PAUL S. SARBANES ECOSYSTEM RESTORATION PROJECT AT POPLAR ISLAND

1

Port of Baltimore:
A Diverse and Competitive Port

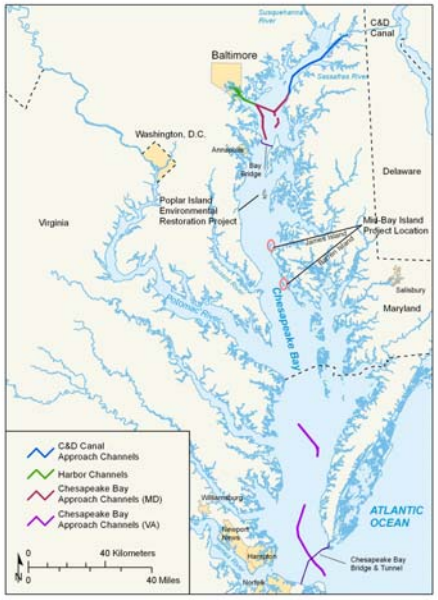
- *Ranked 1st nationally in autos, forest products, and roll-on/roll-off, gypsum, and sugar in 2011*
- *Ranked 2nd in coal imported salt, and aluminum*
- *Ranked 4th in foreign cargo tonnage on the East Coast in 2011*
- 37.8M metric tons ($51.4B) of cargo in 2010
- Port customers are in the Midwest, Northeast, and Mid-Atlantic regions
- Port has created 14,360 direct jobs and 108,000 jobs linked to port activities
- Responsible for $3B in personal wages and $300M in state and local tax revenues

2

Four New Super Post-Panamax Cranes

Dredging is a Critical Component of a Safe, Efficient, and Competitive Port

5



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Poplar Island Goals

- Restore remote island habitat in the mid-Chesapeake Bay using clean dredged material from the Chesapeake Bay approach channels to the Port of Baltimore
- Optimize size capacity for clean dredged material while meeting the environmental restoration purpose of the project
- Protect the environment around the restoration site

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Project Delivery Team

- Maryland Port Administration (MPA)
- US Environmental Protection Agency (USEPA), Region 3
- US Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NMFS)
- National Oceanic and Atmospheric Administration (NOAA)
- Maryland Department of Natural Resources (MDNR)
- Maryland Department of the Environment (MDE)
- Maryland Geological Survey (MGS)
- Maryland Environmental Service (MES)
- University of Maryland Center for Environmental Science (UMCES)

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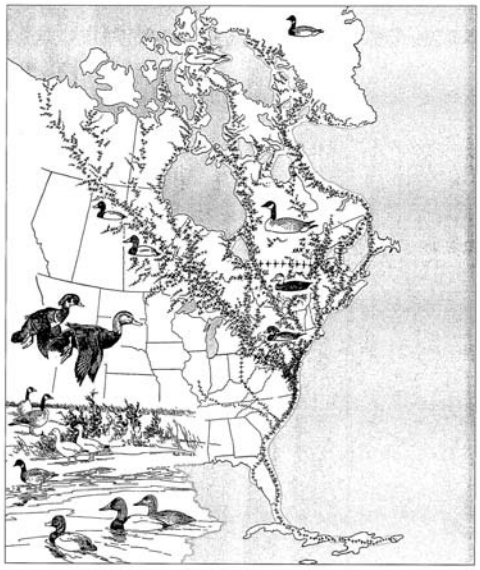
U.S. Fish & Wildlife Service

Atlantic Flyway



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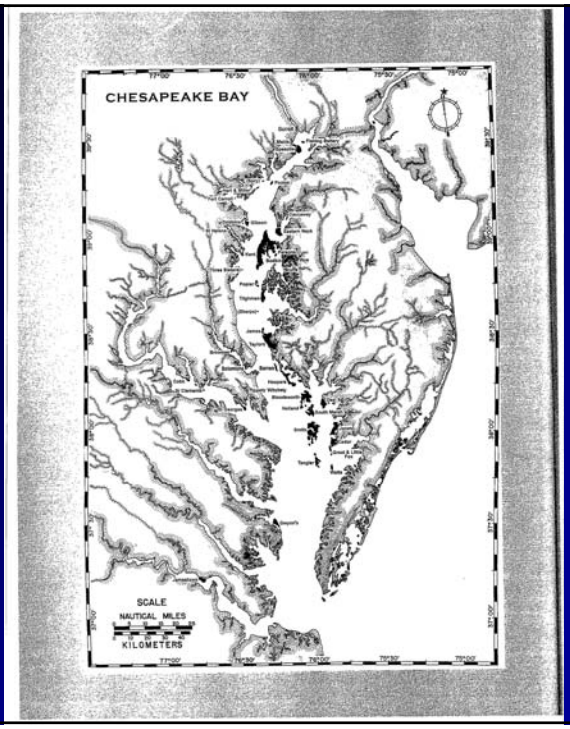
CHESAPEAKE BAY



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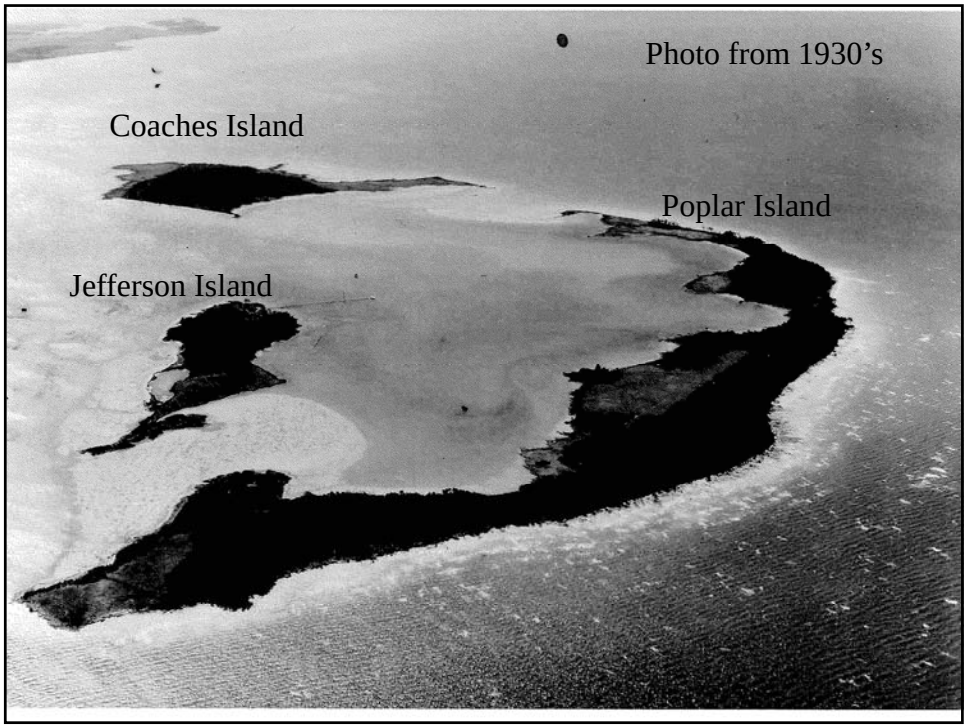
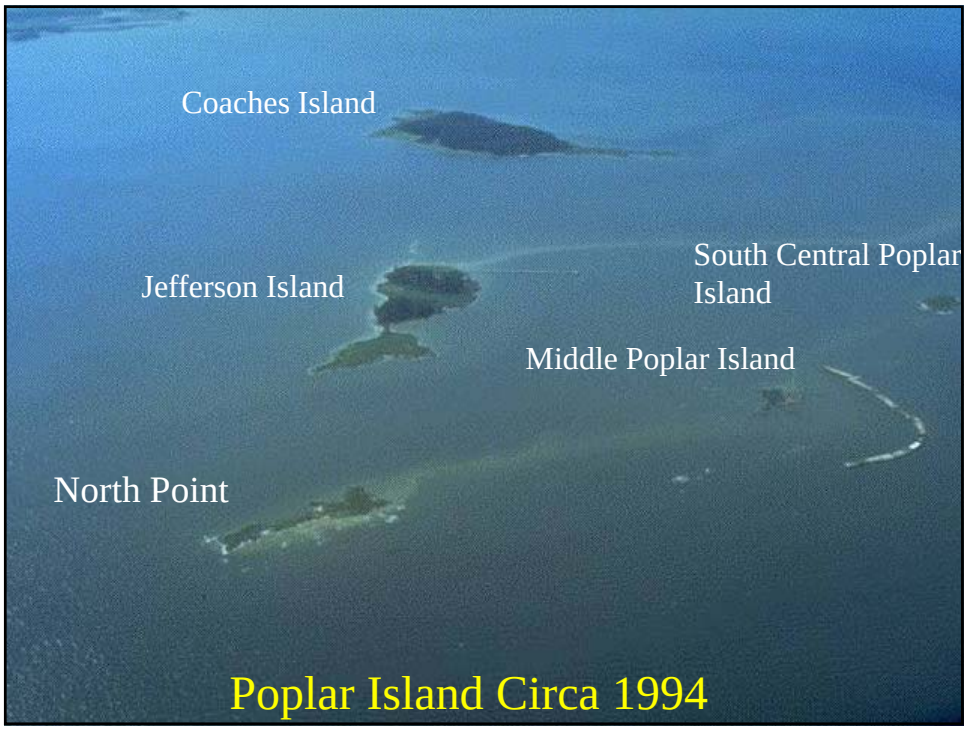


Photo from 1930's
Coaches Island
Poplar Island
Jefferson Island


Coaches Island
South Central Poplar Island
Jefferson Island
Middle Poplar Island
North Point
Poplar Island Circa 1994

Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island

- Size: 1,715 acres (695 hectares)
- Capacity: 68 mcy (52 million m3)
- Cost: $1.2 billion
- Uplands: 840 acres (340 hectares)
- Tidal marsh: 737 acres (298 hectares)
- 80% low marsh
  20% high marsh
- Open Water Embayment: 138 acres (56 hectares)

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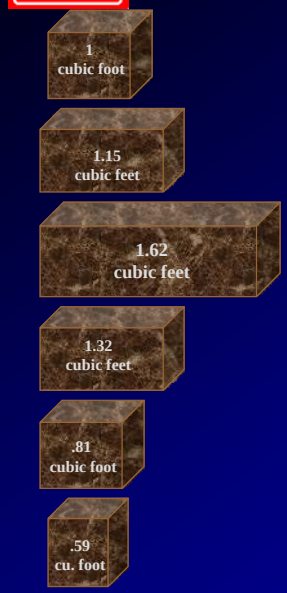
Importance of Proper Dewatering



Volume In-Situ Before Dredging
(85% Water)

Volume After Dredging (Clamshell)
(87% Water)

Volume At Deposition in Placement Site
(91% Water)

Volume In Site 2 Months After Placement
(Decanting, Drying, Consolidation)
(89% Water)

Volume After 12 Months in Site
(Exceeds Length of Typical Drying Season)
(82% Water)

Volume After 2 to 3 Years and
1 to 2 Additional Placement Lifts
(75% Water)

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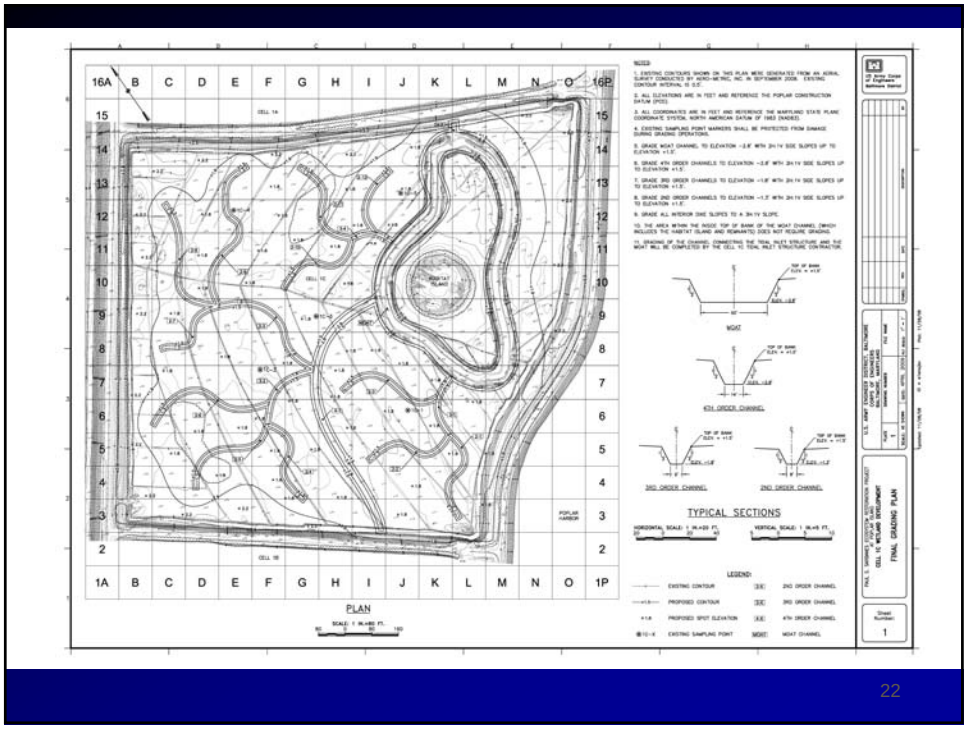
CATERPILLAR


PLAN
TYPICAL SECTIONS
LEGEND:
FINAL GRADING PLAN

Wetland Cell Development Timeline

Dredge material inflow (years 1-4)

↓

Crust management (years 1-4)

↓

Channel excavation (years 4-5)

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Marsh plain grading (year 5)

↓

Tidal inlet construction (year 5)

↓

Planting (year 6)

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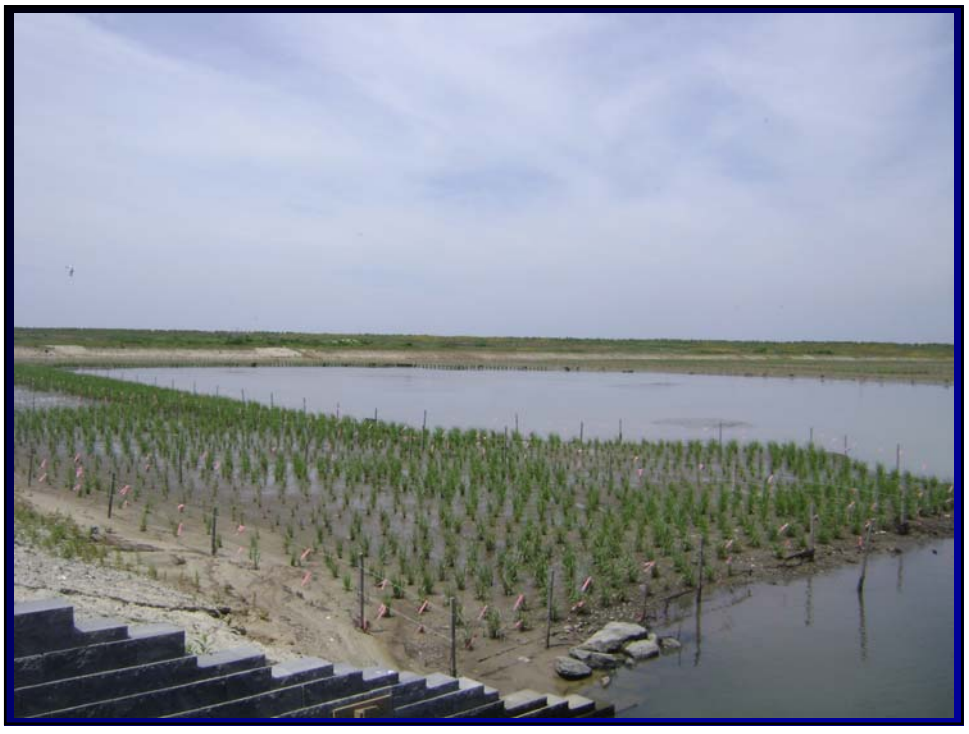


Least Tern

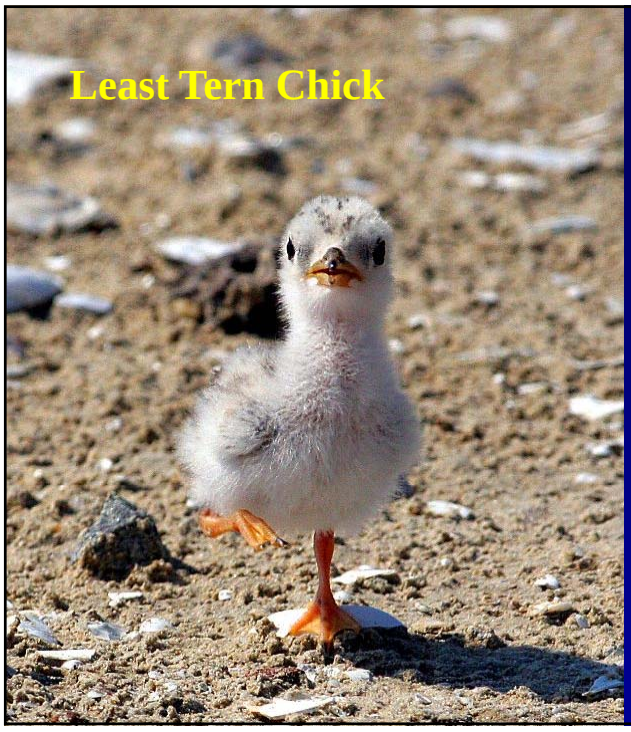
American Oyster Catcher
Black Necked Stilt
red Owl
Black Skimmer
American Avocets

Osprey

Snowy Owl

River Otter
8/10/06 10:56 PM
Cuddeback

Diamondback Terrapin



Questions?

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