



# Regional Sediment Management Program

## Wilmington District: Masonboro Inlet Sediment Budget



### Description

Develop an updated sediment budget for Masonboro Inlet which is to be used to update the existing sand management plan including the bypass and backpass quantity distribution for material dredged from the inlet, as well as locations along the adjacent beaches. Investigate dredging alternatives, through the development of a detailed CMS model of the inlet, for removal of the Wrightsville Beach spit and the impact on flow through the navigation channel for each alternative.

### Location Map



Wrightsville Beach and Masonboro Inlet Projects

### Issue/Challenge To Address

Develop updated sediment budget to refine the existing sediment bypassing/backpassing rate. Sand sources have become limited in the area, increasing the importance of placement quantities and locations along the two adjacent disposal areas to Masonboro Inlet.

### Expected Products

- Updated sediment budget for Masonboro Inlet using SBAS
- Calibrated CMS model of the inlet to be used for alternative analysis
- RSM technical note
- Updated dredging record database

### Stakeholders/Users

USACE, New Hanover County

### Projected Benefits

Improved bypassing rates will help manage the sediment resource within the inlet to maximize beneficial use of the material. Also, the alternative analysis of removal of portions of the Wrightsville Beach spit could strengthen the Corps position when applying for regulatory clearance for removal of this area which is deemed critical bird habitat. The growth of this spit has been linked to redirected flow within the

navigation channel which has resulted in undermining of the South Jetty. This undermining resulted in sloughing of the jetty and required the jetty to be refurbished in 2013.

**Leveraging Opportunities**

The RSM funding will be leveraged with District funds to fully fund the development of a sediment budget and detailed CMS model for the Masonboro Inlet complex.

**Points of Contact**

Kevin Conner (SAW), Doug Wall (SAW), Layla Kashlan (SAW)

**Participating Partners**

RSM-Wilmington District