



US Army Corps  
of Engineers  
Wilmington District

## Projects Requiring Construction Authorization

### WEST ONSLOW BEACH AND NEW RIVER INLET TOPSAIL BEACH, NC:

- Sponsor: Town of Topsail Beach
- Chief's Report transmitted to Congress in April 2010
- Project is ready for construction authorization



### SURF CITY AND NORTH TOPSAIL BEACH, NC:

- Sponsor: Towns of Surf City and North Topsail Beach
- Chief's Report transmitted to Congress in April 2011
- Project is ready for construction authorization



### STANLY COUNTY WATER AND WASTEWATER INFRASTRUCTURE, NC:

- Sponsor: Stanly County, NC
- Design complete on final subproject
- Authorization needs to be modified before proceeding to construction on the Albemarle to Hwy 200 water main.



**CONGRESSIONAL DISTRICT:** NC 3, 7, and 8

DATE: 8 April 2013

#### 1. **CURRENT AUTHORIZATION:**

**West Onslow Beach and New River Inlet:** Water Resources Development Act of 1992 (for project of different dimensions)

**Surf City and North Topsail Beach:** Study Resolution adopted 16 February 2000 by House Committee on Transportation and Infrastructure for Surf City and resolution adopted 11 April 2000 for North Topsail Beach.

**Stanly County Water and Wastewater:** Section 219(f) (64) of the Water Resources Development Act of 1992, as amended on 15 December 2000 by the Omnibus Appropriation

## PROJECT INFORMATION - Projects Requiring Construction Authorization - Continued

Act, and Section 5114 of the Water Resources Development Act of 2007, authorized \$8,900,000 for water and wastewater infrastructure improvements in Stanly County.

### 2. ISSUES AND OTHER INFORMATION:

The West Onslow Beach and New River Inlet along with Surf City and North Topsail have signed Chief's Reports that have been subsequently transmitted to Congress. These projects are now ready for new construction authorization. Below is information regarding each of these projects.

#### **WEST ONSLOW BEACH AND NEW RIVER INLET**

The project focus is on coastal storm damage reduction for the 6-mile long ocean shoreline of the town of Topsail Beach. Topsail Beach is located at the southern end of Topsail Island adjacent to New Topsail Inlet in Pender County on the central North Carolina coast. Topsail Island is a 22-mile long and 0.5 mile wide barrier Island located approximately 40 miles north- east of Wilmington, NC. Due to the northeast-southwest orientation of the coastline, the island faces the Atlantic Ocean on the southeast. Topsail Beach is uniformly developed with most of the land suitable for development already occupied with structures. The peak seasonal population is estimated at 7,000.

The purpose and need for action includes reduction of potential future damages from hurricanes and storms to residential and commercial properties and public infrastructure, and potential emergency response costs associated with significant storms. The Topsail Beach shoreline also provides environmental habitat benefits to sensitive species, protects inland properties and facilities, and constitutes a significant recreational resource in and of itself.

The town of Topsail Beach has experienced severe beach erosion and heavy property damage as a result of storm surges from hurricanes in 1996 and 1999 and northeasters over the recent years. In addition to property damage, these storms have severely damaged or destroyed the primary dune system which provides a degree of natural protection for shoreline facilities. The average annual erosion rate is 4.5 feet per year within the project area. Losses to structures and related damages would result in a tremendous loss to the town's tax base. The recommended improvements are essential to the economic welfare of the town of Topsail Beach. Average annual benefits include \$9,516,000 for coastal storm damage reduction, \$5,500,000 in recreation benefits, and \$87,000 in reduced emergency costs.

The total cost estimate for the initial construction is \$39,400,000 (\$25,600,000 Federal and \$13,800,000 non-Federal) and the cost estimate for the future nourishments is \$265,600,000 (\$132,800,000 Federal and \$132,800,000 non-Federal).

## **SURF CITY AND NORTH TOPSAIL BEACH**

The Surf City/North Topsail Beach project would provide coastal storm damage reduction to the towns of Surf City and North Topsail Beach, which are also located on Topsail Island in NC. Topsail Island is a frequent target for hurricanes and tropical storms tracking along the Mid-Atlantic coast. Major storms in the 1990s caused significant erosion and decimated the island's natural dunes, resulting in major property damage. The project area is approximately 10 miles in length with 6 miles within the jurisdiction of the town of Surf City and the remaining 4 miles in the jurisdiction of the town of North Topsail Beach. The focus of the project is to reduce storm damages for the shoreline extending from the town limits of Topsail Beach/Surf City to the northern end of the island. The recommended plan provides for a project including a 50 ft wide berm at an elevation of 7 feet, backed by a 15 ft high protective dune along 10 miles of shoreline. Potential borrow areas have been identified approximately 1 – 6 miles offshore as well as areas within New River Inlet itself. The project area is uniformly developed with few undeveloped lots and a wide range of structures consisting of mostly single-family dwellings, some multi-unit apartments/condominium buildings, commercial buildings, and a few hotels. Most of the land suitable for development is already occupied.

The purpose and need for coastal storm damage reduction along the Surf City and North Topsail Beach shorelines is to reduce damages resulting from beach erosion and waves from significant hurricanes and northeasters. Storm damage reduction measures would also provide incidental environmental and recreational benefits as well.

The total cost estimate for initial construction is \$127,973,000 (\$83,182,000 Federal and \$44,791,000 non-Federal) and the cost estimate for the future nourishments is \$208,497,212 (\$104,248,606 Federal and \$104,248,606 non-Federal).

### **3. OTHER AUTHORIZATION ISSUES:**

## **STANLY COUNTY WATER AND WASTERWATER INFRASTRUCTURE**

Based on recently completed designs, the current cost estimate for the Albemarle to HWY 200 water main subproject is \$7,952,647. Total includes \$22,437 for letter report (completed), \$630,000 for design (completed) and \$7,300,210 for construction. Construction could only occur if the Federal authorization for this project would need to be increased from \$8.9 million to \$11.5 million prior to initiation of construction of the Albemarle to NC Hwy 200 subproject.

The Albemarle to NC Highway (Hwy) 200 Water Transmission Main subproject is the third out of three subprojects proposed for implementation within Stanly County. The new water transmission main would link the city of Albemarle, NC Highway 205, and NC 73.

## PROJECT INFORMATION - Projects Requiring Construction Authorization - Continued

This line will provide increased capacity and reliability in the southwestern area of the county, including service to residences and business along the 12-mile route. This subproject includes the installation of an estimated 63,000 linear feet of 12-inch water transmission main as well as the construction of a pumping station located at the intersection of Austin and Canton Roads. The 12-inch waterline would follow Canton Road and Austin Road ending at the connections with the existing waterlines at both Hwy 205 and Hwy 73. Design of this water transmission main was initiated in FY 2010 and completed in FY 2012.