



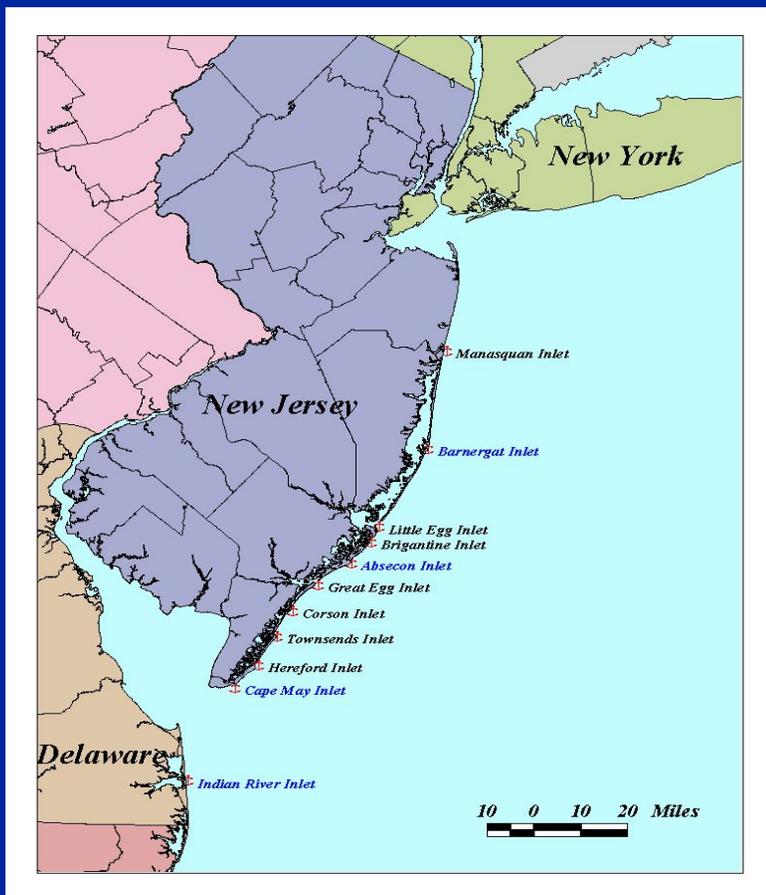
*CENAD Regional Sediment Management
(RSM) Workshop
8 September 2003 – New York, NY
Philadelphia District Coastal Program*





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Regional Sediment Management/ NJ Alternative Long-term Nourishment Study





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Non-Federal Sponsor

New Jersey Department of Environmental
Protection





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Feasibility Study Goals

- Manage, monitor and analyze NJ coastline and coastal projects with a regional, systematic approach
- Improve coastal beach nourishment project construction & performance, and reduce long-term periodic nourishment costs
- Better quantify and maintain available borrow areas for ongoing and future shore protection projects



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NJ Alternative Long-term Nourishment Study

- Federally authorized project as part of the NJ Shore Protection Study (Dec 1987)
- Reconnaissance Study (Sept 1990)
recommended feasibility study be conducted
- Feasibility cost-sharing agreement executed (Dec 2002)
- Funding through FY 2009



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Outline

- CENAP Coastal Shore Protection Project Overview
- Future RSM Efforts
- Ongoing RSM Efforts
- Implement RSM at Cape May, NJ

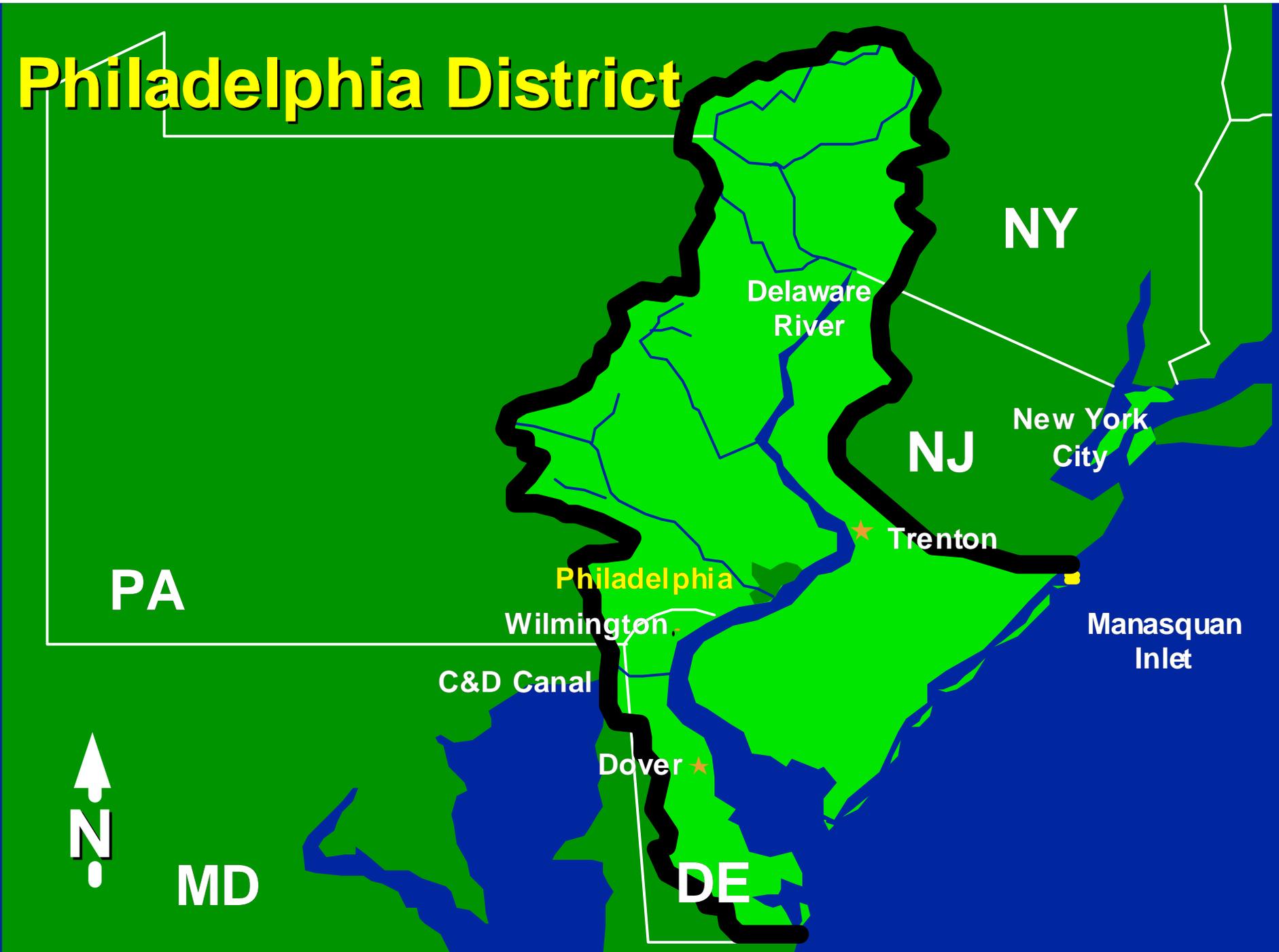


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CENAP Coastal Shore Protection Project Overview



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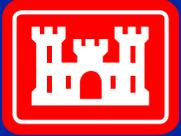
CENAP NJ Shore Protection Projects



CENAP Shore Protection Project Quantities (x 10⁶ Cubic Yards)

Project	Scheduled Initial Construction	Initial Beachfill	Renourishment (50-yr)	Borrow Area
Manasquan to Barnegat	Fall FY06	10.69	10.90	15.80
Barnegat to Little Egg	Fall FY05	7.40	13.30	26.20
Brigantine to Great Egg (Brigantine)	Fall FY04	0.65	2.60	unknown
Brigantine to Great Egg (Absecon)	Winter FY04	6.20	20.00	19.50
Great Egg to Townsends	Fall FY05	6.70	28.60	36.60
Ocean City	<i>Completed</i>	6.20	17.60	25.00
Townsends to Cape May	<i>Completed</i>	4.60	12.40	12.40
Hereford to Cape May	Fall FY08	unknown*	unknown*	unknown*
Cape May City	<i>Completed</i>	1.40	9.00	10.00
Lower Cape May Meadows	Fall FY03	2.40	7.80	unknown*
Estimated Total Quantities		46.24*	122.20*	129.70*

Sept, 2003



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Need for Regional Sediment Management

- 3 existing Federal beachfill projects in New Jersey (CENAP)
- 7 additional projects to initiate construction over next 5 years
- >45 MCY of sediment required for initial construction
- >120 MCY of sediment required over 50-yr project life
- Approximately 130 MCY presently available in borrow sites



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CENAP RSM Future Efforts

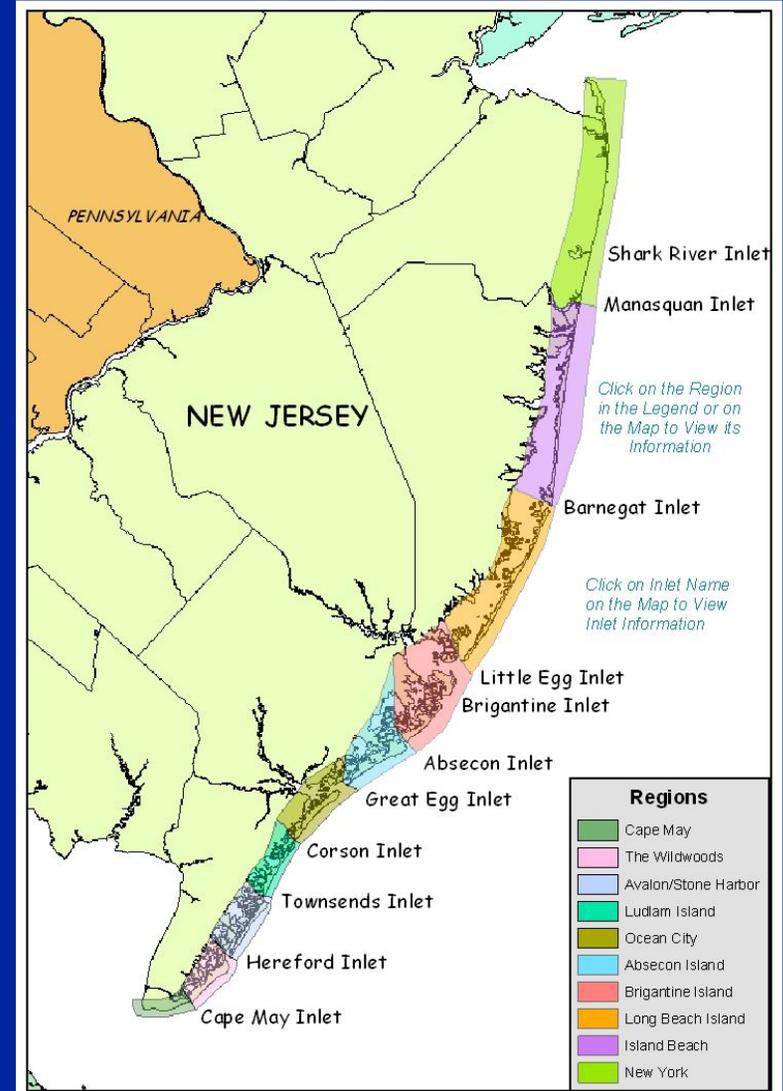




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Future Efforts

- Develop detailed sand source inventory for NJ Coast
- Perform regional sediment budget analysis
- Develop a comprehensive beach, inlet, and borrow area management plan





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Future Efforts

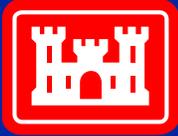
- Improved understanding of regional coastal processes
- Development of an efficient regional monitoring program
- Coordination with CENAN, CENAB and stakeholders to enhance data-sharing and decision making
- Implement RSM at the Cape May, NJ Demonstration Project



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CENAP RSM Ongoing Efforts





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CENAP RSM Geographic Information System

- Coordination with CESAM
- Facilitate coastal engineering analyses
- Enhance coastal data archive, distribution and presentation capabilities
- Enhance coordination within USACE and stakeholders



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CENAP RSM GIS

- Coastal Spatial Data Inventory Database
- GIS Data Standards
 - File name conventions
 - Establish data formats
- Consolidate in-house data

Data Inventory

Spatial Data Inventory

Data Classification

Start Date

End Date

Frequency

Data Type

Data Format

Coordinate System

Horizontal Datum

Vertical Datum

Geographic Location

Office Location

Description

Hand icons

Add Record

First Record

Last Record

Close

Record: 1 of 1



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Coastal Aerial Photography

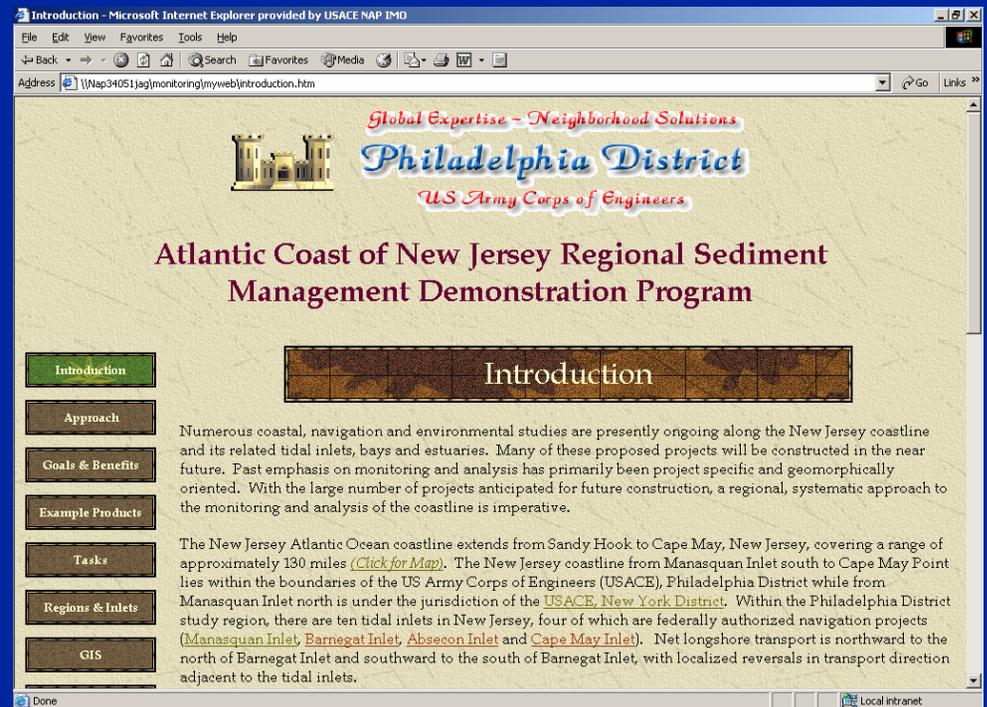
- New Jersey and Delaware Ocean Coasts
- Digital ortho-rectified imagery
- Scheduled for October 2003
- RSM GIS ‘baseline’ photography
- Establish shoreline and inlet position database, and characterize borrow areas



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CENAP RSM website

- Summary of CENAP RSM efforts
 - Approach
 - Goals & Benefits
 - Regions
 - GIS
 - Demonstration





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CENAP ATV-GPS beach surveying

- Comparable with handheld GPS measurements
- Used successfully at several site surveys
- Continued use of technology



An aerial photograph of Cape May, New Jersey, showing the coastline, a town, and a lighthouse. The text is overlaid on the image in a white, serif font with a drop shadow.

Regional Sediment Management: Cape May, NJ Demonstration Project



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