

## **DREDGED MATERIAL MANAGEMENT ANALYSIS**

**Purpose:** The dredged material management study will determine the effect of the proposed channel deepening on dredged material management practices. The scope of the study will cover both the entrance channel and the Savannah River channel.

There is an existing Dredged Material Management Plan in place for current Operations and Management practices for the Savannah Harbor Navigation Channel. The purpose of this report will be (1) to evaluate disposal site capacity needs for construction of the channel deepening, and (2) to determine the effect of the channel deepening on established O&M practices and plans. This involves study of dredging needs in the inner harbor. This study will also examine in-water placement to determine optimal placement of new work sediments based on best use of the sediments, acceptable duration of construction, lowest cost, and minimizing adverse environmental effects.

### **Disposal Area Capacity Evaluation**

Previous work done during Tier 1 analysis will be examined. Capacity of disposal areas will be updated from Tier 1 analysis taking additional dike raisings and material placed from dredging records into account. Volume displaced by material will be determined by material type by reach. Additional new work sediment storage capacity required will be determined by volume of sediments to be excavated by the deepening project. Additional O&M sediment storage capacity requirements will be determined by the sedimentation analysis that shows changes in long term sedimentation amounts and patterns. After capacity needs are finalized, additional dike height and volume of material required will be determined. A cost to raise dikes will be determined based on past dike raisings.

### **Re-evaluate Disposal Plans**

The existing dike construction schedule will be reviewed. A DMMP write up for the report will be prepared. An addendum will be prepared to the existing DMMP showing a revised 20-year dike raising schedule after a deepening project is implemented.

### **Dredged Material Usage Evaluation**

Reports and supporting ERDC work will be reviewed

### **Dredged Quantity Calculation**

Quantity calculations per depth will be determined. The sediment quality will be examined. Volumes of sediment will then be delineated by sediment type and location.

### **Design In-water Placement**

In this phase a construction scheme will be devised and a selection matrix created to determine optimal placement location.

### **Characterize In-water Placement Environmental Effects**

This phase will identify environmental restrictions on placement of material and potential placement locations

**Finalize Placement Plans**

Results from this study will be used in the development of the Dredged Material Management Plan.

**Prepare report**

Prepare an appendix that documents the dredged material management study.