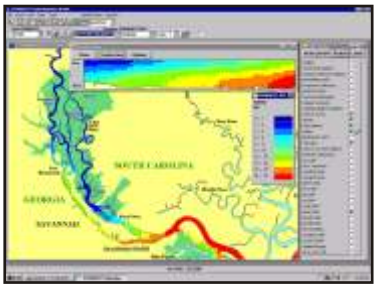
Savannah Harbor Expansion Project
Georgia Ports Authority

Services Rendered

- Three-Dimensional Hydrodynamic and Water Quality Modeling
- Tidal Marsh Studies
- Wave and Coastal Processes Modeling
- Sediment Transport Modeling
- Dredge Material Assessment and Management
- Biological Assessments and Study Management
- Cultural Resource Surveys



Project Summary

ATM is providing modeling and consulting expertise to Georgia Ports Authority (GPA) for the Savannah Harbor Expansion Project (SHEP). The proposed expansion project includes deepening of the Federal Navigation Project, 19.5 miles inland-river, and as many as 18 miles of the bar channel.

A three-dimensional hydrodynamic and water quality model presently is being developed to support decision making in the Tier II Environmental Impact Statement (EIS) process. ATM performed an extensive data collection effort on the Lower Savannah River Estuary during the summer of 1999 to support the calibration of the three-dimensional computer model. The number of monitoring stations, locations of the continuous monitoring stations, and the amount of simultaneous water chemistry samples make the Summer 1999 Lower Savannah River Data Collection Effort one on the most extensive data sets ever collected. Monitoring plans, QAQC of the data, and model calibration are all coordinated with federal, state and local regulating agencies to address all concerns raised in the Tier I EIS.

ATM is performing *tidal marsh studies* to evaluate potential impacts of salinity intrusion (resulting from channel deepening) as predicted by the three-dimensional computer model. Salinity intrusion is a concern because of the Savannah Wildlife Refuge located upriver of the Federal Navigation Project, as well as the presence of tidal freshwater marshes.

ATM also is performing *wave and coastal processes modeling* to evaluate the potential shoreline changes resulting from deepening the bar channel. Coupling of the three-dimensional river hydrodynamic and the coastal processes models will enable agencies to better evaluate potential impacts of the harbor expansion project.