NJDEP 2009 Beachfill
Strathmere, Sea Isle City, North Wildwood, & Stone Harbor, NJ

Bureau of Coastal Engineering
New Jersey Dept. of Environmental Protection
Office of Engineering & Construction
New Jersey’s
Shore Protection Program

State of New Jersey
Jon S. Corzine, Governor

Dept. of Environmental Protection
Mark N. Mauriello, Acting Commissioner

Natural & Historic Resources
Amy Cradic, Assistant Commissioner

Office of Engineering & Construction
David Rosenblatt, Administrator
To administer beach nourishment, shore protection and navigational dredging projects throughout the State to:

- Provide for the protection of life and property along the coast
- Preserve our State’s vital coastal resources
- Maintain safe and navigable waterways
Shore Protection Fund
Dedicated for…

“To protect existing development and infrastructure from storm surges, sea-level rise and shoreline migration through dune creation and maintenance, beach nourishment projects, and construction and repair of shore protection structures.“

$25 million dedicated annually
Realty Transfer Tax (N.J.S.A. C.13:19-16.1)
Shore Protection Funding
How It’s Divided

Federal Projects - NJDEP - local sponsor in these projects
- Studies
- Storm Damage Reduction/Shore Protection
- Environmental Restoration

State Projects - Municipalities - local sponsor in these projects
- Storm Damage Reduction/Shore Protection

Professional and Technical Services -
- Stevens Institute of Technology
- Richard Stockton College of New Jersey
- Division of Fish and Wildlife
- New Jersey Geological Survey
Shore Protection Construction
Cost Share Structure

Shore Protection Project

FEDERAL
- 65% Federal
- 35% State/Local

STATE
- 75% State
- 25% Local

New Jersey Dept. Environmental Protection
Bureau of Coastal Engineering
Shore Protection Program
Strathmere
Existing Conditions

Project Overview Natural Area – Williams Ave.

Natural Area – Viewing Northwest

Seaview Ave – Viewing South
Strathmere
Existing Conditions

Project Overview Webster Ave. – Polk Ave.

Tecumseh Ave. – Viewing South

Jasper Ave. – Viewing South
Strathmevere
Project Specifics

- **Material**
  - 891,000 Cubic Yards

- **Template**
  - Varying Width Berm
  - +6.75 NAVD88
  - 30:1 Beach Slope

- **Location**
  - State Natural – Polk Ave.
North Wildwood
North Wildwood
Existing Conditions

Project Limits 2nd Ave. – Poplar Ave.

Viewing South @ 2nd Ave.   Viewing North @ 24th Ave.
North Wildwood
Project Specifics

• Material
  – 1,186,400 Cubic Yards

• Template
  – 300’ Wide Berm
  – +6.50 NAVD88
  – 25:1 Beach Slope, 12:1 Toe Slope

• Location
  – Terminal Groin @ 2nd Ave – Poplar Ave
Stone Harbor
Existing Conditions

Project Limits 98th Street – 111th Street

Viewing South @ 98th St.

Viewing North @ 111th St.
Stone Harbor
Project Specifics

- **Material**
  - 245,000 Cubic Yards

- **Template**
  - 150’ Wide Berm
  - +7.25 NAVD88
  - 20:1 Beach Slope, 12:1 Toe Slope

- **Location**
  - 98th Street – 111th Street
Sea Isle City Beach Nourishment
Overview

Proposed Sea Isle City Beach Nourishment Project
40th to 52nd Streets

Proposed Sea Isle City Beach Nourishment Project
1st Street to 15th Street

Approximate Limits of the 40th to 52nd Streets Reach

Approximate Limits of the 1st to 15th Streets Reach
Sea Isle City Beach Nourishment History

Whale Beach – Circa 1980
Sea Isle City Beach Nourishment
History – February 4 - 5, 1998 - Northeaster

February 6, 1998

March 30, 1998
Sea Isle City
Existing Conditions

Whale Beach – 1st Street – 15th Street

Viewing North @ 5th St.  Viewing South @ 5th St.
Sea Isle City
Existing Conditions

40th Street – 52nd Street

Viewing North @ 45th St.  Viewing South @ 45th St.
Sea Isle City Beach Nourishment
Scope of Work

• **Total Sand:** 394,797 C.Y.
  – 216,630 C.Y. : 1<sup>st</sup> St. – 15<sup>th</sup> St. (Whale Beach)
  – 178,167 C.Y. : 40<sup>th</sup> St. – 52<sup>nd</sup> St.

• **Borrow Area**
  – Corson’s Inlet
  – Varying Depths: -14’ – -20’ NAVD88’

• **Construction:** North to South

• **Production Potential:** 20,000 - 25,000 C.Y.
Sea Isle City Beach Nourishment
Borrow Area - Corson’s Inlet
Sea Isle City Beach Nourishment
Borrow Area - Corson’s Inlet

Concept View

©Diamond
- Beach berm Fixed elevation: +7.00 feet NAVD88
- Berm width: 100’
- Offshore slope: 30:1
- 216,630 C.Y.
• Beach berm Fixed elevation: +7.00 feet NAVD88
• Berm width: 100’
• Offshore slope: 30:1
• 178,167 C.Y.
• **Contract**: 180 Days

• **Mobilization**: 2\textsuperscript{nd} Week of July

• **Construction Start**: 1\textsuperscript{st} Week of September

• **Sea Isle Completion**: Last Week of September

• **Total Project Construction Completion**: Jan. - 2010
• Dredge Pipeline
• Beach Closings: 1,000’ min. sections
  – Public Safety
  – Adequate Staging
• 24 Hour Operation
  – Continuous State Inspection
• Structure Monitoring
  – Adjacent to Structures
Sea Isle City Beach Nourishment
Proposed Project Costs

- Total Project Costs: $20,554,651.40
- Sea Isle City Proposed Costs: $3,613,971.73
- Cost Share:
  - State = $2,505,478.80
  - Municipality = $903,492.93

Consolidation costs savings
- $835,159.60 if Stone Harbor Awarded
Sea Isle City Beach Nourishment
Environmental Concerns

• **Piping Plover**
  - Current conditions not favorable for plover habitat but have historically utilized the area

• **Archaeological Resources**
  - Outside of project footprint
  - Protective measures within the project footprint

• **Munitions/Debris**
  - Screened at Intake
  - Screened at Discharge