



# New Jersey Shore Protection Beach Haven



## Merivale Avenue Geotube Stabilization Project



**New Jersey Dept. of Environmental Protection  
Office of Engineering & Construction  
Bureau of Coastal Engineering  
Benjamin Keiser, Manager**



**Borough of Beach Haven  
Ocean County, New Jersey  
Michael Battista, Mayor  
Frank Little, Municipal Engineer**



# New Jersey's Shore Protection Program



State of New Jersey

Chris Christie, Governor

Kim Guadagno, Lt. Governor

Dept. of Environmental Protection

Bob Martin, 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 -

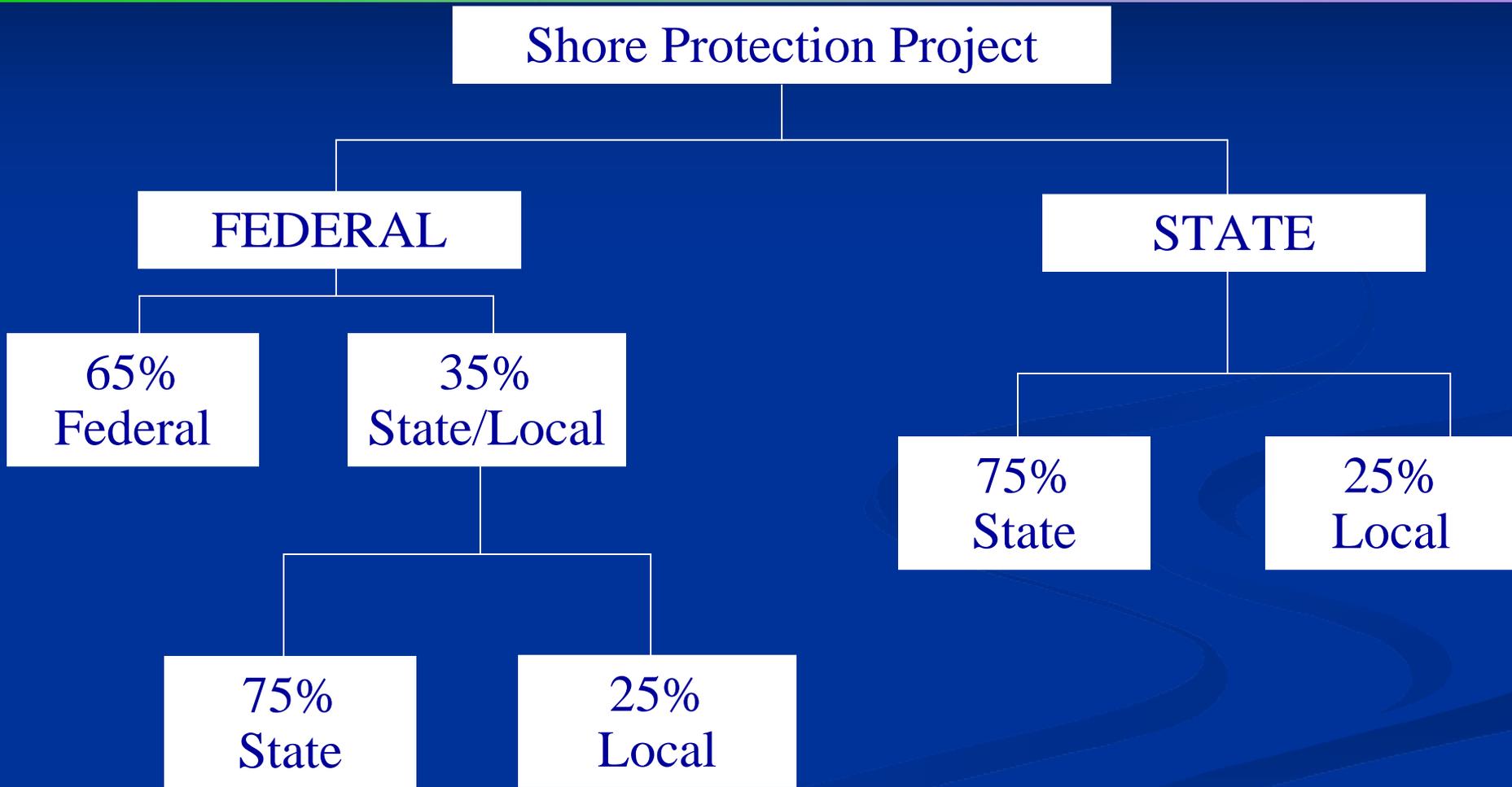
- Stevens Institute of Technology
- Richard Stockton College of New Jersey
- Division of Fish and Wildlife
- New Jersey Geological Survey



New Jersey Dept. Environmental Protection  
**Bureau of Coastal Engineering**

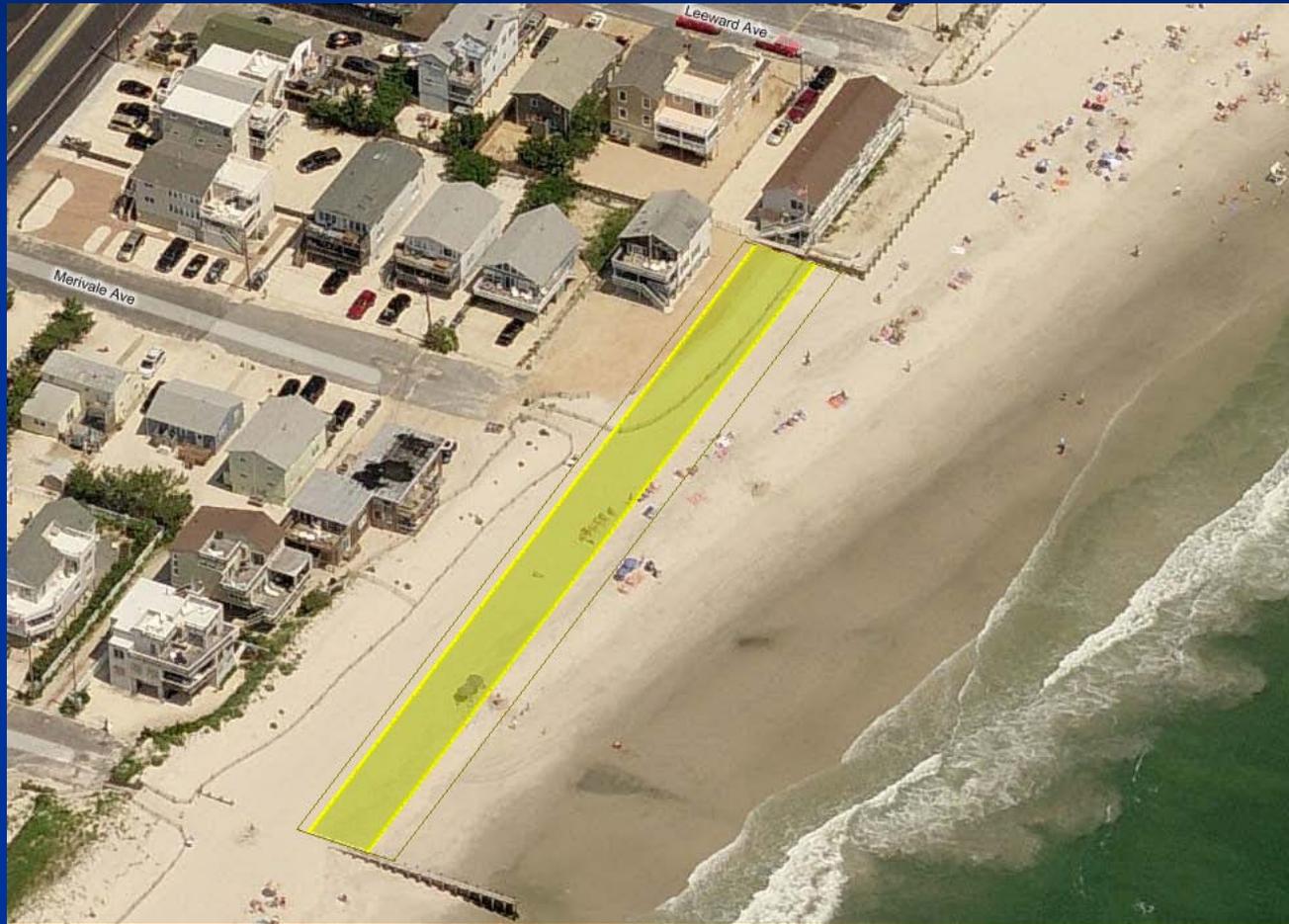
**Shore Protection Program**

# Shore Protection Construction – Cost Share Structure





# Merivale Avenue Geotube Stabilization Project Beach Haven, New Jersey



**Bureau of Coastal Engineering  
New Jersey Dept. of Environmental Protection  
Office of Engineering & Construction**



# Existing Conditions





# Existing Conditions





# Project Specifics

- **Geotube and Scour Apron**
  - **Total length: 390 Linear Feet**
  - **40-foot wide Scour Apron**
  - **Tube Dimensions – Stacked Pyramid Design**
    - **Top Tubes: Two 6 feet high x 12 feet wide x 195 feet long tubes**
    - **Bottom Tubes: Six 6 feet high x 12 feet wide x 130 feet long tubes**
    - **Anchor tubes: Six 5-foot diameter x 140 feet long tubes**
  - **Additional Sand**
    - **2,000 cubic yards from an approved upland source**
  - **Structure Monitoring**





# CONTRACTOR

- **Tri-State Dredging**
  - **Tom Clauss**
    - **Headquartered in Philadelphia, PA**
    - **Phone: (215) 624-2221**



# Typical Equipment





# Required Permits



- **State**
  - **CAFRA**
  - **Waterfront Development**
  - **Water Quality Certificate**
- **Federal**
  - **Department of Army Individual Permit**



# Project Costs

- **Total Project Cost: \$471,999.50**
  - **75% State = \$353,999.62**
  - **25% Municipality = \$117,999.88**
- **Town Responsible for Future Maintenance**



# Schedule



- **60 Day contract time**
- **Notice to Proceed: April 30, 2010**
- **Pre-Construction Meeting: May 5, 2010**
- **Construction End Date: July 4, 2010**



# What To Expect

- **Limited Access @ Merivale Avenue**
  - Provide public safety and adequate staging
- **Heavy equipment operation between Leeward and Nelson Avenues**
- **5 day a week/8 hour a day operations with continuous inspection**

# New Jersey Department of Environmental Protection *Shore Protection Program*



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