



US Army Corps
of Engineers
Wilmington District

Wrightsville Beach, NC (Coastal Storm Damage Reduction)

- **Sponsor: Town of Wrightsville Beach**
- **Initial project completed in 1965 and reauthorized in 1986**
- **Project covers 2.7 miles of shoreline**
- **Nourishment scheduled every 4 years**
- **Last nourishment cycle completed in FY 2014**
- **Next nourishment cycle scheduled for FY 2018**
- **Federal participation in nourishment is currently authorized through FY 2036**



CONGRESSIONAL DISTRICT: NC 7

DATE: 23 February 2015

1. **AUTHORIZATION:** Flood Control Act of 1962 and the Water Resources Development Act (WRDA) of 1986.
2. **LOCATION AND DESCRIPTION:** Wrightsville Beach is located in New Hanover County in southeastern North Carolina adjacent to the Atlantic Ocean. The project consists of a dune with a base generally bordering at or near the building line with a crown width of 25 feet at an elevation of 15 feet national geodetic vertical datum (NGVD), together with an integral shoreline berm with a crown width of 50 feet and a top elevation of 12 feet NGVD for a total distance of 14,000 feet.

Coastal erosion at Wrightsville Beach is caused by two major factors: storm related coastal erosion and impacts from the Masonboro Inlet navigation project's jetties. Consequently, the Wrightsville Beach project is budgeted under two business lines. First, coastal erosion due to coastal storms is budgeted in the flood risk management business line and is appropriately cost shared with Federal construction and non-Federal required contributed funds. Second, impacts of the Masonboro Inlet jetties are budgeted under the navigation business line and are accomplished using Federal construction funds. The jetties have impacted the natural replenishment of sand on Wrightsville Beach and Masonboro Island. Mitigation prescribed for these impacts is to bypass sand to both islands which is normally accomplished at the same time Wrightsville Beach is nourished on a 4 year periodic cycle.

PROJECT INFORMATION – Wrightsville Beach, NC (Coastal Storm Damage Reduction) –
Continued

3. **COST ESTIMATE:**

Total Estimated Project Cost (Price level as of 1 October 2014):

\$45,283,000	Federal (65%)
<u>\$24,383,000</u>	Non-Federal (35%)
\$69,667,000	Total

4. **FEDERAL FUNDING ALLOCATION THRU FY 2014:** \$18,250,000.

5. **FY 2015 FUNDING ALLOCATION:** \$0. Carry-in funds are being used to initiate an economic update.

6. **FY 2016 BUDGET AMOUNT:** \$0.

7. **KEY DATES:** The next periodic nourishment cycle is scheduled for FY 2018.

8. **OTHER INFORMATION:** Initial construction of the Wrightsville Beach coastal storm damage reduction project was completed in 1965. A Section 111 study was approved in 1980 and established that the coastal erosion/damage at Wrightsville Beach resulted from coastal erosion due to storms, and the Federal navigation improvement/jetties at Masonboro Inlet which creates a requirement for periodic bypassing of sand to Wrightsville Beach and Masonboro Island. The coastal storm damage erosion portion of the Wrightsville Beach project is cost shared at 65% Federal and 35% non-Federal and the Masonboro Inlet impacts portion to Wrightsville Beach is not cost shared (100% Federal). This results in an ultimate cost sharing of 81% Federal and 19% non-Federal.

Also, cumulative total project costs through FY 2014, \$22 million, are approximately within \$14 million of this project's Section 902 maximum project cost limit, as defined by the Water Resources Development Act of 1986. Since the cumulative total project costs cannot exceed the Section 902 limit, currently projected at \$36 million and based on the FY 2014 periodic nourishment cost for coastal storm damage reduction features only of \$5 million, there are likely approximately two future nourishments that the Federal government can cost share, before the Section 902 limit would be exceeded. The Corps is planning to look at all practical cost reduction measures to increase the total number of future periodic nourishment cycles that could be accomplished with cost-shared Federal funds. Subject to implementation of these measures, a new decision document/limited reevaluation report may be needed to support a possible new project authorization with a higher total project cost and Section 902 limit.