

## PAS SCOPE OF WORK

### PHASE 1 - STATE OF NC DREDGED MATERIAL MANAGEMENT PLAN

#### PROJECT SCOPE:

The State of North Carolina and the U.S. Army Corps of Engineers (USACE) are partnering, under Section 22 – Planning Assistance to States (PAS), to conduct analysis of dredge material placement sites in support of an overall statewide coastal dredged material management plan (DMMP). North Carolina contains over 1,500 miles of federal navigation channels, the majority of which are categorized as shallow draft navigation projects. One primary federal navigation project in the State is the Atlantic Intracoastal Waterway (AIWW), which extends for over 300 miles from the Virginia state line to the South Carolina state line. It's a critical component of North Carolina's navigation activities, since it transects 13 coastal counties and serves to support commercial navigation for interstate commerce, offers vessels safe harbor from inclement weather, and serves to provide recreational access to numerous coastal inlets. Appropriate placement of dredged material is an important component in support of the maintenance and operation of the AIWW and other shallow draft channels. In response to the rapid development of the coastal corridor through which numerous navigation channels pass, the State of North Carolina would like to perform an assessment of all existing upland dredged material placement sites adjacent to federal navigation channels and other non-federal waterways and marinas in order to ensure the long term ability for maintaining these waterways for future commercial and recreational activities. The evaluation of coastal dredged material placement facilities will identify current conditions, capacities, and placement needs of each site. This information will be essential for the State to determine future dredge material capacity needs, as well as to determine what new placement sites must be developed or acquired.

Although a full state-wide DMMP would include the evaluation of federal and non-federal dredged material placement facilities (DMPFs), this PAS study will only assess the non-federal components of the DMMP. The study will focus on approximately 30 to 60 DMPFs either owned, operated, or managed by the State, local municipalities, private marinas, conservation groups and other non-Federal stakeholders. Development of this abbreviated DMMP will consist of the following three primary tasks:

- (1) Developing a GIS database to house information on all DMPF sites, and mapping non-federal DMPFs.
- (2) Populating the database to include current facility conditions and capacities related to the non-federal DMPFs.
- (3) Assessing current DMPF needs and frequency of DMPF needs of non-federal users.

The geospatial database will serve as a central clearinghouse for all upland dredged material placement sites located within the 20 coastal counties of North Carolina (Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrell, and Washington Counties). Upon its completion, the database information will be accessible by the general public via a webpage that will be hosted and managed by the State. A more detailed description of the project tasks is outlined as follows:

### **Task 1: Development of a GIS database and mapping of non-federal DMPFs.**

The geospatial database will include mapping features depicting all Federal, State, and local placement facilities, although for federally managed DMPFs, only readily available data will be input into the database. Under this PAS, all State and local placement facilities will be identified through the use of aerial or satellite imagery interpretation and mapped using GIS. At a minimum, the DMPF geospatial database will attempt to include the following attributes about each placement site:

- Site manager and contact number
- Placement site name
- Adjacent waterbody name
- Placement facility type (upland, control of effluent, etc.)
- County name
- Coordinate location
- Acreage (total and working)
- Average dike height and base width
- Design and available capacity
- Number of weirs
- Last used (date)
- Previous users of the site
- Beneficial placement options (i.e. intertidal habitat placement, living shorelines, bird islands, research areas, etc.)
- Previous beneficial use
- Status (Constructed or Unconstructed)
- Placement area condition (rating system)
- Repairs needed (Y/N)
- Known site issues
- Material type (available geotech)
- Site restrictions
- Adjacent regulatory classifications (water quality, essential fish habitats, primary nursery areas, etc.)
- Vegetation cover (e.g. grasses and herbaceous mix, hardwoods, pine, invasive species, etc.)
- Date of last vegetation management

### **Task 2: Populating DMPF database.**

Once all non-Federal DMPFs have been identified and cataloged, an assessment of each site's currently available capacity and condition will be conducted, and the resulting data will be populated in the newly developed GIS database. Information about each site will be obtained from the facility manager, or other readily available sources. Site visits may be performed to assess facility condition, but only if no other data source exists. Topographic surveying will not be performed for any placement site. Elevation information will be obtained utilizing available LIDAR or other survey/available data. The final deliverable for this task will be either a personal geodatabase or shapefile compatible with ArcGIS software.

### **Task 3: Assessment of Current Dredging Needs.**

A written report/spreadsheet will be developed identifying a list of potential non-Federal users of DMPFs, assessing their current dredging needs, identifying potential placement sites they use, determining their dredging frequencies, typical dredged volumes removed, and beneficial placement options. This information will be compiled through a series of phone or face-to-face meetings with NC Division of Water Resources (DWR), NC Division of Coastal Management (DCM), USACE Regulatory Offices, various coastal municipalities and county managers, and known DMPF users.

This would conclude Phase 1 of the PAS study.

### **PHASE 2: Assessment of Future Placement Needs.**

Phase 2 of the PAS DMMP study would consist of a written report assessing future dredged material capacity needs of the non-Federal users for a 20-year period. This effort would include identifying areas where new placement sites are needed and where potential new placement sites may be located. Information regarding any environmental concerns or requirements will also be addressed.