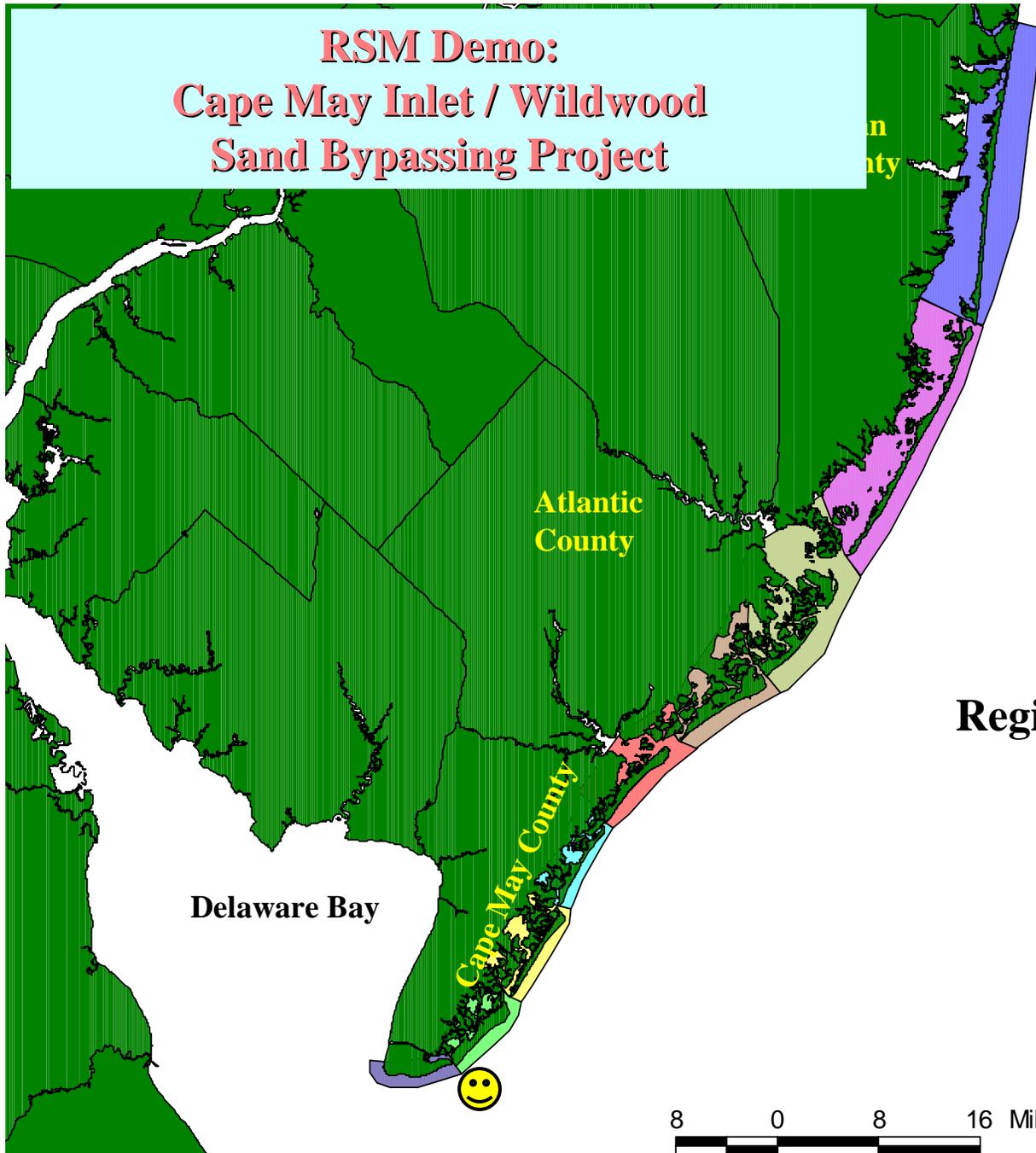


New Jersey Regional Sediment Management



**RSM Demo:
Cape May Inlet / Wildwood
Sand Bypassing Project**



Atlantic Ocean

Delaware Bay

Atlantic
County

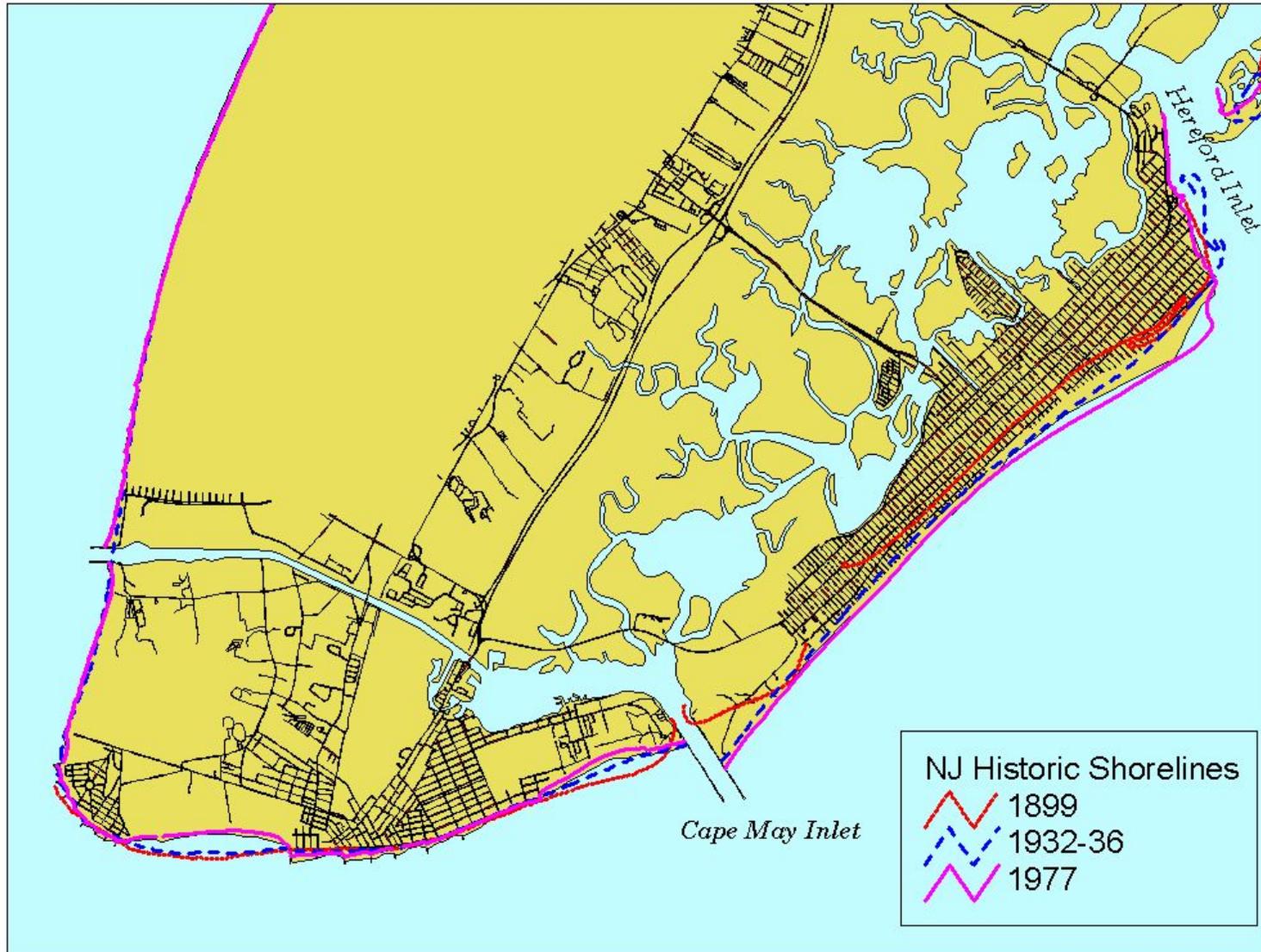
Cape May
County

**Regional Sediment Management
Analysis Segments**

- Island Beach
- Long Beach Island
- Brigantine Island
- Absecon Island
- Ocean City
- Ludlam Island
- Seven Mile Island
- The Wildwoods
- Cape May



Cape May – Wildwoods Historical Shorelines

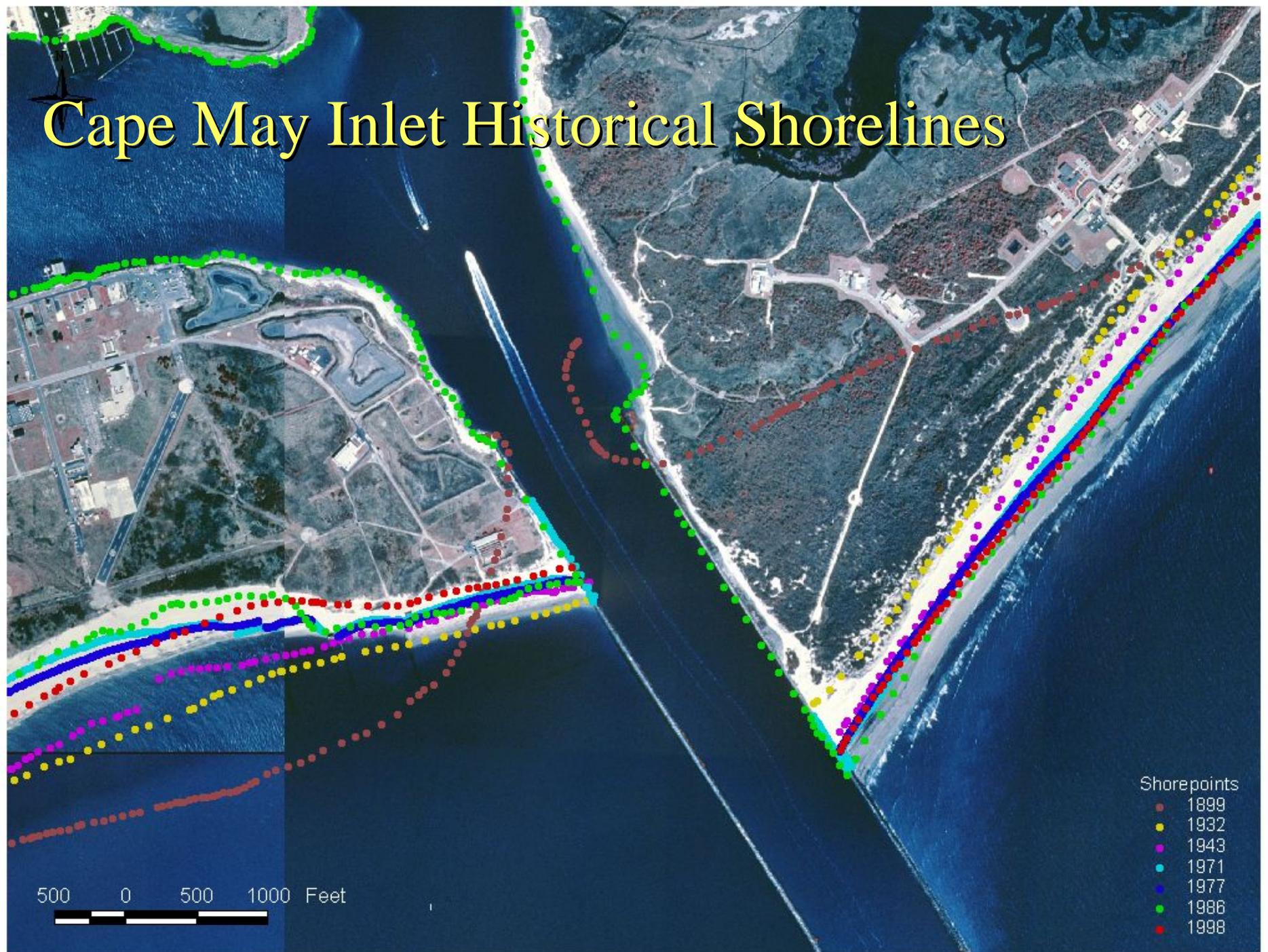


1933



Cape May Meadows Shoreline Change 1933 - 1995

Cape May Inlet Historical Shorelines



Cape May Inlet - Looking West



Cape May Inlet – Looking Northeast



Cape May Inlet and Vicinity



RSM Demo Cape May Inlet Sand Bypassing

BENEFITS

- **Cost Effective Nourishment for Cape May City/Coast Guard**
- **Identify Alternative Borrow Source to Offshore**
 - Extends usage of finite offshore resources
 - Minimizes Environmental Impacts to offshore sites
- **Reduce Excess Sediment at Wildwood (Clogged Outfalls, Safety, Ponding)**
- **Reduce Potential Shortfall of Present Borrow Site**
- **Obtains multiple uses of sediment already in littoral system**
- **Develops inter-community and inter-agency working group for sediment management issues**

RSM Demo Cape May Inlet Sand Bypassing

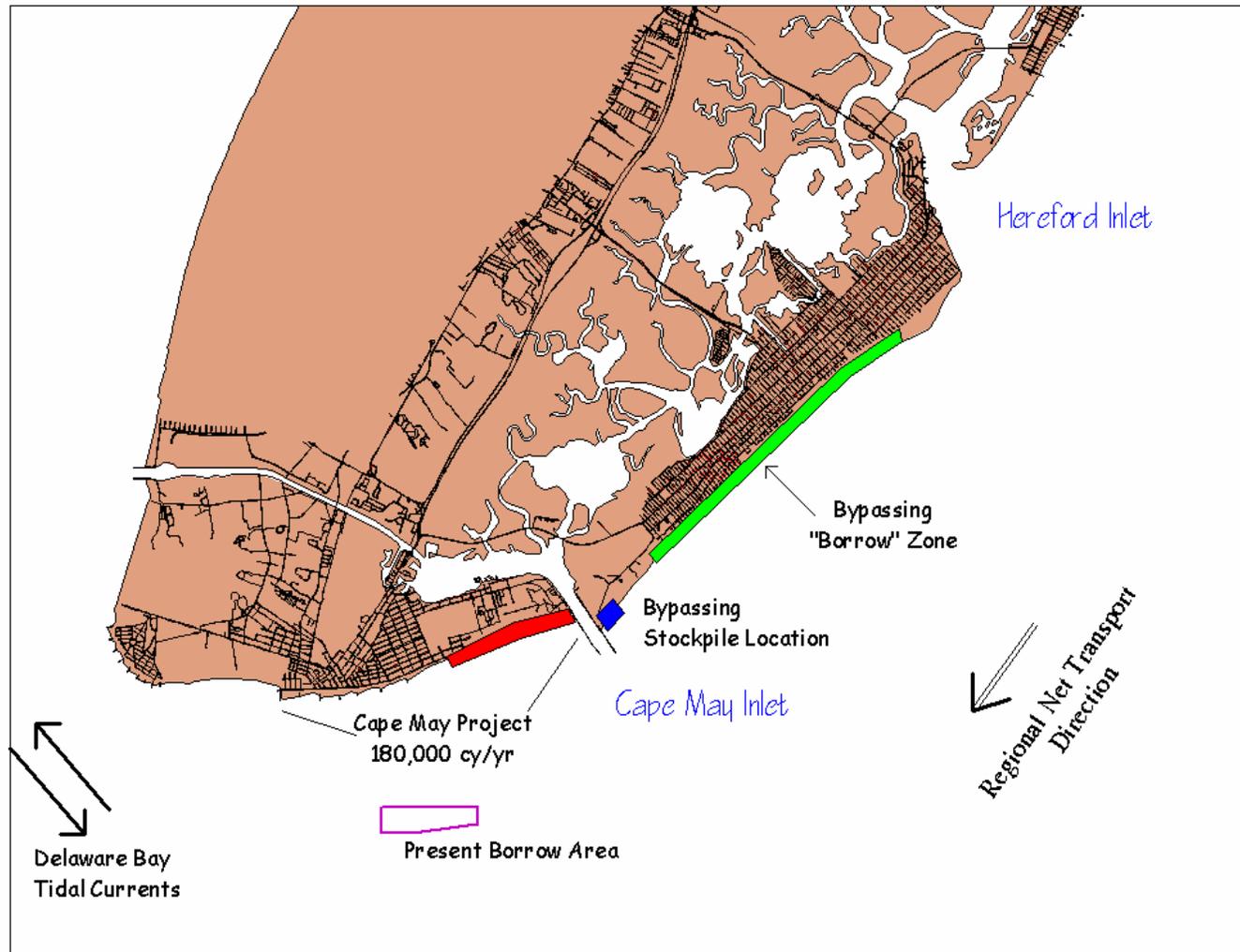
Benefits cont....

- Provide model for other communities for developing sediment management plans
- Provide sample procedures for other communities for equipment needs and methods of purchase
- Provide framework for inter-community loan of sediment moving equipment

AUTHORITIES

Existing Authorized Beach Erosion Control Project/Projects
NJDEP and Municipalities Interested – New Initiatives/ Partnerships

Proposed RSM Alternative – Cape May Inlet Sand Bypassing



Cape May Inlet Sand Bypassing

Potential Options

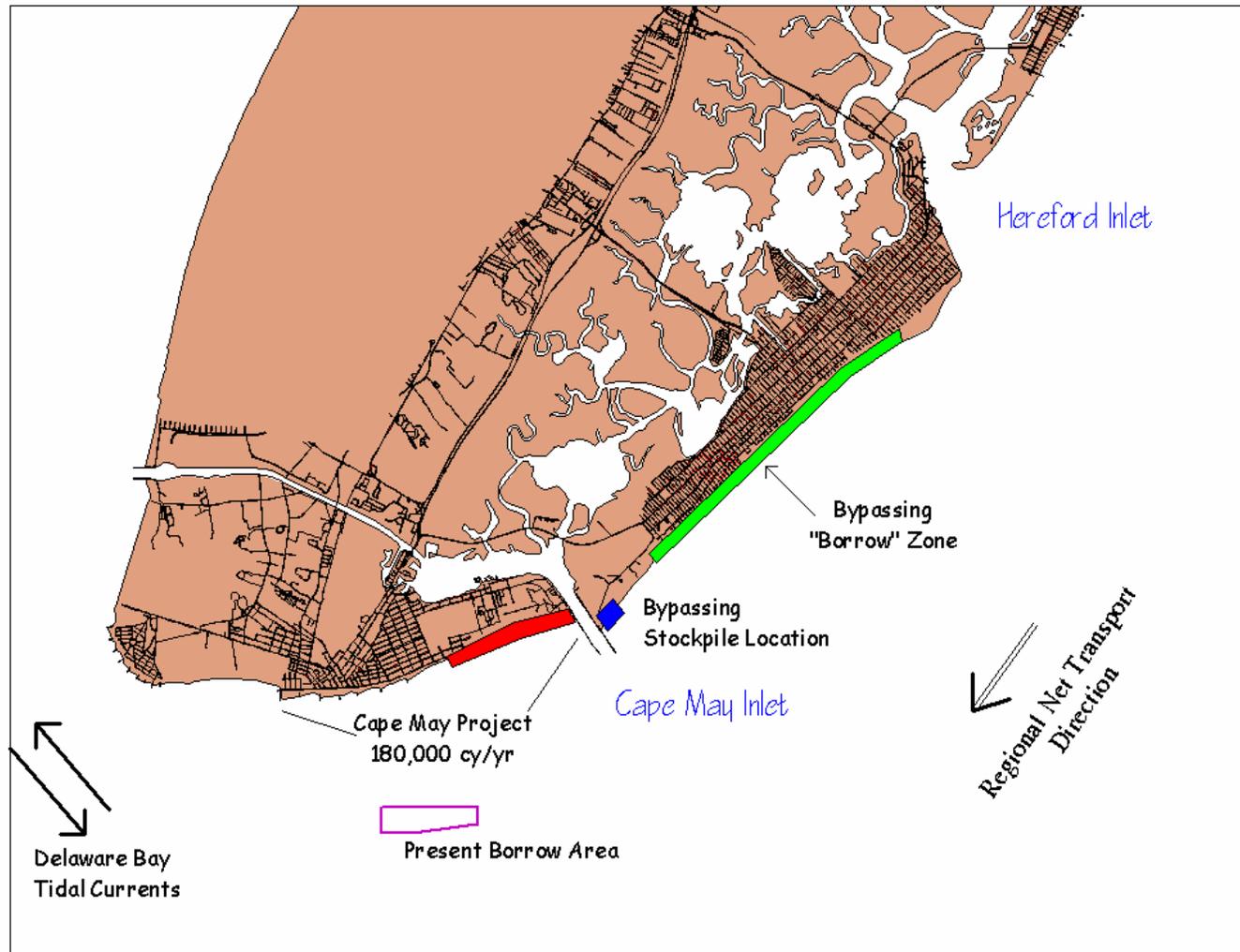
1. Fixed or Semi-Fixed sand bypassing Plant on CG property NE. of Inlet. More-or-less continuous (low) level of sand bypassing across Cape May Inlet
2. Mechanical removal of sand, presumably by mobile “pan scrapers,” along the beaches of Wildwood and Wildwood Crest, stockpiling of sand at the east Cape May Inlet jetty. #1 to move sand across Cape May Inlet

Cape May Inlet Sand Bypassing

Potential Options

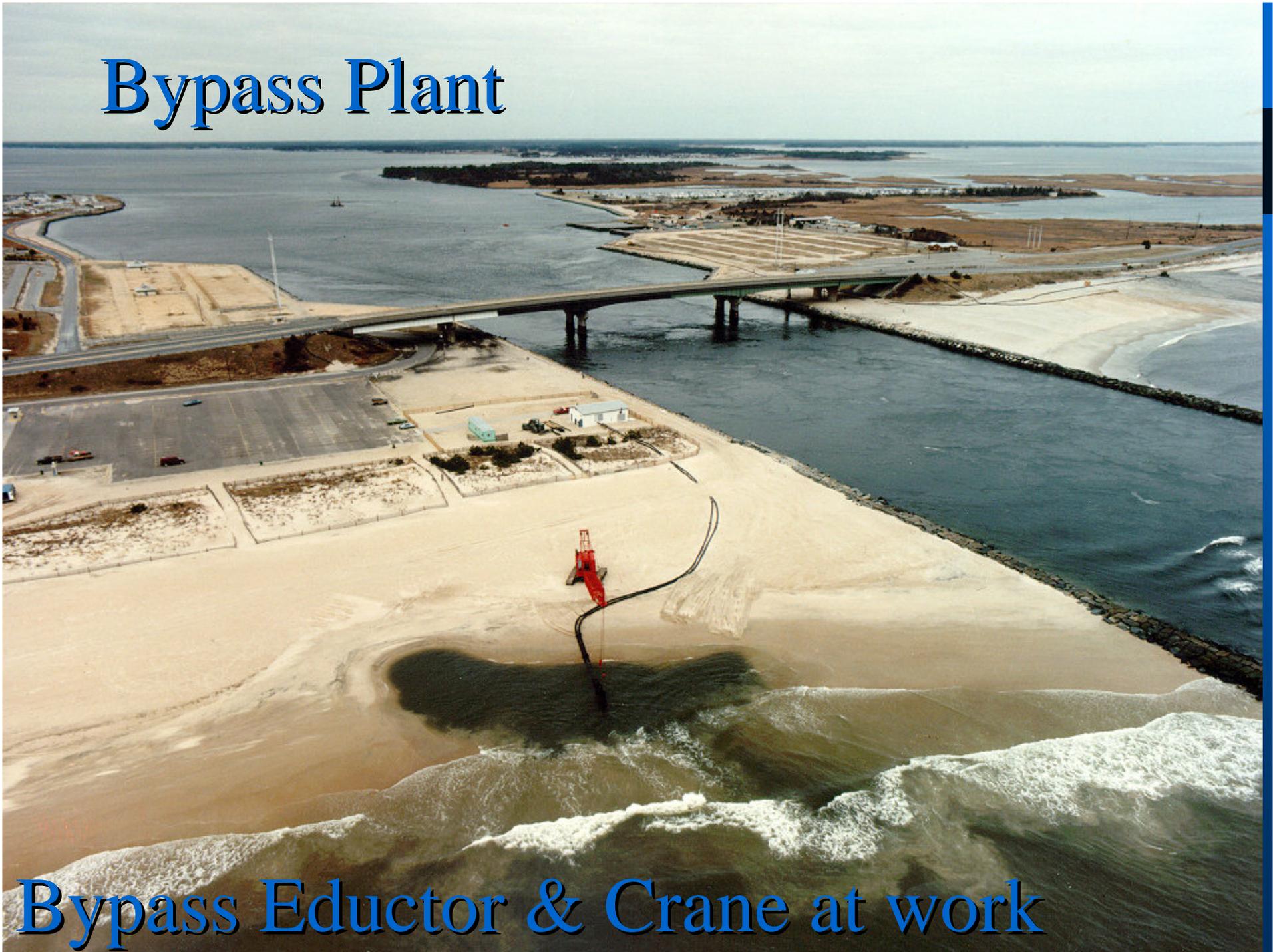
3. Permanent installation of infrastructure necessary for hydraulic transport of sediment from the updrift beaches to the vicinity of the east jetty at Cape May Inlet – “Buried Pipes”
4. Periodic (i.e., once per year, or less frequently) dredging from the east jetty fillet by means of a conventional floating hydraulic pipeline dredge .

Proposed RSM Alternative – Cape May Inlet Sand Bypassing



Bypass Plant

Bypass Educator & Crane at work



Wildwood, NJ. October 2001



Clogged Outfalls – Wildwood, NJ



Wildwood, NJ
April 2002

Approx. MHW

500 ft

"Pier"

~1/4 mile

Outfalls

Boardwalk



RSM Demo Project – Direct Borrow from Wildwood Beaches for Cape May Project

BENEFITS

- Provide High Quality Beach Sand as Alternative to Depleted Offshore Borrow Areas
- Ample Quantity (Enough for 10+ Nourishment Cycles)
- Reduce Problems of Excess Sand at Wildwood

AUTHORITIES

- Existing Authorized Beach Erosion Control Project (Cape May)
- NJDEP and Municipalities Interested

IMPACT

- Management of Sand Resources on a Regional Scale would Benefit both Cape May and Wildwood Communities
- Requires Non-Standard Dredging Operation to Mine Sand from the Beach

RSM Demo Project –Cape May Region

Future Plans

- Continue Environmental and Resource Agency Coordination
- Coordinate with Dredging Companies to Develop improved Methods of Dredging from Beaches
- Determine Optimal Borrow Configuration based on Coastal Processes
- Coordinate Proposed Borrow Configuration with State and Local Municipalities
- Plan for Implementation in an upcoming Cape May Nourishment Cycle and or future Hereford to Cape May Project.