



Absecon Island Shore Protection

Project Update: February 2004

1. INTRODUCTION

Since our last publication two years ago, the Absecon Island, New Jersey shore protection project has moved out of the design phase and into construction. Sand placement for the beachfill and dune system in Atlantic City began December 25, 2003, and continues as of this writing.

This hurricane and storm damage protection project came about through the joint efforts of the U.S. Army Corps of Engineers (the Federal sponsor) and the New Jersey Department of Environmental Protection (the non-Federal sponsor). The goal of the project from its inception in September 1990 has been to curtail shoreline erosion and lower damages due to flooding and wave attack.

Several significant events over the past year have enabled the project to move forward. First, the Project Cooperation

Agreement was signed July 31, 2003. This document defines the relationship between the Corps and NJDEP in constructing this project and performing periodic nourishment over the 50-year project life. (The four municipalities on Absecon Island—Atlantic City, Ventnor, Margate and Longport—will enter into a State-Aid Agreement with NJDEP that delineates the roles of the state and respective local governments in meeting project requirements of the non-federal sponsor.)

Once the PCA was executed, the project was opened up for bids. The bid was awarded to Great Lakes Dredge and Dock Co. from Oak Brook, Ill., in September and construction began Oct. 22 when the Corps issued its Notice to Proceed to the contractor.

2. PROJECT BACKGROUND/DESIGN PLAN

Absecon Island has long been subject to beach erosion, wave attack and major flooding during coastal storms, especially nor'easters. Of all the New Jersey barrier islands, this one has historically suffered the greatest amount of damage. One storm after another has caused significant destruction to boardwalks, bulkheads,

buildings and roadways. The majority of residential structures on Absecon Island are older homes built on slab foundations, which increases their vulnerability to the damaging forces of major storm events. Moreover, continued erosion in recent years has reduced the height and width of the beachfront, increasing the potential for damages and the need for storm protection measures.

Atlantic City has already nourished the oceanfront numerous times since 1936 in an effort to maintain a beach in the northern portion of the city. A series of

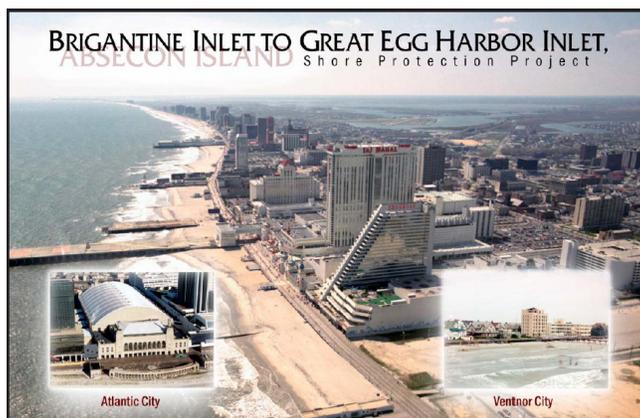
groins was put in place to stabilize the shoreline, but erosion has persisted nonetheless.

South and west of Atlantic City, the communities of Ventnor, Margate and Longport have gently sloping, low-elevation beaches with bulkheads in place for protection. However, recent storms brought about flooding from the ocean side despite the presence of those bulkheads. The entire

Borough of Longport is extremely susceptible to inundation and wave attack during a major coastal storm. Due to a beach that ranges from limited to non-existent, combined with the absence of dunes, shore protection in Longport consists of a curved-face concrete seawall and timber bulkhead. The borough has sustained considerable property damage due to bulkhead failures, making the need for beachfill a priority.

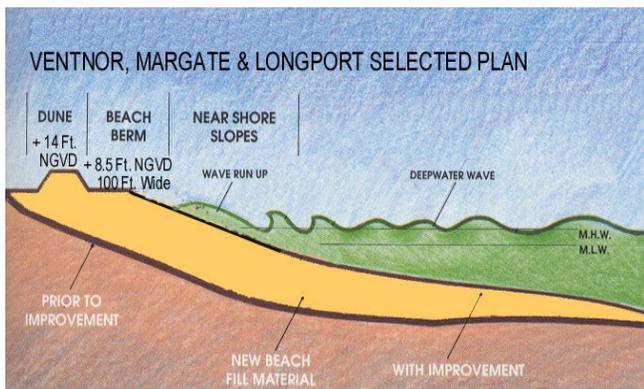
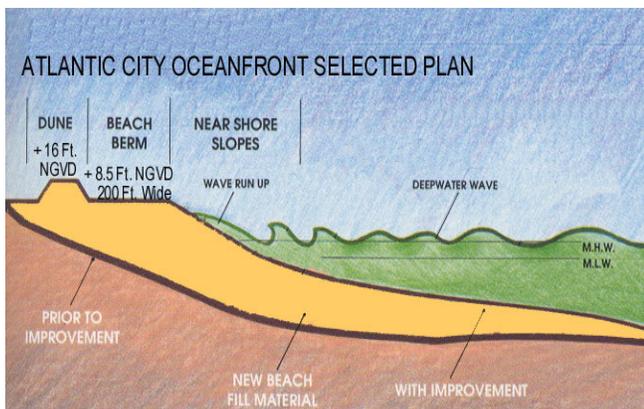
Our previous brochure, "Absecon Island Shore Protection: The Planning Behind the Project," (published February 2002) laid out the process behind development of a shore protection plan for Absecon Island that addresses the problems described above. The Corps selected two beachfill-and-dune design plans, one applying to Atlantic City and the other encompassing Ventnor, Margate and Longport.

The following table and figures contrast the key elements of the two designs. Each provides the greatest amount of protection for the area covered and is technically sound, economically justified, and socially and environmentally acceptable.



ABSECON ISLAND SELECTED PLAN		Atlantic City	Ventnor/ Margate/ Longport
Beachfill	Berm Width	200 feet	100 feet
	Top Elevation	+7.25 NAVD	+7.25 NAVD
Dune	Top Elevation	+14.75 NAVD	+12.75 NAVD
	Top Width	25 feet	25 feet
	Side Slopes	1V:5H	1V:5H
	Distance from Boardwalk	25 feet	25 feet

Overall the project will involve approximately 7.1 million cubic yards of initial fill, 1.7 million cubic yards of periodic nourishment every 3 years for the 50-year project life, beach access through walkovers placed at street ends, and approximately 90 acres of dune grass and 64,000 feet of sand fence to protect the dunes.



3. ECONOMICS

The initial project cost is estimated at \$62,944,000. This includes beachfill in all four municipalities and the construction of 0.3 miles of bulkhead along the Absecon Inlet frontage of Atlantic City. The total cost of periodic nourishment (every 3 years) for the 50-year project life is estimated at \$418,056,000. Both initial construction and periodic nourishment will be cost shared 65% federal and 35% non-federal for the duration of the project. The non-

Federal burden is in turn shared between NJDEP (75%) and all the communities (25%).

The project consists of two phases. Phase I is the beachfill in Atlantic City and Ventnor, with construction costs of \$17.8 million and \$6.2 million, respectively. Phase II will cover Margate and Longport with costs to be determined once beachfill begins in the two communities.

4. CONSTRUCTION

Construction officially began Oct. 22, 2003, when the Corps gave notice to proceed to the selected contractor, Great Lakes Dredge and Dock Co. Preconstruction surveys, the first step in the beachfill process, were completed Dec. 2. These surveys allow the Corps, who will manage the construction, and the contractor to more accurately determine the amount of sand that needs to be placed. Great Lakes then mobilized its equipment and began placing approximately 4.5 million cubic yards of sand (3.2 in Atlantic City, 1.3 in Ventnor) on Dec. 25.

Sand placement started at the northeast end of Atlantic City and is proceeding southwest into Ventnor. During construction, 2,000 feet of beach will be closed off to restrict public access to the active construction zone. Permanent staging areas for construction equipment, such as pipe sections and bulldozers, will be landward of the boardwalk near New Jersey and Albany Avenues in Atlantic City and adjacent to Suffolk Avenue in Ventnor. Temporary areas will set up adjacent to the active work area on the beach.

The beach profile will taper from a 200-foot berm to a 100-foot berm between Atlantic City and Ventnor over a distance of 1,000 feet. Construction of crossovers, sand fencing, and outfall extensions (within Atlantic City only) and planting of dune grass will follow sand placement. Beachfill operations will conclude in Atlantic City and Ventnor in March and May of 2004, respectively, and the other construction activities in May and June. Dune grass planting in Ventnor is scheduled for completion by December 2004 due to a November-April planting "window" for environmental purposes. Once the "new" sand has been placed, the Corps plans to monitor beachfill performance with semiannual surveys.

The Army Corps and NJDEP are currently coordinating with Margate and Longport to determine their willingness to participate in the project. A decision from the two communities is expected sometime in 2004.

5. UPCOMING EVENTS & OTHER ISSUES

A third issue of the Absecon Island Shore Protection Brochure, to be published in Spring 2004, will address project features in more detail. Subsequent issues will be printed in the fall and spring of each year.

For frequently asked questions, project schedule and progress, construction photographs, and current issues and events, please visit the project website listed below.

For more information please see our web page at: www.nap.usace.army.mil/cenap-dp/projects/absecon/absecon.htm or contact the Public Affairs Office, Philadelphia District, U.S. Army Corps of Engineers at (215) 656-6515.