



# 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

# Bureau of Coastal Engineering

Purpose...

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

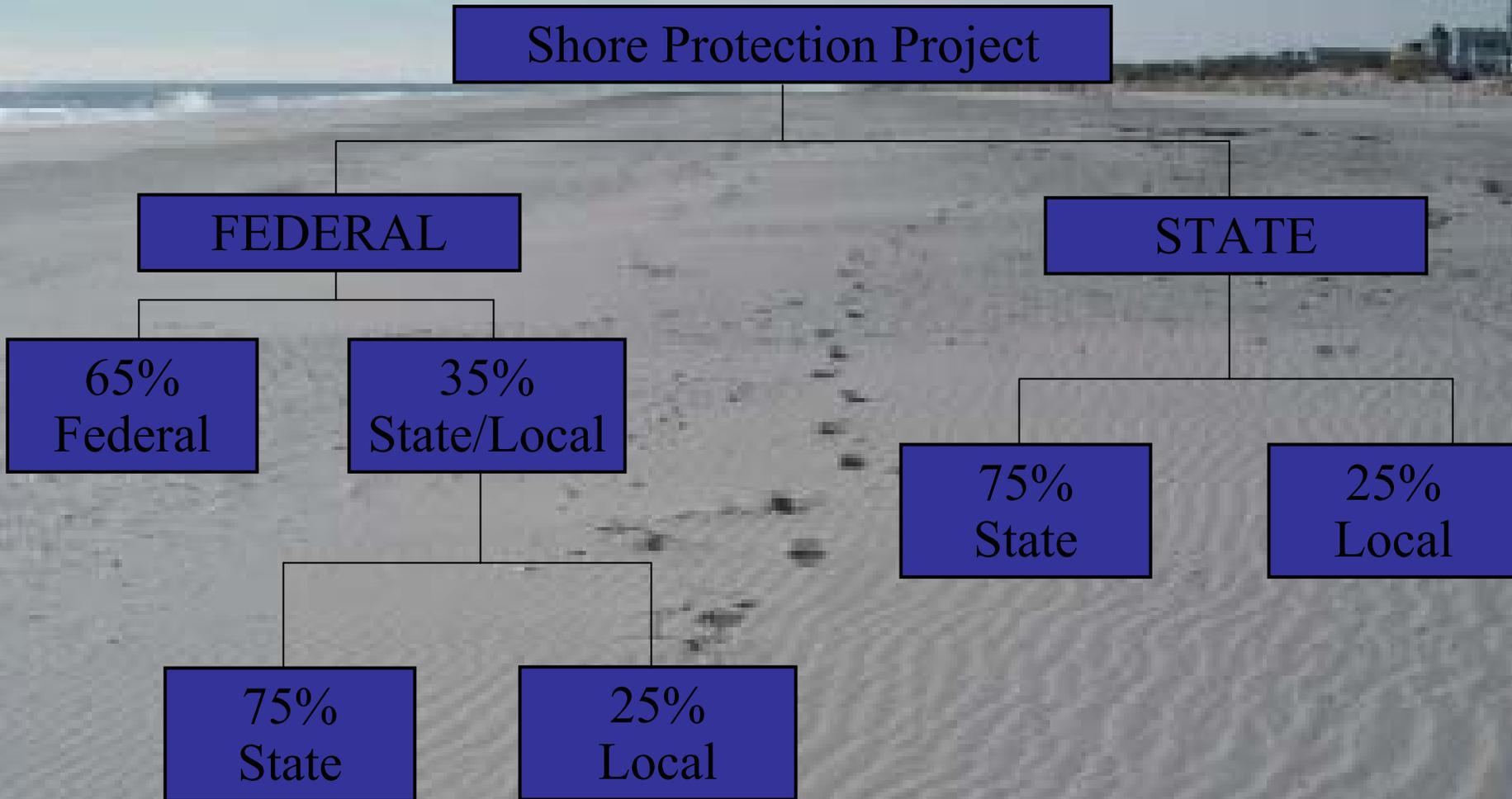
### Professional and Technical Services -

- 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





# Strathmere





# Strathmere

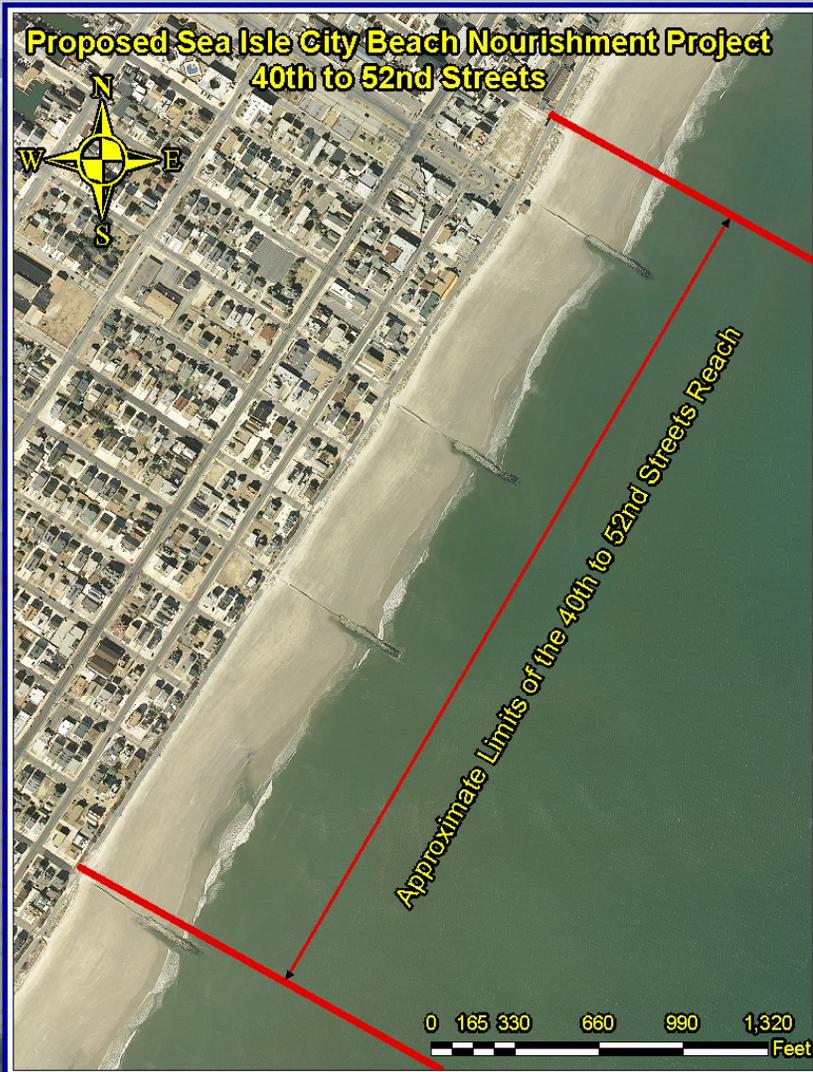
## Project Specifics



- **Material**
  - 891,000 Cubic Yards
- **Template**
  - Varying Width Berm
  - +6.75 NAVD88
  - 30:1 Beach Slope
- **Location**
  - State Natural – Polk Ave.



# Sea Isle City





# Sea Isle City

## Project Specifics



- **Material**
  - 394,797 Cubic Yards
- **Template**
  - 100' Wide Berm
  - +7.00 NAVD88
  - 30:1 Beach Slope
- **Location**
  - 1<sup>st</sup> Street – 15<sup>th</sup> Street
  - 40<sup>th</sup> Street – 52<sup>nd</sup> Street



# North Wildwood





# North Wildwood

## Project Specifics



- **Material**
  - 1,186,400 Cubic Yards
- **Template**
  - 300' Wide Berm
  - +6.75 NAVD88
  - 25:1 Beach Slope, 12:1 Toe Slope
  - Dune @ elevation +14.75 NAVD88, 25-foot wide crest
- **Location**
  - Terminal Groin @ 2<sup>nd</sup> Ave – Poplar Ave



# Stone Harbor



# Stone Harbor Beach Nourishment History



103<sup>rd</sup> Street - 1998



New Jersey Dept. Environmental Protection  
Bureau of Coastal Engineering

Shore Protection Program



# Stone Harbor Existing Conditions



Project Limits 98<sup>th</sup> Street – 111<sup>th</sup> Street



Viewing South @ 98<sup>th</sup> St.



Viewing North @ 111<sup>th</sup> St.



# Stone Harbor Existing Conditions



Viewing South @ 101<sup>st</sup> St.



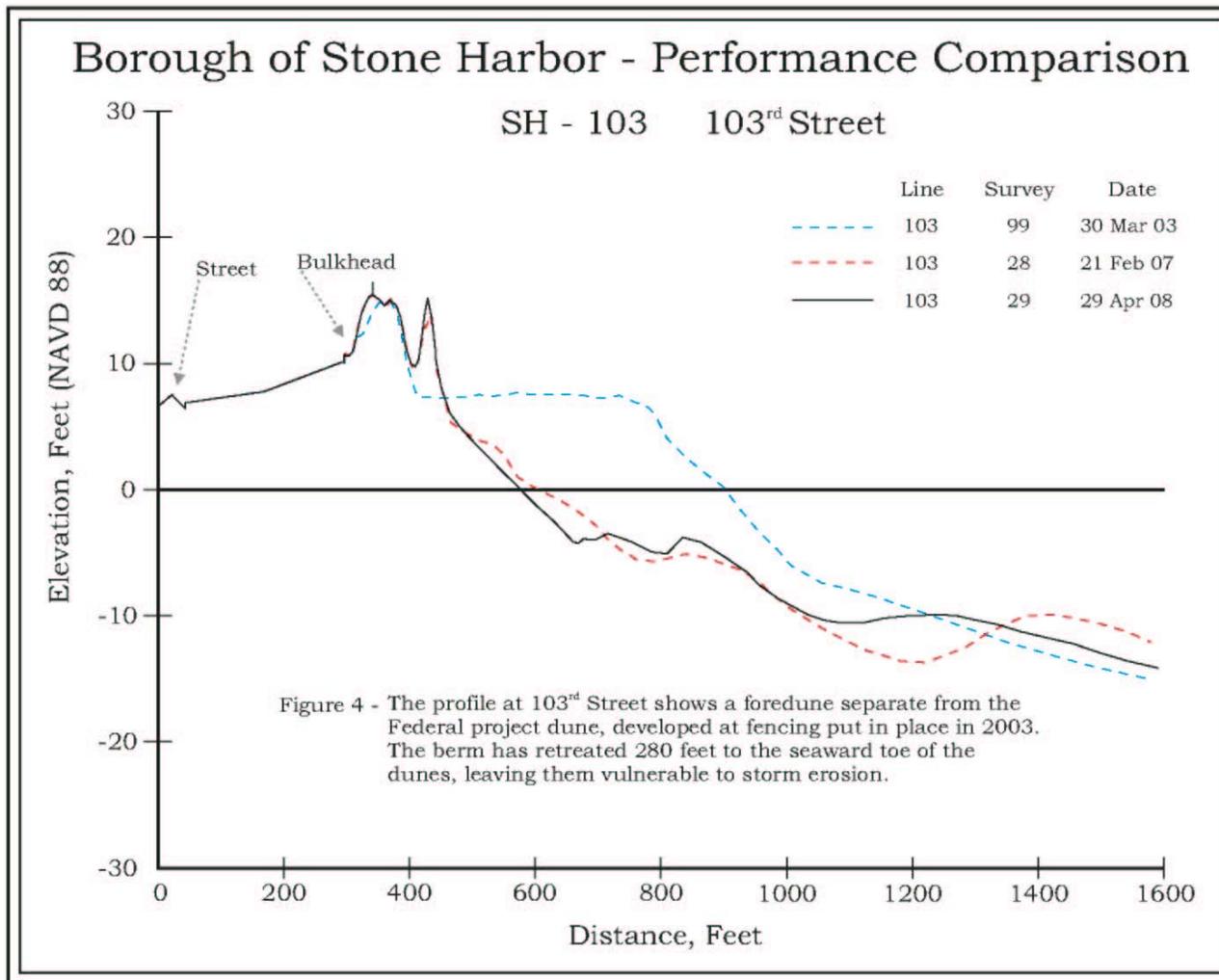
# Stone Harbor Existing Conditions



Viewing North @ 104<sup>th</sup> St.



# Stone Harbor Existing Conditions





# Stone Harbor

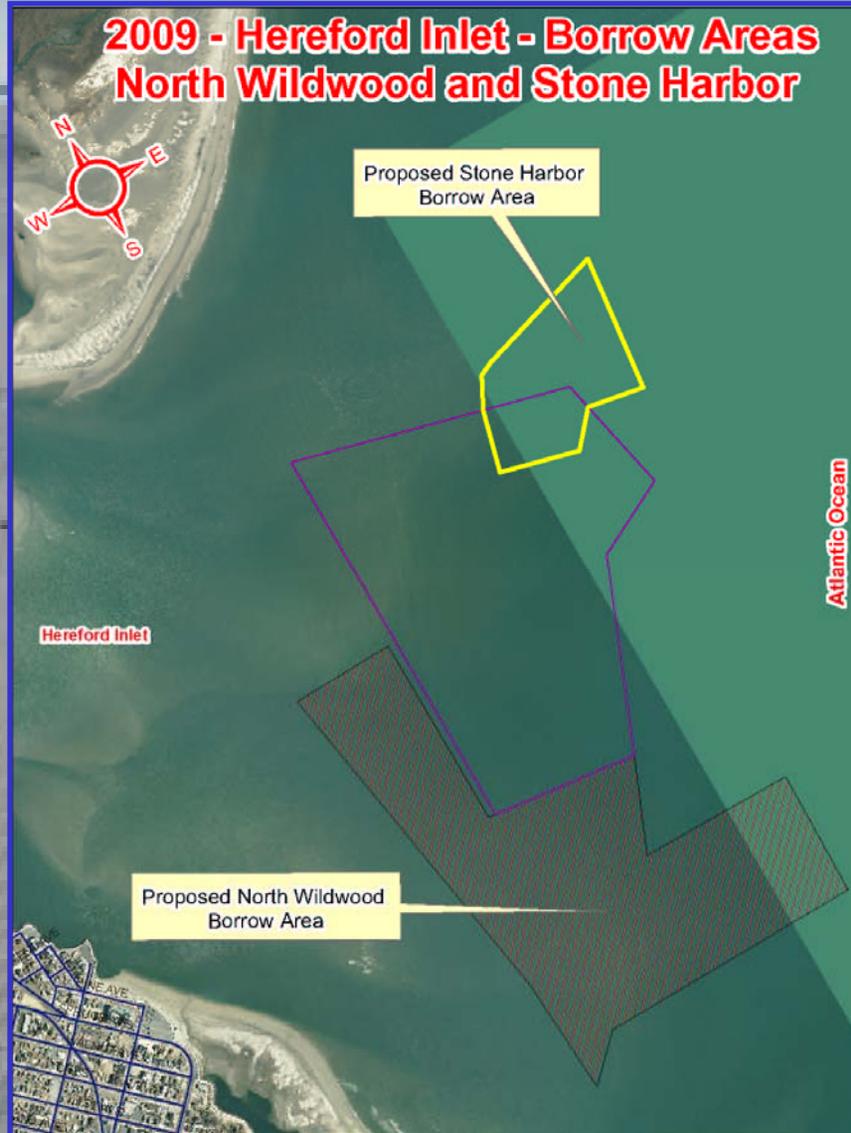
## Project Scope



- **Material**
  - 245,000 Cubic Yards
- **Borrow Area**
  - Hereford Inlet – Portions of the USACE approved area
  - Depth: - 26.0 feet NAVD88
- **Template**
  - 150' Wide Berm
  - +7.25 NAVD88
  - 20:1 Beach Slope, 12:1 Toe Slope
- **Location**
  - 98<sup>th</sup> Street – 111<sup>th</sup> Street



# Stone Harbor Beach Nourishment Borrow Area – Hereford Inlet





# Stone Harbor Beach Nourishment

## What To Expect



- Dredge Pipeline and Heavy Machinery
- Beach Closings: 1,000' min. sections
  - Public Safety
  - Adequate Staging
- 24 Hour Operation
  - Continuous State Inspection
- Structure Monitoring
  - Adjacent to Structures

# Great Lakes Dredge and Dock Company



- Dredge ILLINOIS
- 30 inch discharge diameter
- Capable of pumping 2,500 cubic yards of sand 25,000 feet per hour

*The Illinois at work on Chesapeake Bay.*

# Stone Harbor Beach Nourishment

## Proposed Project Costs

- **Total Project Costs: \$ 22,282,401.40**
- **Stone Harbor Proposed Costs: \$ 2,547,750.00**
- **Cost Share:**
  - **State = \$ 1,910,812.50**
  - **Municipality = \$ 636,937.50**
    - **Mobilization costs spilt amongst 4 towns**



# Stone Harbor Beach Nourishment Environmental Concerns

- **Piping Plover/Beach Nesting Birds**
  - Current conditions not favorable for habitat within footprint but have historically utilized the region
- **Archaeological Resources**
  - Protective measures within the Borrow Area footprint
- **Munitions/Debris**
  - Screened at Intake
  - Screened at Discharge



New Jersey Department of Environmental Protection

***Shore Protection Program***



***[www.nj.gov/dep/shoreprotection](http://www.nj.gov/dep/shoreprotection)***