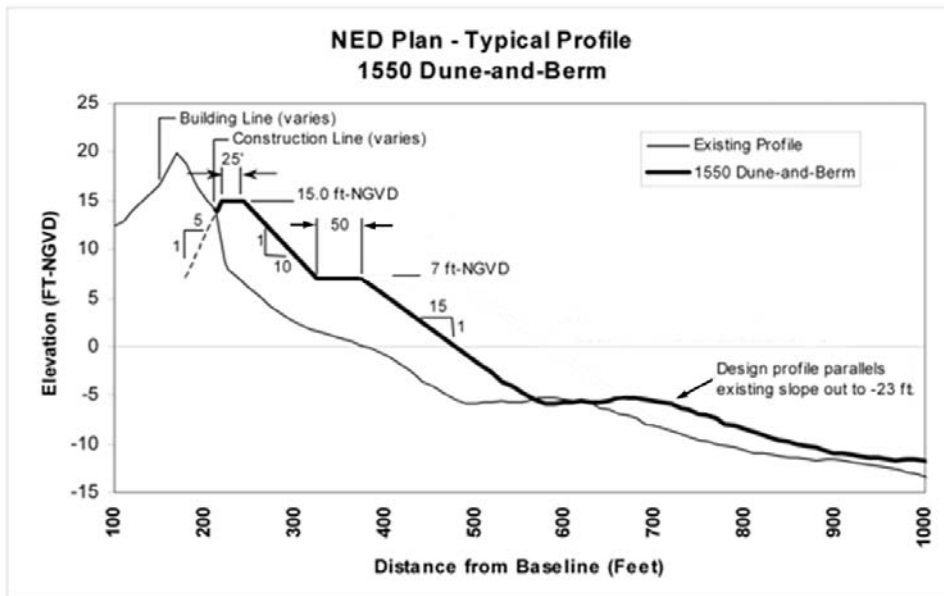


Surf City and North Topsail Beach, NC

27 August 2010



Abstract: Surf City and North Topsail Beach lie along the central and northern end of Topsail Island, a sandy barrier island about two miles off the mainland of Pender and Onslow Counties in southeastern North Carolina. Due to its location on the Atlantic Coast, hurricanes and other storms cause damage to structures and the shoreline. Notable recent hurricanes damaging the towns were Bertha and Fran in 1996 and Floyd in 1999.

The proposed project for coastal storm damage reduction includes a 52,150-foot long dune and berm system to be constructed to a dune elevation of 15 feet NGVD fronted by a 7-foot NGVD (50-foot wide) beach berm. The project also includes renourishment at 6-year intervals. Other incidental items are dune vegetation and pedestrian dune walkovers. Sand for the project would be dredged from borrow sites identified offshore from Surf City and North Topsail Beach.

The total average annual benefits are \$39,775,000 with \$11,180,000 in total annual costs resulting in average annual net benefits of \$28,595,000 and a benefit to cost ratio of 3.6 to 1. Benefits derive from reduction of damages from storm waves and storm-induced erosion. However, it will not prevent damage from sound-side flooding, winds, or wind-blown debris. The project is not designed to prevent loss of life. Loss of life would be avoided by evacuation prior to storms. The project will also produce incidental, yet significant, recreation benefits. There are not expected to be any significant adverse impacts to the environment. The project will also provide a wider, more sustainable beach for both recreation and as a sea turtle nesting habitat.

The recommended plan is the National Economic development Plan (NED). The estimated costs are \$127,973,000 for initial construction and total cost for the seven planned renourishments is \$215,525,000 at October 2010 price levels and an interest rate of 4.375 percent. The estimated operating and maintenance cost is approximately at \$52,000 per year. The local sponsors, the Town of Surf City and Town of North Topsail Beach, would provide 1) public access and parking, 2) construction easements, 3) 35% of the project construction costs, including credit for easements, 4) 50% of periodic re-nourishment costs, and 5) all costs of Operation, Maintenance, Repair, Replacements, and Rehabilitation.

Report Documentation: Pertinent documentation on the project, the results of the CWRB, and subsequent Washington Level Review Actions are linked below.

- [CWRB Agenda](#)
- [Project Summary](#)
- [CWRB Briefing Slides](#)
- [CWRB Lessons Learned](#)
- CWRB Meeting Record
- State & Agency Review Comment Letters
- Documentation of Review Findings
- Proposed Chief of Engineers Report for CWRB
- ASA(CW) Memo to OMB
- OMB Response
- Congressional Notification
- Signed Record of Decision
- Authorization

Additional Information:

[South Atlantic Division](#)

[Wilmington District](#)