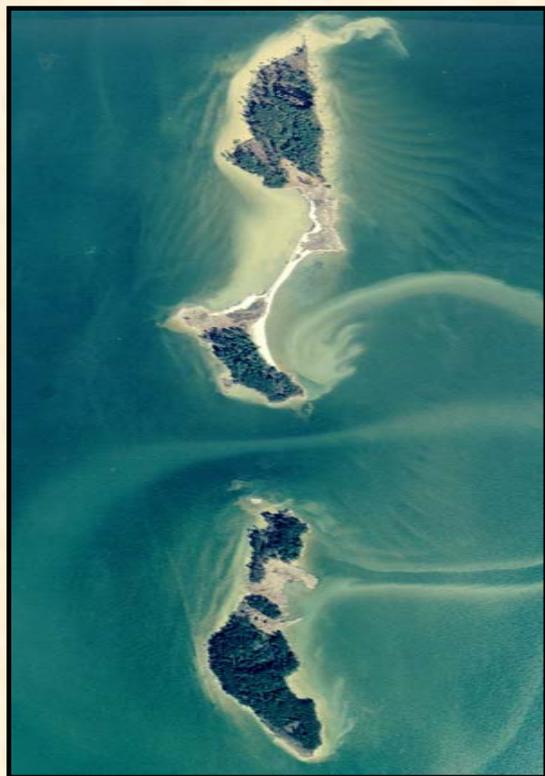


Mid-Chesapeake Bay Island Ecosystem Restoration

Integrated Feasibility Report and Environmental Impact Statement



James Island

**Col. Peter W. Mueller
Commander
Baltimore District**

**Civil Works Review Board
July 17, 2008**



Barren Island



Purpose of the CWRB Briefing



Photo: Poplar Island



Photo: Poplar Island

- Provide the CWRB an overview of the Mid-Chesapeake Bay Island Ecosystem Restoration Study
- Obtain CWRB approval to proceed with release of the Final Mid-Chesapeake Bay Island Feasibility Study (FS)/Environmental Impact Statement (EIS)
- Answer questions and address comments
- Discuss the next steps in the approval process to get to a Chief's Report



Outline

- Bottom Line Up Front
- Background and Need
- Regional Sediment Management
- Goals and Objectives
- Planning Constraints and Alternatives
- Impacts & Benefits
- Compliance, Peer Review, Costs
- Civil Works Policy/Lessons Learned
- Summary and Recommendation



Photo: Poplar Island



Bottom Line Up Front

- Ecosystem restoration within the Chesapeake Bay is a national priority.
- Congressional authorization provides for water resource improvements in the interest of navigation and environmental restoration.
- The system of Federal channels serving the Port of Baltimore is vital to the economy of the region and the nation.
- The 2005 Federal Dredged Material Management Plan identified:
 - 3.2 MCY/yr need for placement capacity, shortfall in near future
 - Significant constraints for disposal options
 - Numerous recommended alternatives
- Beneficial use of dredged material for restoration of critical remote island habitat produces a synergistic project opportunity.
- The project results from a systems approach, builds on past success, optimizes costs and environmental outputs, and utilizes economies of scale to realize long-term benefits to both navigation and the environment.



Chesapeake Bay Watershed

- The largest estuary in the United States, with a watershed of over 64,000 square miles, and a shoreline of over 11,600 miles
- Chesapeake Bay Program sets goals and objectives for protection and restoration
- Home to more than 15 million people and 3,600 species
- A major link in the Atlantic flyway
- Supports more than 350 species of finfish and one of the largest naturally reproducing populations of Striped Bass
- Produces about \$200 million dollars in commercial harvesting of fish and shellfish annually



Study Authority

Resolution of the Senate Committee on Environment and Public Works dated 5 June 1997 :

“That the Secretary of the Army is requested to review the report of the Chief of Engineers on the Chesapeake Bay, Maryland and Virginia....to conducting watershed management studies, in cooperation with other Federal agencies, the State of Maryland and the State of Delaware, their political subdivisions and agencies and instrumentalities thereof, of water resources improvements in the interest of navigation, flood control, hurricane protection, erosion control, environmental restoration, wetlands protection, and other allied purposes in watersheds of the Eastern Shore, Maryland and Delaware.”



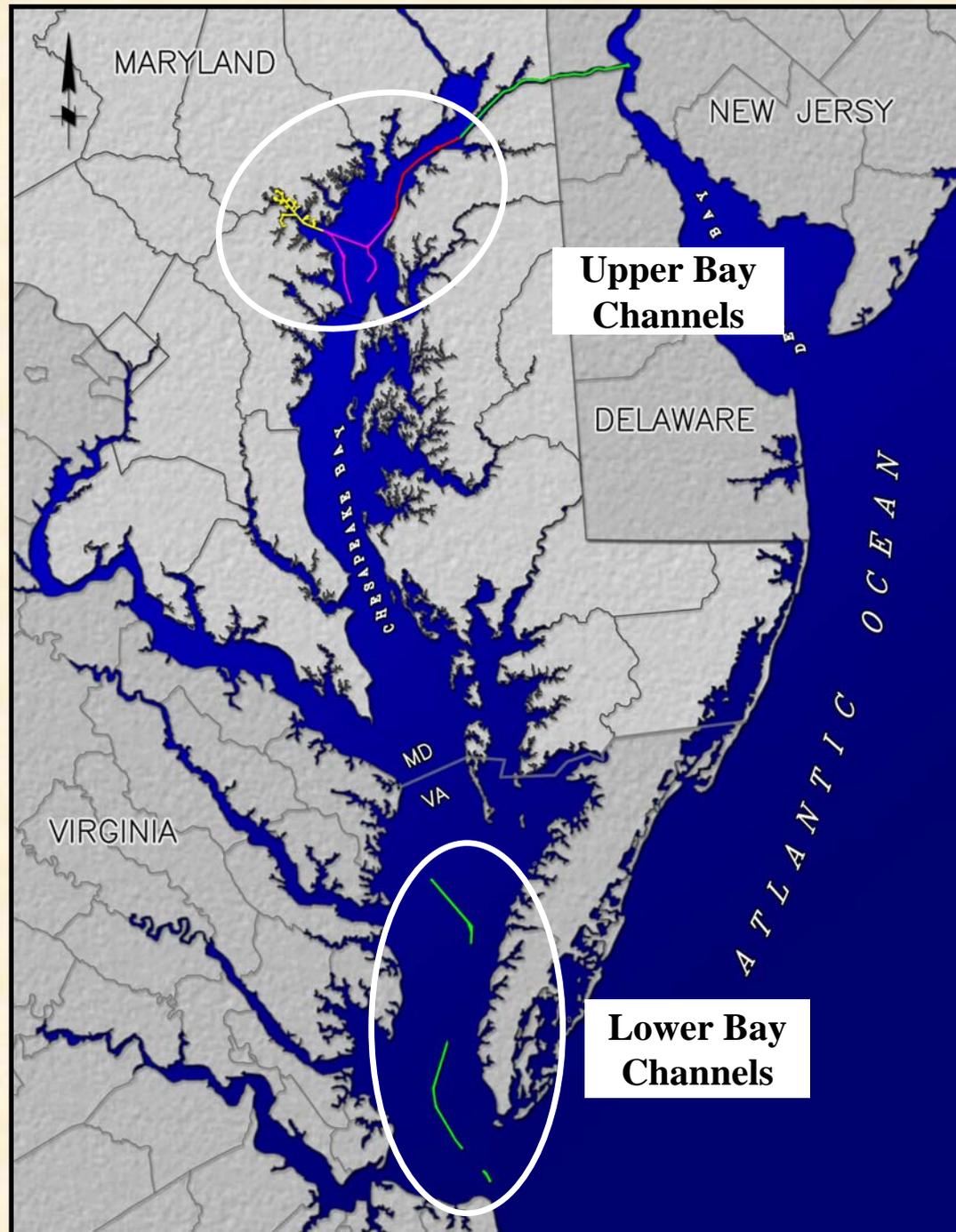
Key Team Participants

- Maryland Port Administration (MPA) **(Sponsor)**
- 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)
- Chesapeake Bay Program



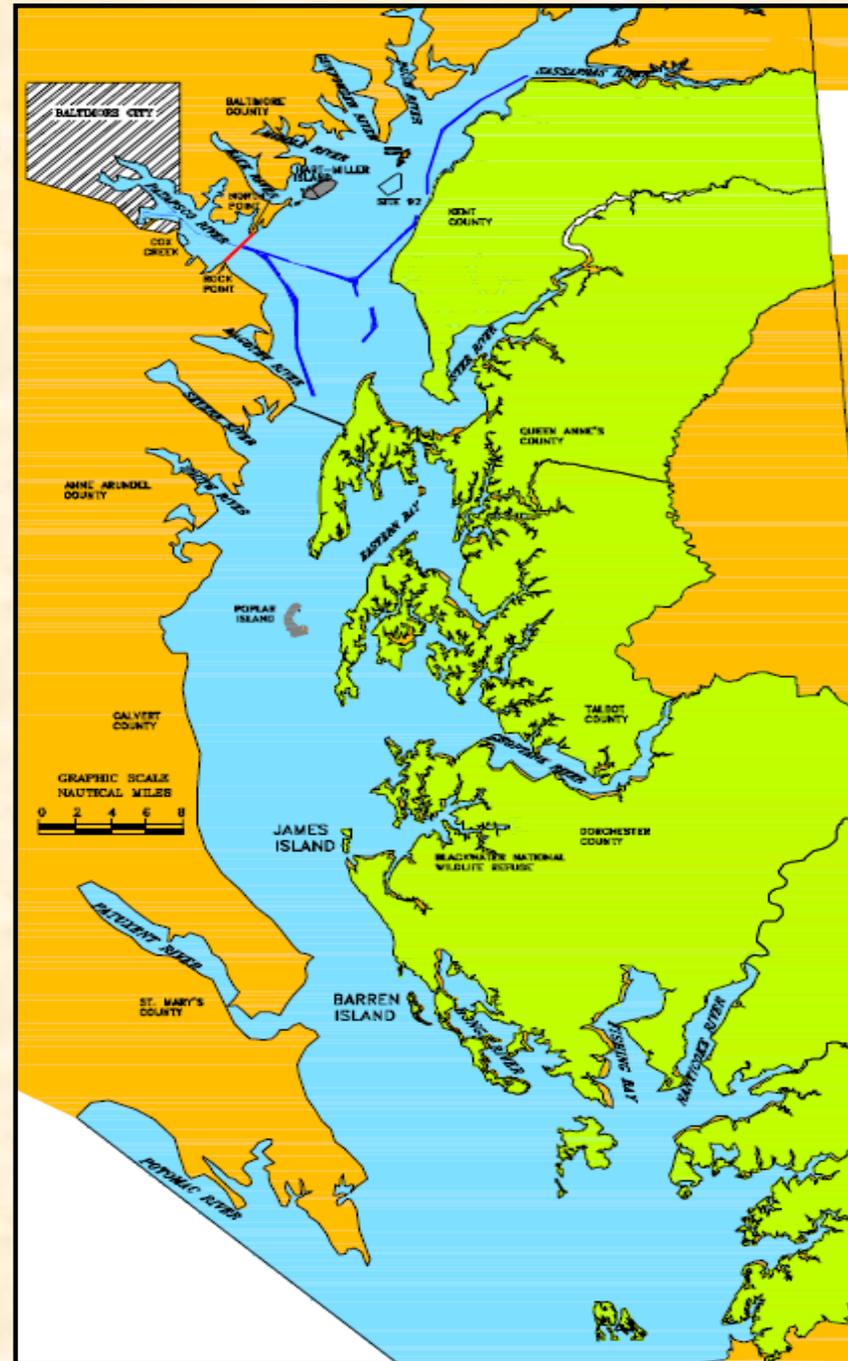
Navigation Channels to the Port of Baltimore

- Approximately 130 miles of dredged Federal navigation channels serve the Port of Baltimore
- The entire Chesapeake Bay channel system requires annual dredging of between 4 to 5 million cubic yards of sediment
- Dredged material management plans developed at the State and Federal level address these needs



Mid-Bay Island Study Area

- Mid-Bay Island Study focused on meeting the dredged material capacity shortfall for the purpose of environmental restoration using material from the Upper Bay Approach Channels
- Approximately 3.2 million cubic yards of dredged material each year comes from the Upper Bay Approach Channels
- Currently, that dredged material is placed at either Pooles Island or Poplar Island

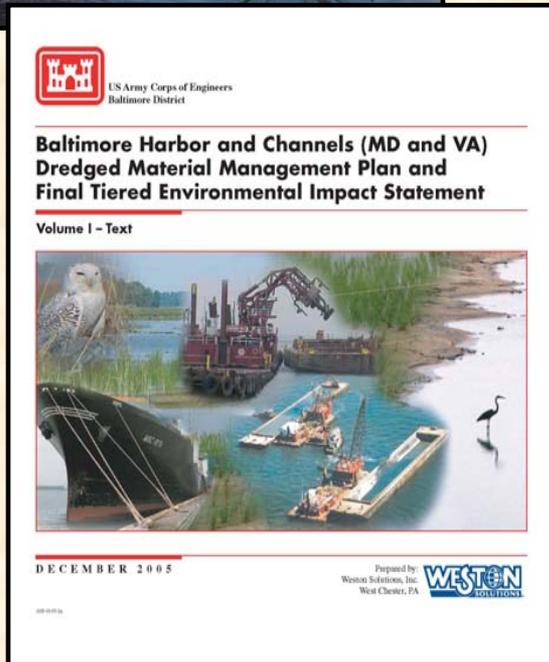


Regional Planning Constraints

- Pooles Island overboard placement to close in 2010 (Maryland Law)
- No new placement facilities within 5 miles radius of Hart-Miller/Pleasure Island chain (Maryland Law)
- No expansion of Hart-Miller Island. Facility to close in 2009 (Maryland Law)
- No island creation, only restoration (State and agency opposition)
- No islands in northern Bay (above Bay Bridge) (Significant public and agency opposition)
- No overboard placement (Maryland Law)



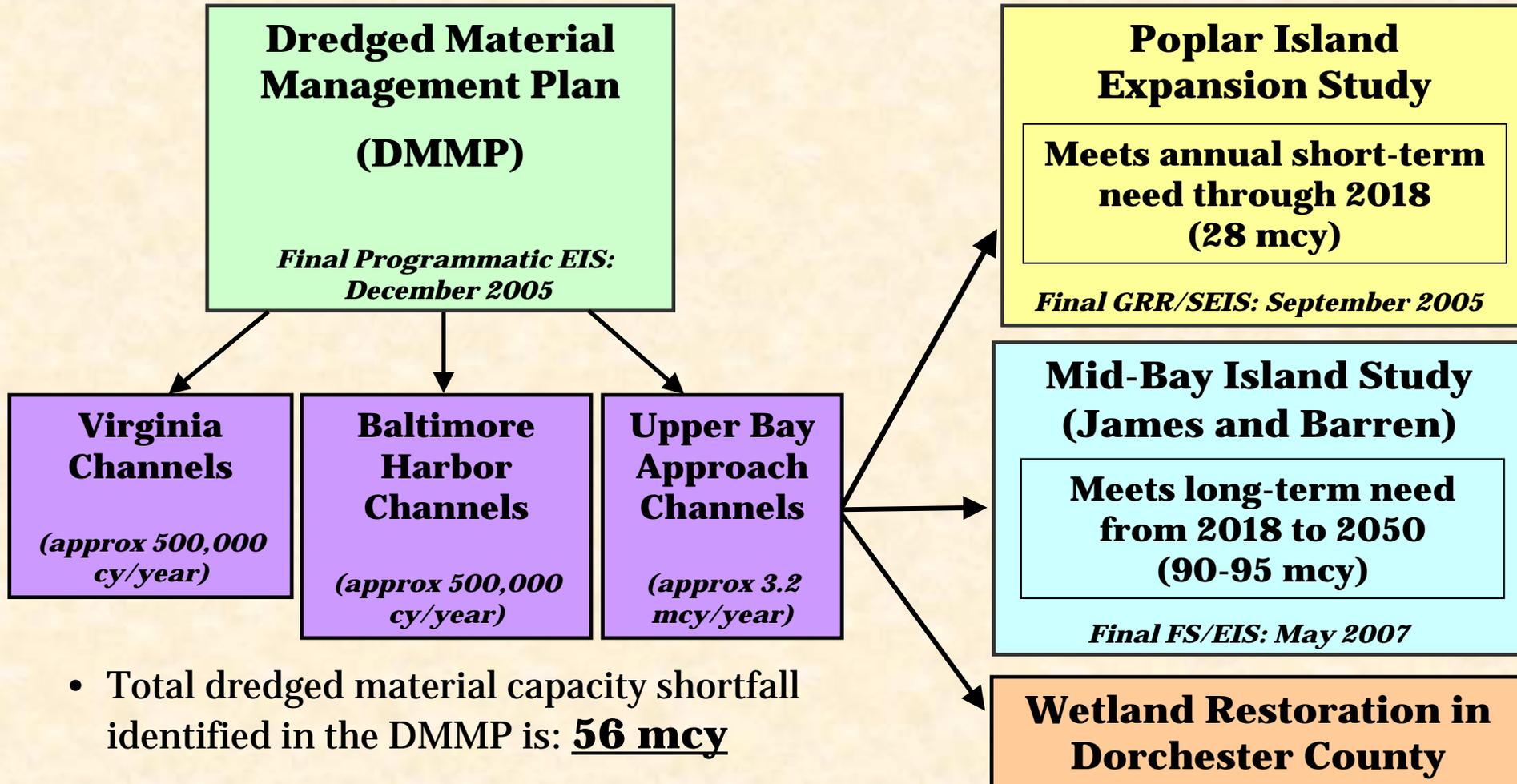
Need for the Project



- Eastern Shore, Maryland and Delaware Section 905(b) Study concluded there was a Federal interest in a variety of projects, including habitat restoration; wetland creation and protection; and shoreline erosion control
- Placement capacity for the Upper Chesapeake Bay approach channels will become limited beginning in 2010
- Recommendation both the *Federal Dredged Material Management Plan (DMMP) and Tiered EIS* and the State of Maryland DMMP
- Strong State agency opposition restricts island construction where none previously existed, restricting potential project locations



Regional Sediment Management Framework



- Total dredged material capacity shortfall identified in the DMMP is: **56 mcy**
- Once Pooles Island closes, an additional 1.2 mcy of material will go to Poplar Island



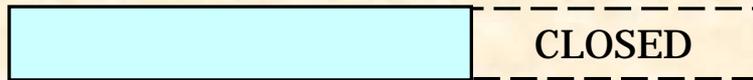
Regional Sediment Management

Sites Existing and Authorized

Calendar Years

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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POOLES ISLAND



POPLAR ISLAND



POPLAR ISLAND EXPANSION



Goals of the Mid-Bay Island FS/EIS

Goals

- Restore and protect ecologically important remote island habitat through the beneficial use of dredged material
- Meet the dredged material placement need



Photos: Poplar Island



Objectives of the Mid-Bay Island FS/EIS



- Restore and protect wetland, aquatic, and terrestrial island habitat for fish, reptiles, amphibians, birds, and mammals
- Protect existing island ecosystems, including sheltered embayments, to prevent further loss of island and aquatic habitat
- Contribute to the Chesapeake 2000 Keystone Commitments by increasing wetland acreage in the Chesapeake Bay watershed, and promoting conditions to establish and enhance seagrasses
- Decrease local erosion and water column turbidity
- Provide dredged material placement capacity (3.2 mcy/yr)



Chesapeake 2000 Keystone Commitments

- **The Interagency Chesapeake Bay Program has identified 10 Keystone Commitments, organized into 5 strategic pillars:**



- Restoring Healthy Waters
- Restoring Healthy Habitats
- Ecosystem- Based Fisheries Management
- Maintaining Healthy Watersheds
- Fostering Chesapeake Stewardship



The Mid-Bay project directly contributes to 3 of the 5 pillars:

- Restoring healthy waters – regional sediment management
- Restoring healthy habitats – wetland restoration and protection of sea grasses
- Fostering Chesapeake stewardship – educational and volunteer activities



Mid-Bay Island Planning Constraints



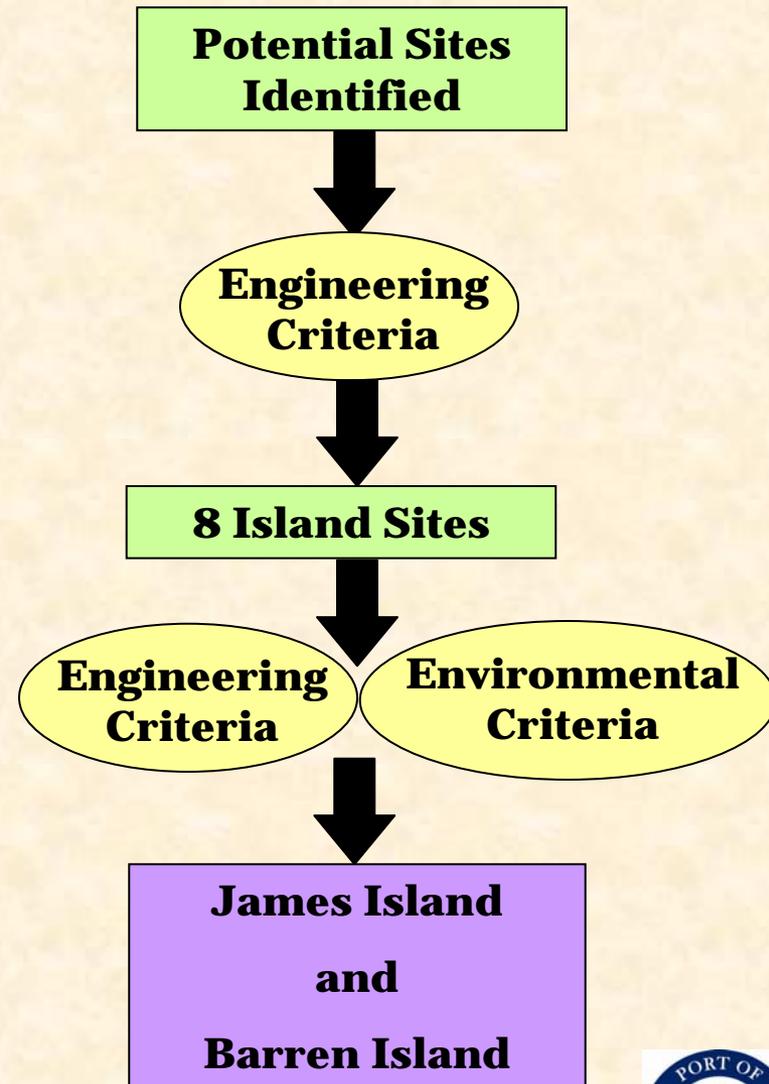
- Avoid construction of new islands; island restoration advocated by State and local resource agencies
- Minimize impacts to existing fisheries habitat (nursery and foraging)
- Minimize impacts to rare, threatened, and endangered species and their habitat
- Minimize impacts to existing commercial fisheries

- Minimize establishment of invasive species
- Avoid natural oyster bars and seagrass beds
- Locate suitable dike foundation conditions
- Identify quantity and quality of sand borrow material within the project footprint to minimize impacts to the Bay bottom



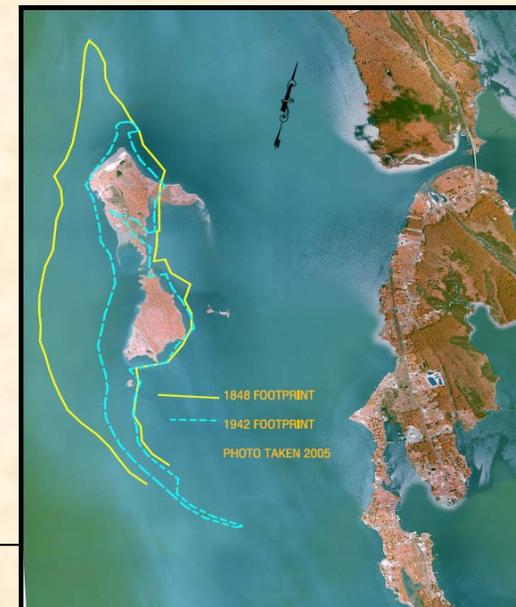
Plan Formulation - Island Site Selection

- 105 potential existing island sites initially screened using engineering feasibility criteria
- 8 Island Sites remained as potential locations
- 8 Sites evaluated according to 10 engineering criteria (i.e. capacity, water depth, amount of on-site sand borrow material, etc)
- 8 Sites evaluated using 52 environmental parameters based on process developed by the Bay Enhancement Working Group (BEWG) as part of the State of Maryland's DMMP process
- James and Barren Island rated highest in both engineering and environmental screening



No Action Alternative

- James and Barren Islands will continue to erode
 - James will be submerged by 2033 (currently 41 acres)
 - Barren will be submerged by 2076 (currently 173 acres)
- Remote nesting and forage habitat for birds will disappear
- Seagrasses and sensitive aquatic habitats leeward of the island will no longer be protected
- Shoreline erosion in Maryland's Dorchester County will continue
- Existing sites will be overloaded starting in 2018
- Assumes that Poplar Island will be expanded to provide additional habitat and dredged material capacity



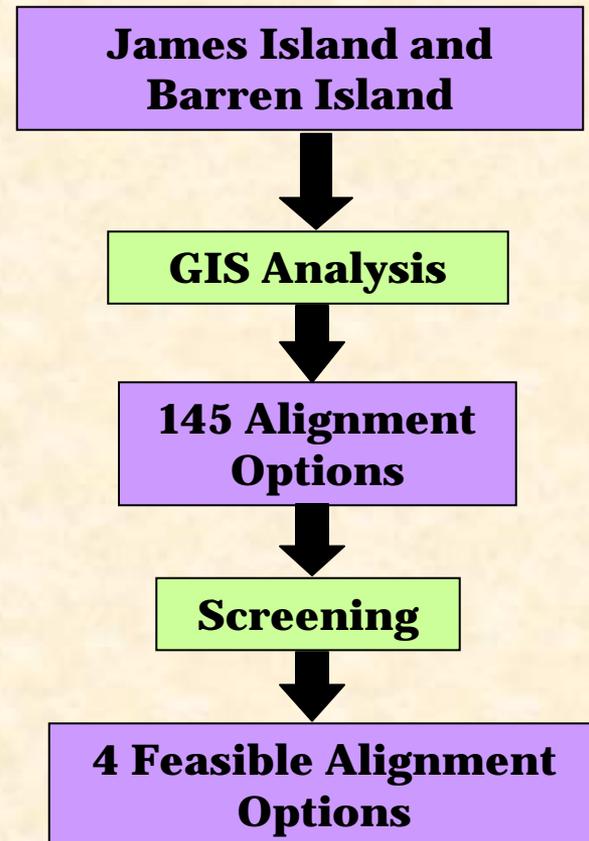
Determination of Feasible Alignments

- GIS analysis used to identify optimal alignment locations by mapping resources to be avoided (oyster bars, seagrass beds, navigation channels, etc)
- 145 Alignment Options Evaluated:
 - 4 Barren Island alignments
 - 5 James Island alignment, and
 - 20 combination alignments

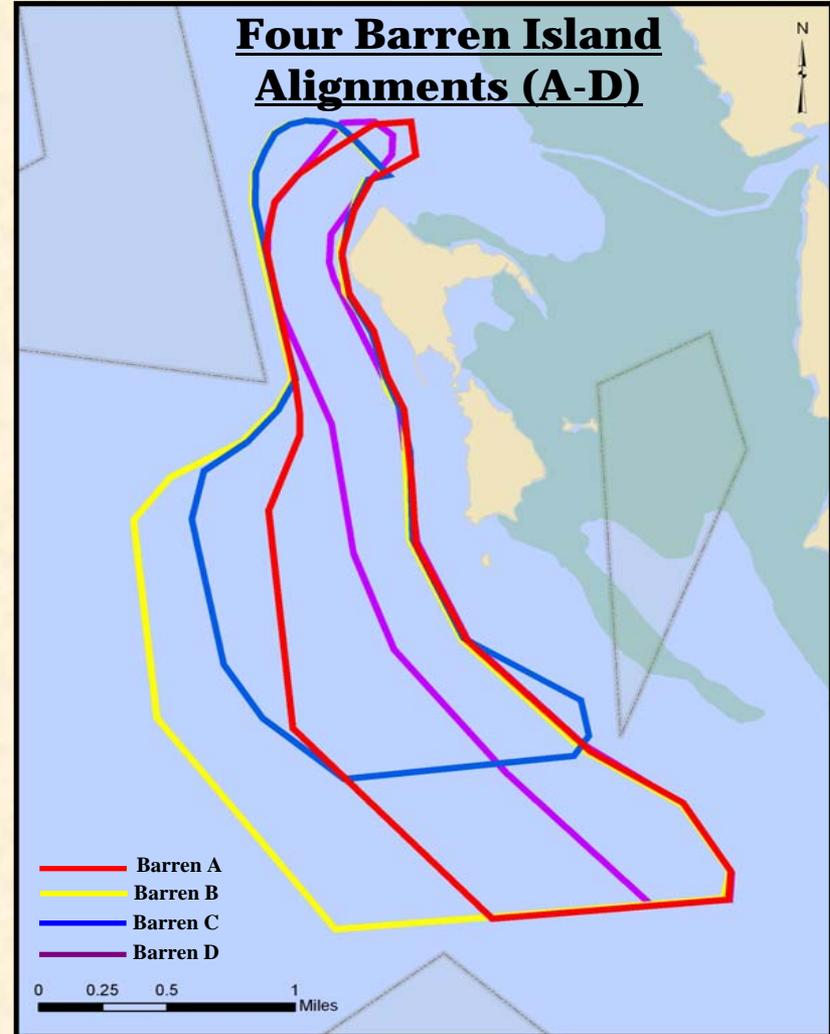
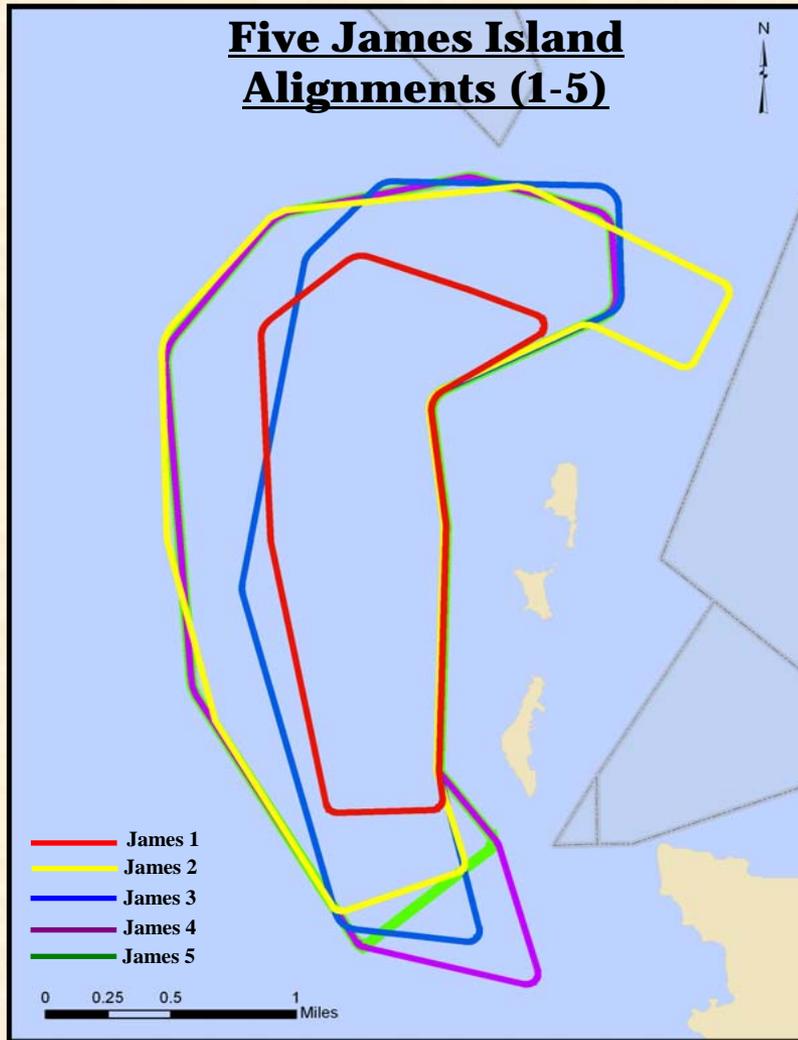
29 total alignment options

x

5 wetland / upland ratios
- Screened alignments based on preliminary environmental benefits, constructability, dredged material capacity, availability of sand borrow areas, agency input, preliminary costs

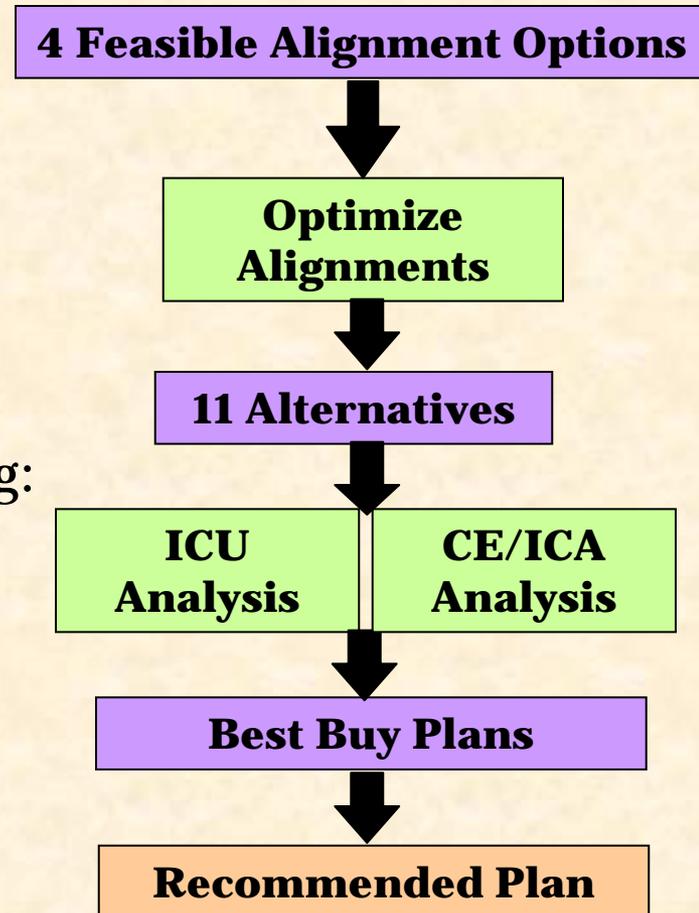


Alignments Evaluated



Selection of the Recommended Plan

- Plan formulation indicated that projects at both James and Barren Islands could be connected to maximize environmental benefits, placement capacity and cost
- Feasible alignments were optimized based on:
 - upland to wetland ratios
 - multiple dike heights
 - minimize footprint
- Alternative plans were compared using:
 - Island Community Units (ICUs)
 - Cost Effectiveness analysis (CE)
 - Incremental Cost Analysis (ICA)
 - Project objective evaluation
- Recommended plan was selected



Two Locations Linked Together

- By taking a systems approach, projects at two island sites could be linked to achieve regional watershed objectives



- James Island
 - Restore wetlands and uplands
 - Provide shoreline protection to Dorchester County
 - Protect the existing remote island habitats
 - Provide dredged material capacity to meet the long-term need identified in the DMMP

- Barren Island
 - Restore wetlands
 - Protects expansive seagrass beds located east of the island and promotes conditions to establish additional seagrass beds
 - Protect the existing remote island habitats



Environmental Benefits

Island Community Unit (ICU) method was developed to quantify environmental benefits of island restoration in the Chesapeake Bay region

- 1) Collaborate with local and regional experts to develop primary measures of restoration success
- 2) Identify the species that use remote island habitat in Chesapeake Bay
- 3) Identify the key habitat requirements
- 4) Assign weighting factors to each guild/community, depending on the extent that community would utilize remote island habitat
- 5) Calculate the ICU for each cell/habitat type in each year for each alternative
- 6) ICUs were used for the Cost Effectiveness (CE) / Incremental Cost Analysis (ICA)



Cost Effectiveness / Incremental Cost Analysis

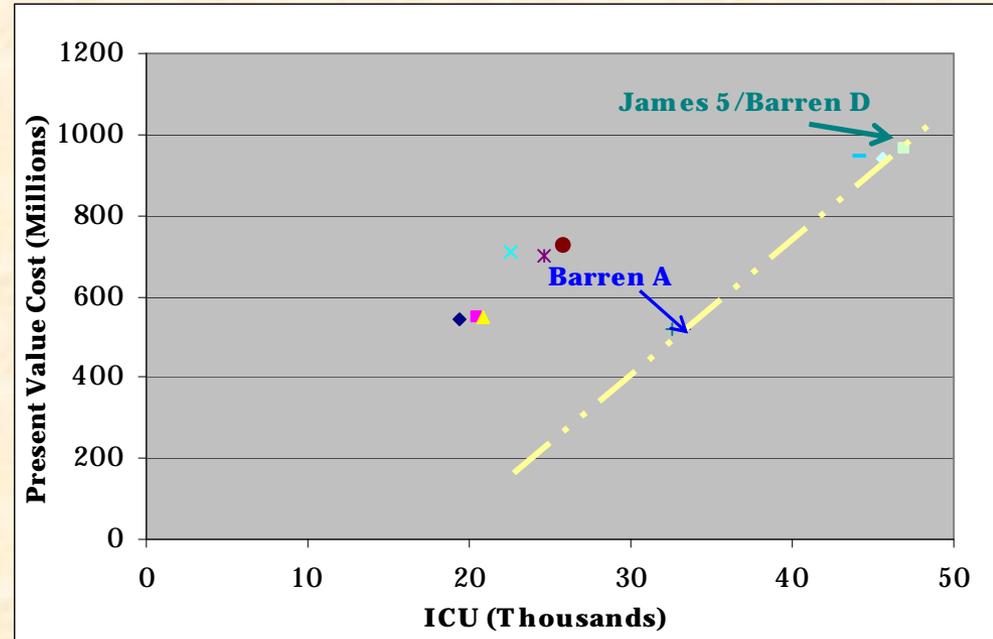
- 11 Feasible Options evaluated
 - 2 Barren Island only Alternatives
 - 6 James Island only Alternatives
 - 3 Alternatives combining projects at James and Barren Islands

- After incremental cost analysis, two Best Buy plans remained:

- Barren Island, Alignment A (1,354 acres)
- Combination of James Island Alignment 5 and Barren Island Alignment D (2,756 acres)

- Both Best Buy plans were unacceptable for different reasons:

- Barren Alignment A – environmental and socioeconomic impacts were too great
- James 5 / Barren D Alignment Combination – incremental cost per ICU was prohibitively high

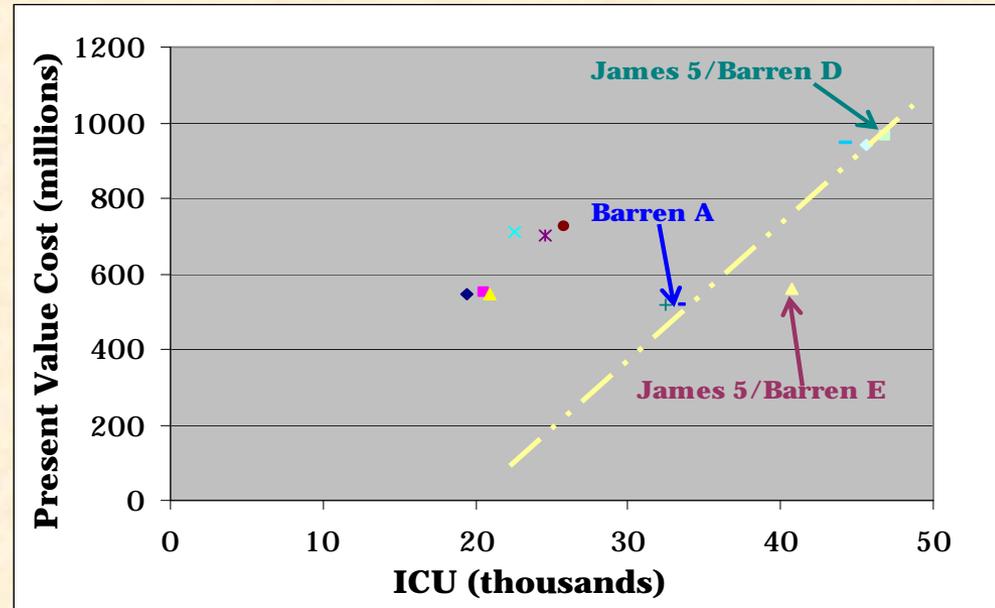


Development of the Recommended Plan

- James 5 / Barren E alignment (2,144 acres) avoided substantial impacts at Barren Island and the cost reduction was significant

James 5 / Barren E alignment:

1. Reduces project cost by decreasing amount of perimeter dike construction and haul distance for dredged material
2. Minimizes the project footprint, reducing impacts to Bay bottom habitats and commercial /recreational fishing areas
3. Did not significantly reduce dredged material capacity
4. Supported by resource agencies and the public

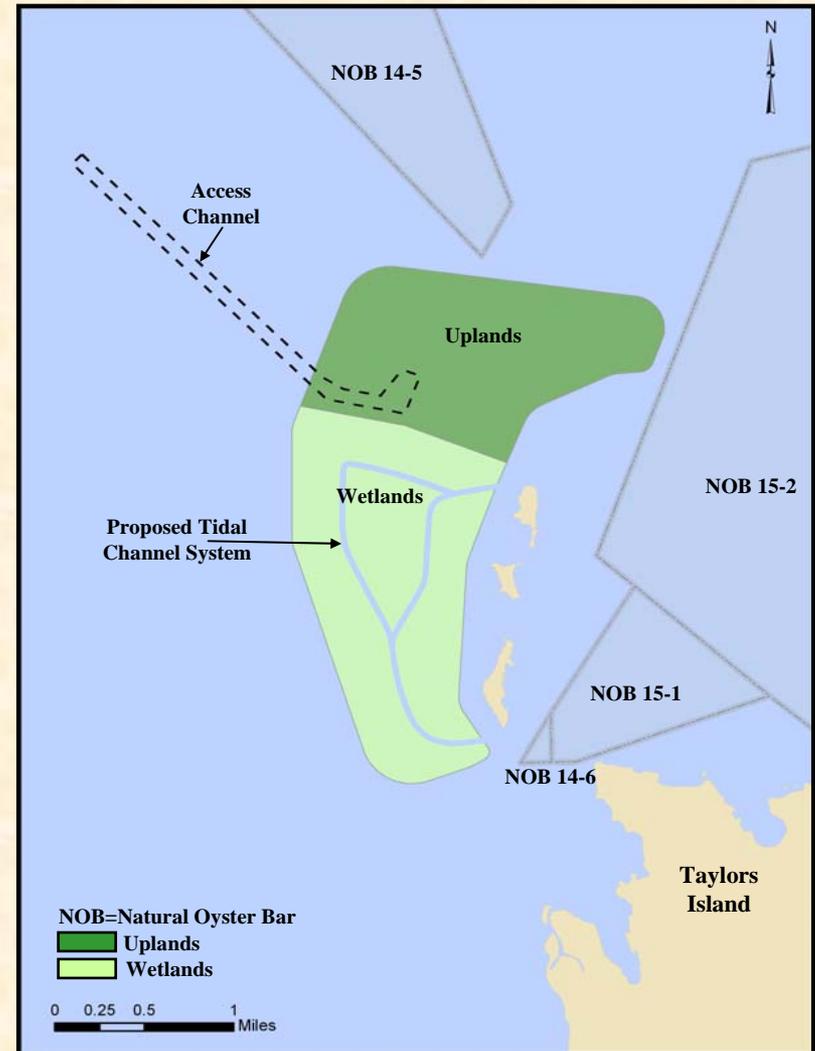


Recommended Plan

NER Plan - Combination of James Alignment 5 and Barren Alignment E

James Island

- 2,072 acres
- 55% wetland, 45% upland
- Upland dike height: 20 ft
- Access Channel Dredging
- Capacity: 90-95 mcy
- Placement Duration: 28-30 years
- Design Features
 - Tidal channels through wetlands
 - Freshwater ponds
 - Intertidal/unvegetated mudflats
 - Bird nesting structures

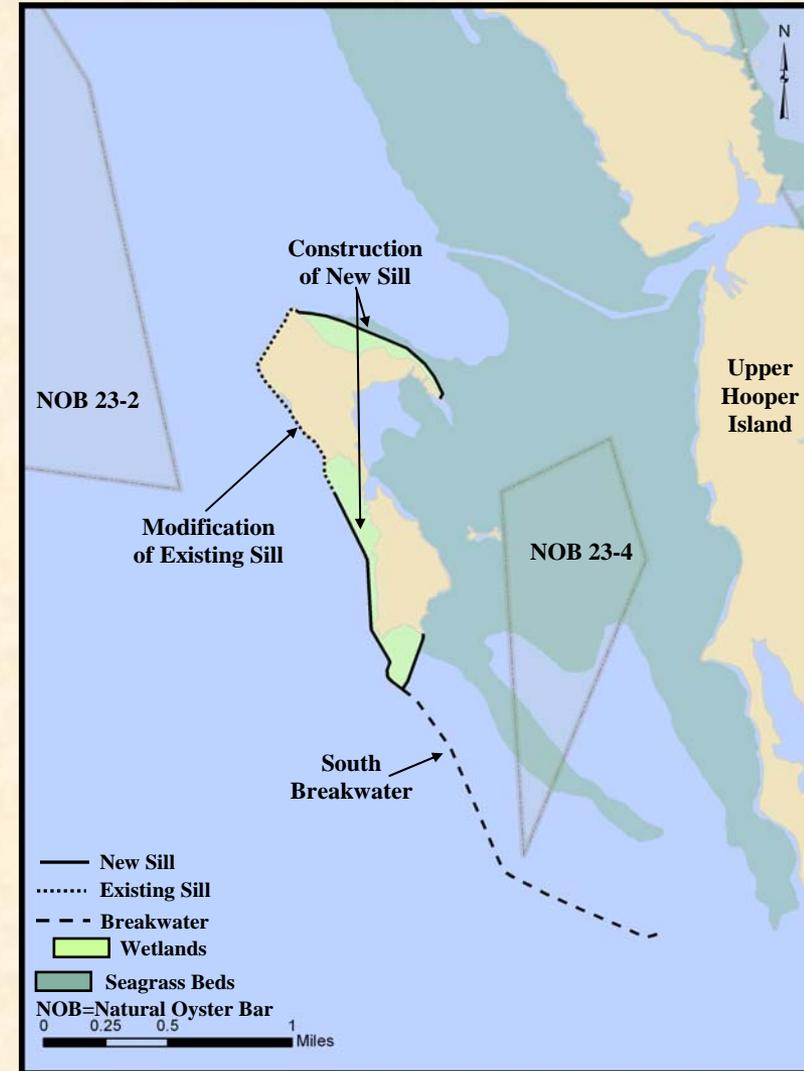


Recommended Plan

NER Plan - Combination of James Alignment 5 and Barren Alignment E

Barren Island

- 72 acres of wetland restoration, plus protection of existing island remnants and seagrass beds
- Sill height: 4 ft
- Southern Breakwater height: 6 ft
- Capacity: 0.38 mcy
- Placement Duration: ~7 years
- Design Features:
 - Existing sill modifications (4,900 ft)
 - Northern sill construction (9,760-ft)
 - Southern breakwater construction (8,200-ft)



Impacts of the Recommended Plan

Erosion of remote islands creates adjacent shallow open waters which are impacted when the island is restored. This project will impact:



- 2,172 acres of open water habitat lost
- 399 acres of shallow water habitat (water depth <6 ft) lost
- Bay bottom/benthic habitat loss
- Waterfowl foraging habitat loss
- Displacement of recreational and commercial fisheries
- Viewshed change
- Alters local navigation patterns



Benefits of the Recommended Plan

- Restores approximately 2,144 acres of remote island habitat, including 1,212 acres of tidal wetlands
- Protects the existing Island remnants and habitats
- Protects the existing seagrass beds at Barren Island and promotes conditions to establish additional seagrass beds
- Enhances habitat for avian, recreationally and commercially important fish, and wildlife species
- Provides protection from erosion to Maryland's Dorchester County by reducing wave heights
- Meets the long-term capacity need identified in the Federal DMMP
- Allows the deep-draft shipping channels to the Port of Baltimore to remain open and navigable



Photo: Poplar Island



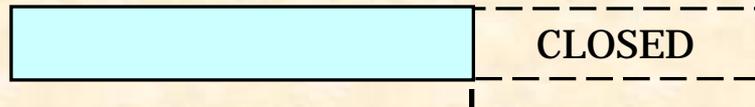
Dredged Material Placement Capacity

Sites Existing and Authorized
3.2 mcy/yr need

Calendar Years

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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POOLES ISLAND (1.2 mcy/yr Annual Capacity)



POPLAR ISLAND EXISTING (2.0 mcy/yr)



POPLAR ISLAND EXPANSION (2.0 - 3.2 mcy/yr) *



Dredged Material Placement Capacity

Sites Existing, Authorized, and Under Study
3.2 mcy/yr need

Calendar Years

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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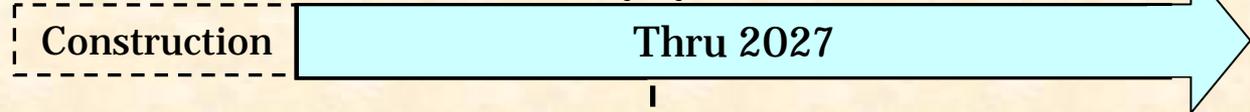
POOLES ISLAND (1.2 mcy/yr Annual Capacity)



POPLAR ISLAND EXISTING (2.0 mcy/yr)



POPLAR ISLAND EXPANSION (2.0 - 3.2 mcy/yr)



MID-BAY ISLAND (3.2 mcy/yr)



DMMP requirements for 20-yr plan met in 2018 with implementation of a 32-yr plan.



NEPA Compliance

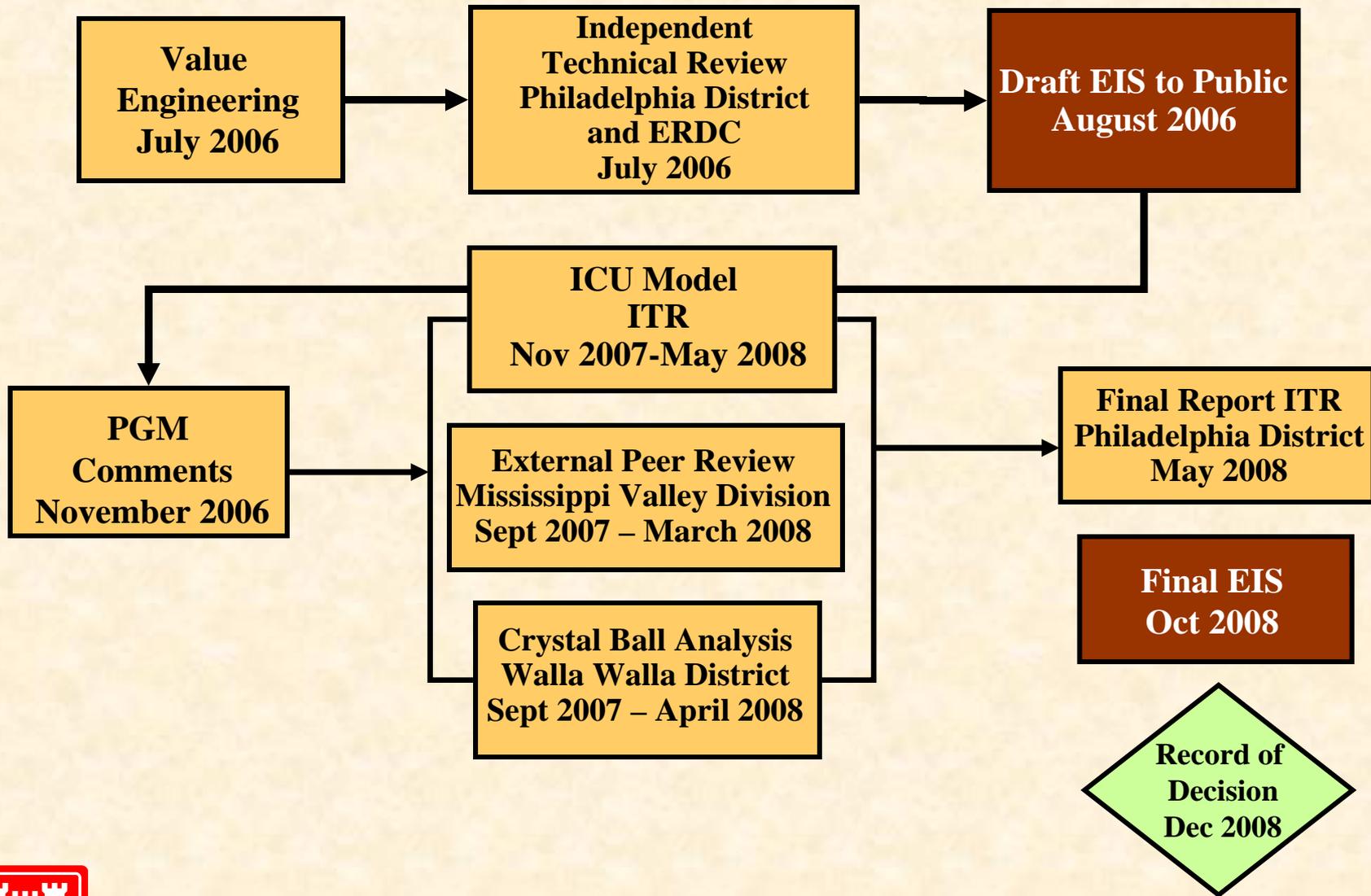


Photo: Poplar Island

- Draft Feasibility Study/EIS was released in August 2006
- Received highest rating (lack of objections) from US Environmental Protection Agency
- Section 7 Endangered Species Act (ESA) consultation complete
US Fish and Wildlife Service: determination of no effect
National Marine Fisheries Service: determination of no effect
- Section 106 consultation with State Historic Preservation Office (SHPO) is complete
- Final Coastal Zone Consistency Determination process is ongoing
- Project is in compliance with all other applicable Federal and State regulations and pertinent Executive Orders



Review Process



Estimated Costs for the Recommended Plan

Combination of James Alignment 5 and Barren Alignment E

(Costs are in \$1,000s)

(October 2007 Price Levels)

	<u>Total First Cost</u>	<u>Fully Funded</u>
<u>James Island</u>	\$1,495,220	\$2,711,250
Pre-Construction, Engineering, and Design (PED)	\$1,786	\$2,195
Operations and Maintenance (O&M)	\$20,050	\$37,578
OMRR&R	\$3,466	\$7,092
Recreation	\$204	\$555
<i>Total for James Island</i>	<i>\$1,520,726</i>	<i>\$2,758,670</i>
<u>Barren Island</u>	\$43,421	\$47,324
Pre-Construction, Engineering, and Design (PED)	\$282	\$304
LERR	\$69	\$79
Operations and Maintenance (O&M)	\$164	\$183
<i>Total for Barren Island</i>	<i>\$43,936</i>	<i>\$47,891</i>
<i>TOTAL PROJECT COSTS</i>	<i>\$1,564,662</i>	<i>\$2,806,561</i>

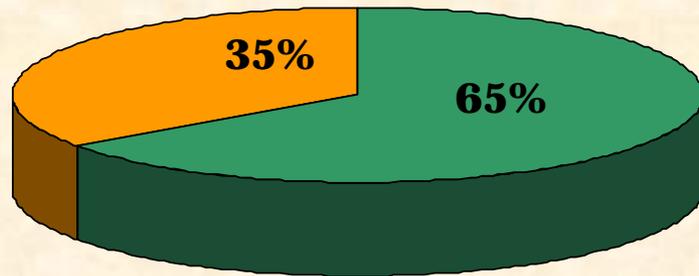


Cost Share for the Recommended Plan

Total cost (baseline) = \$1.565 billion

James Island

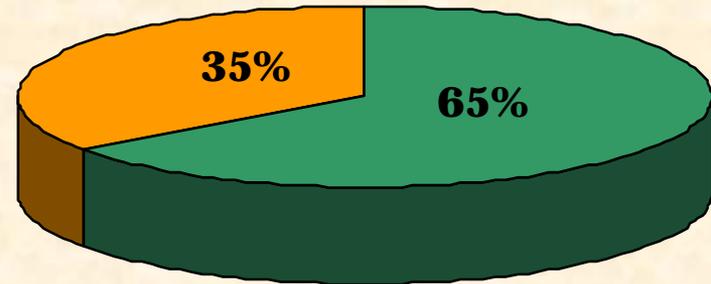
- Ecosystem Restoration / Beneficial Use of Dredged Material
- Total = \$1.521 billion



- Federal: \$986 million
- Non-Federal: \$534 million

Barren Island

- Ecosystem Restoration
- Total = \$43.9 million



- Federal: \$28.6 million
- Non-Federal: \$15.3 million

*PED costs are 75% Federal and 25% non-Federal;
Recreation costs are 50% Federal and 50% non-Federal;
OMRR&R is 100% non-Federal



USACE Key Civil Works Principles



ENVIRONMENTAL OPERATING PRINCIPALS

- **Build and share an integrated scientific, economic, and social knowledge base**



ACTIONS FOR CHANGE

- **Comprehensive systems approach**



USACE CIVIL WORKS STRATEGIC PLAN

- **Repair past environmental degradation and prevent future environmental losses**



Project Summary

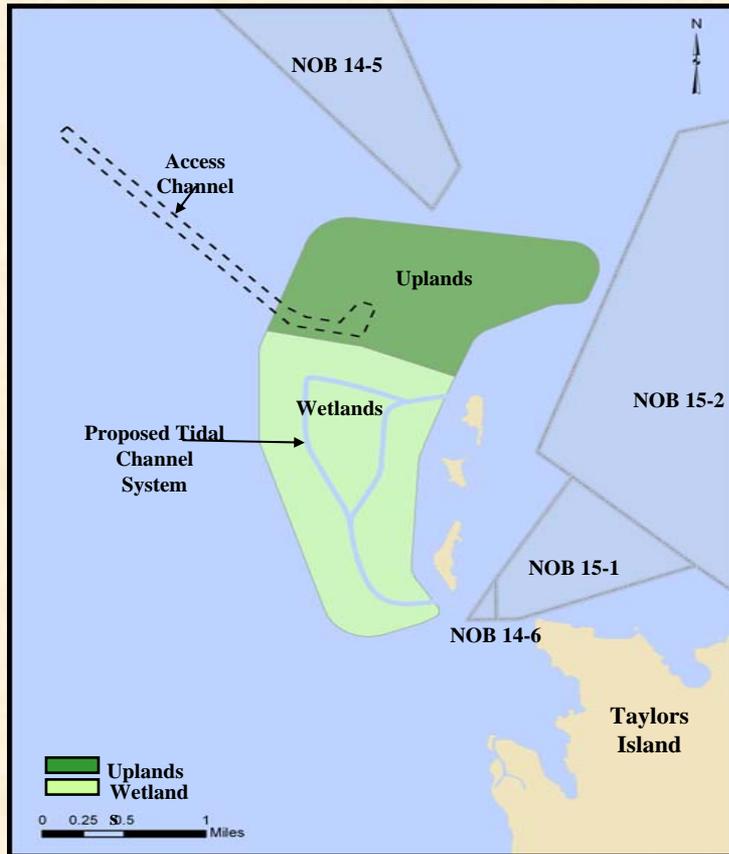
The Recommended Plan:

- Benefits the environment by restoring approximately 1,212 acres of wetlands and 932 acres of uplands
- Supports Chesapeake 2000 goal of restoring healthy habitats through wetland restoration, protection of existing seagrass beds, and promoting conditions for the establishment of future seagrass beds
- Supports Chesapeake 2000 goal of restoring healthy waters by reducing localized turbidity
- Supports navigation by providing 90-95 mcy of dredged material placement capacity
- Addresses regional sediment management needs by meeting the long-term dredged material placement shortfall identified in the Federal DMMP
- Integrates lessons learned and comprehensive adaptive management
- Has support of the sponsor, the public and the agencies



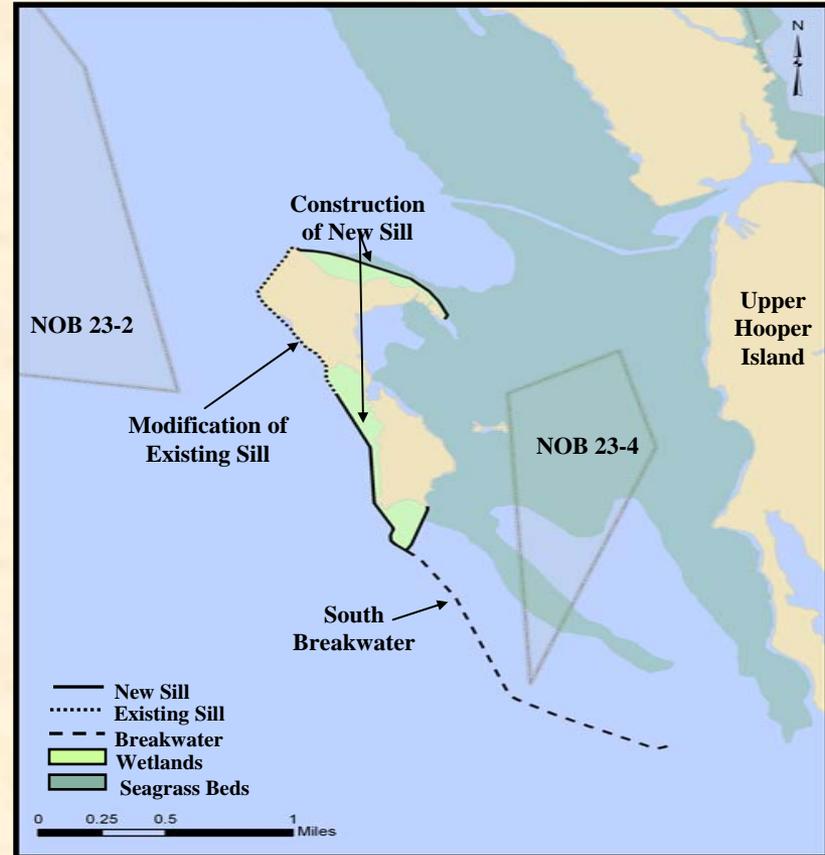
Recommendation

James Island



Total acres = 2,072

Barren Island



Total acres = 72

Recommend project approval by this Board to release for State and Agency review



Port of Baltimore Support for the Mid-Chesapeake Bay Island Ecosystem Restoration

Frank L. Hamons

*Deputy Director for Harbor Development
Maryland Port Administration*

Civil Works Review Board

July 17, 2008



Purpose of the Presentation

- Maryland Port Administration supports the Mid-Chesapeake Bay Island Ecosystem Restoration because:
 - the project restores more than 2000 acres of remote island habitat (wetlands and uplands) at James Island and more than 70 acres of wetlands at Barren Island under the Mid-Bay Island Project
 - using 3.2 mcy/yr of clean dredged material from the Baltimore Harbor Navigation project starting in 2018.



Port Environmental Initiatives Are Key Part of DMMP

- Beneficial and innovative uses of dredged material
- Environmental restoration:
 - Poplar Island
 - Hart-Miller Island
 - Swan Creek Wetlands (Cox Creek)
 - Proposed: James, Barren, Blackwater
- Mitigation and enhancement
 - Masonville Cove, stream projects, trash collectors
 - Sparrows Point (proposed): North Point, Dundalk, Turner Station
- Environmental Management System
- DMMP Bay Enhancement Working Group
- Oyster restoration program
- Ballast Water Treatment Testing Facility



Dredged Material Management Act of 2001

- Mandated 20-yr Dredged Material Management Program (DMMP)
- Prioritized Placement Options in the Following Hierarchy
 - Beneficial Use and Innovative Reuse
 - Upland Sites and Other Environmentally Sound Confined Capacity
 - Expansion of Existing Facilities
 - Other Options to Meet Long-Term Placement Needs (Excluding Redeposition in an Unconfined Manner)



Maryland's 20-yr DMMP Plan

- Use partnership approach to implement sustainable options benefiting Maryland's economy, ecosystem, and communities
- Bay
 - Poplar Expansion operational 2015
 - Mid-Bay (James/Barren) operational 2018
- Harbor
 - Masonville and Enhancements operational 2010
 - Sparrows Point and Enhancements operational 2014
 - Innovative reuse demonstration 2008



MPA Partnership Role in Environmental Initiatives

- **Support for USACE restoration and protection of remote island habitat:**
 - **Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island**
 - **Hart-Miller Island**



- **Support for Chesapeake Marshlands restoration**



- **Support for oyster restoration projects**



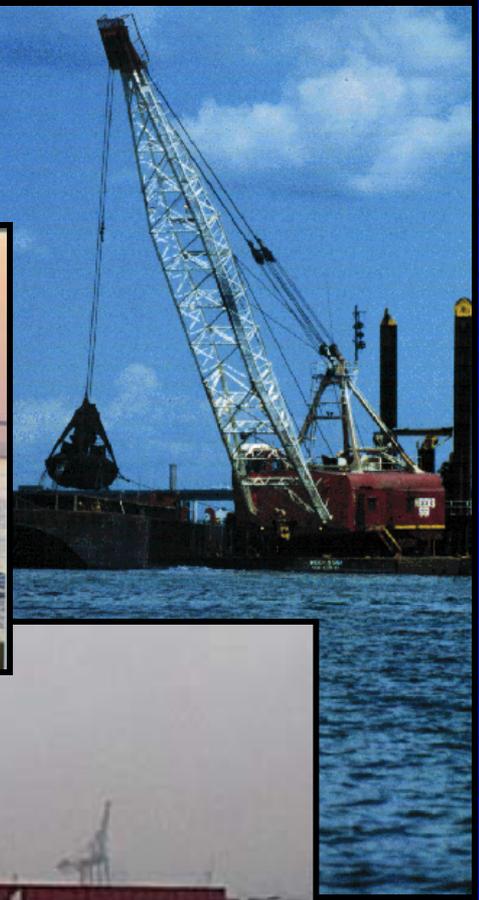
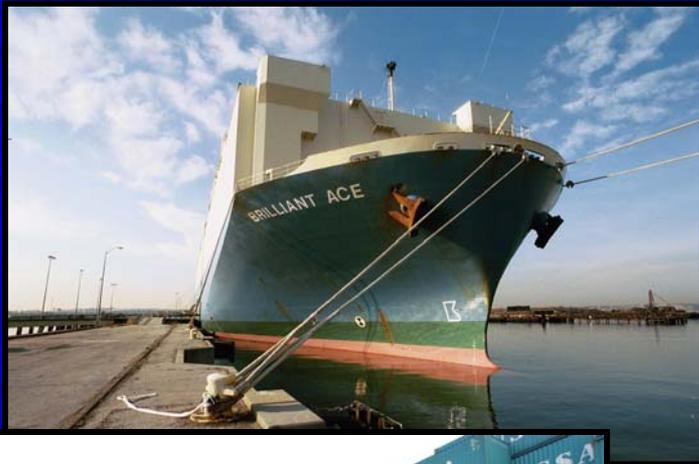
A Competitive Port Directly Supports Our Goal of Sustainability

We Strive to Benefit Maryland's Citizens, Economy, and Environment by:

- *Balancing environmental performance with economic development*
- *Becoming a world leader in environmental management*
- *Preserving, protecting, and enhancing our communities & the Chesapeake Bay*



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



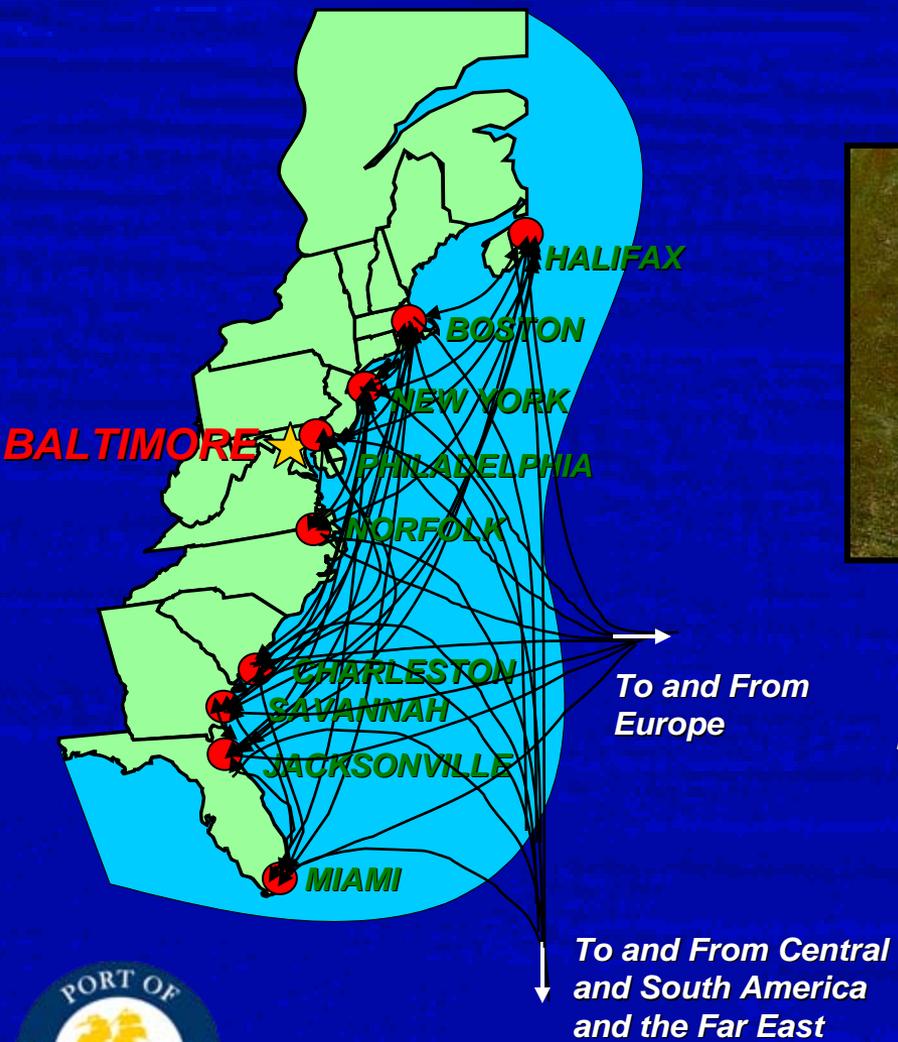
The Majority of U.S. Overseas Trade Travels by Ocean-Going Ships

- **Port activity accounts for:**
 - 95% of U.S. overseas trade by weight
 - 75% of U.S. overseas trade by value

(Data Source: U.S. Census Bureau)
- **The volume of cargo moving through U.S. ports is projected to triple by 2020** *(Data Source: U.S. Customs)*



The Port of Baltimore is a Vital Part of the East Coast Shipping Network



Chesapeake Bay and Delaware Bay



Baltimore Harbor

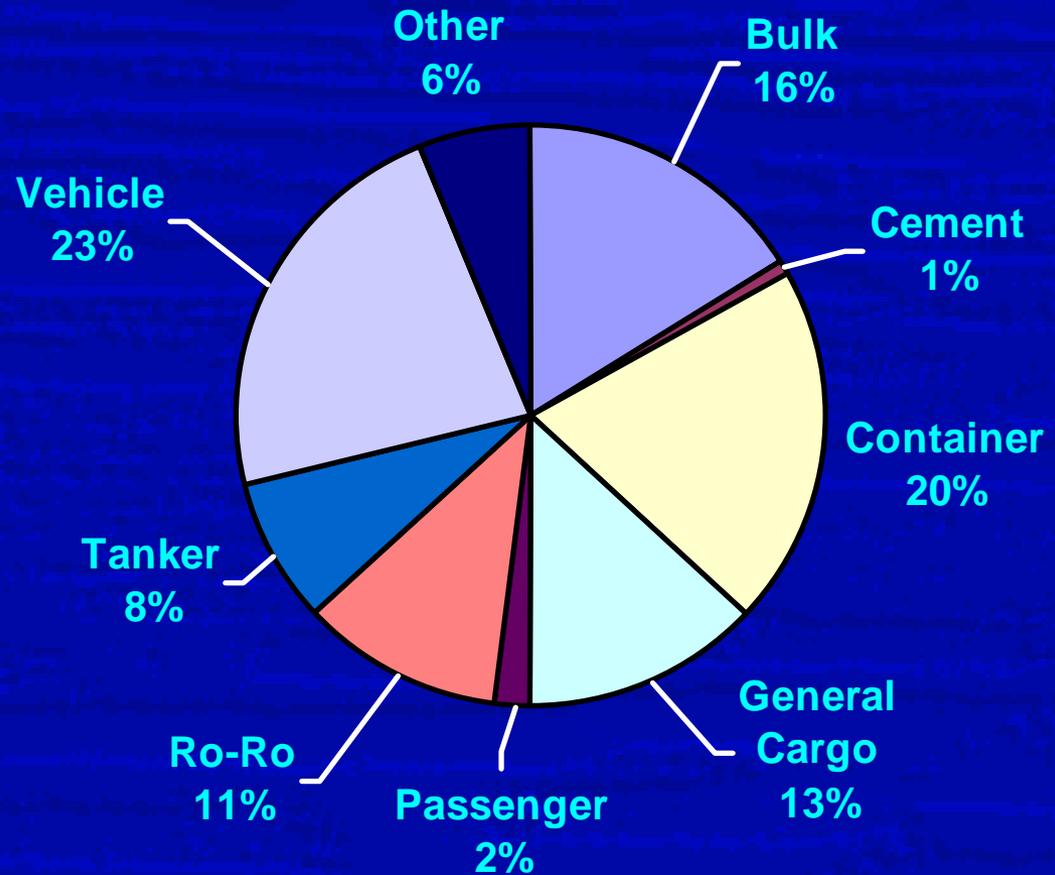


Port of Baltimore



Overview of the Port of Baltimore

- **45 miles of waterfront**
- **Composed of 7 public marine terminals and 23 private facilities**
- **An average of 2,000 vessels call on the Port of Baltimore each year**
- **2007: 6th consecutive year of Port setting tonnage records**



Economic Impact of the Port of Baltimore

- *Tens of thousands of **jobs** in Maryland are associated with cargo and vessel activity at the Port*
- *Direct employees generate business and federal government **revenue***
- *Direct, induced, and indirect employees generate state, county and municipal **taxes***



2008

53



Investment in the Port Brings Return

New long-term contracts are being signed and the Port is continuing to grow and improve facilities

- Mercedes Benz signed new long-term contract*
- Hyundai Motor America opened port facility*
- Ford Motor Company focused exports at the Port*
- Royal Caribbean helped inaugurate the new cruise terminal's second season; Norwegian Cruise Lines added summer sailings in 2008; Carnival plans year-round cruise sailings starting in 2009*



Bay Sites, Existing, Authorized, & Under Study (3.2 Mcy/yr Need)

Calendar Years

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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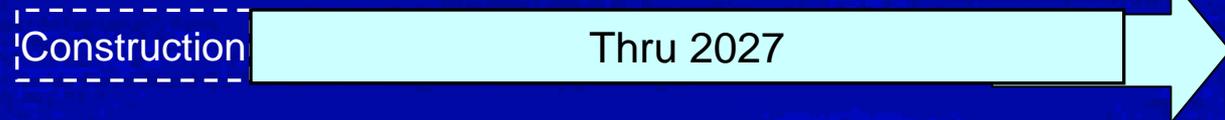
POOLES ISLAND (1.2 Mcy/yr)



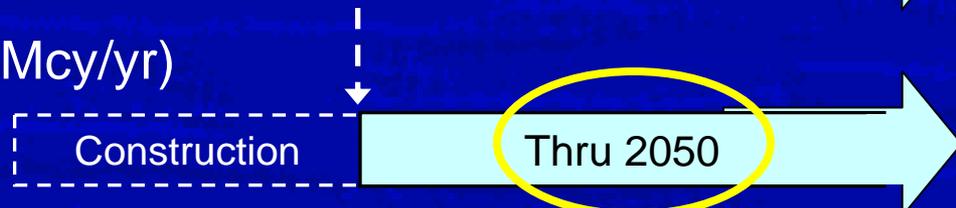
POPLAR ISLAND EXISTING (2.0 Mcy/yr)



POPLAR ISLAND EXPANSION (2.0 - 3.2 Mcy/yr)



MID-BAY ISLAND (3.2 Mcy/yr)



A 20-yr Plan is implemented in 2020.



In Summary

- Maryland Port Administration supports the Mid-Chesapeake Bay Island Ecosystem Restoration because:
 - the project restores more than 2000 acres of remote island habitat (wetlands and uplands) at James Island and more than 70 acres of wetlands at Barren Island under the Mid-Bay Island Project
 - using 3.2 mcy/yr of clean dredged material from the Baltimore Harbor Navigation project starting in 2018.



North Atlantic Division Position

- Concurrence with NAB District Commander's findings & recommendations.
- Confirm that the report complies with all applicable policy & laws in place at this time.
- Anticipate favorable response to the draft Chief's Report recommending implementation for both James Island and Barren Island restorations.
- Mid-Bay island restoration supports regional efforts to restore Chesapeake Bay ecosystem, and meet projected dredged material placement shortfall.
- As with Poplar Island, a showcase for strong agency coordination reflecting a collaborative process with USACE in early plan formulation and continuing on throughout the duration of this study.



North Atlantic Division

➤ Agencies / Stakeholders who strongly support project

- ☑ Maryland Senators Benjamin Cardin and Barbara Milkulski
- ☑ US National Marine Fisheries Service
- ☑ Maryland Department of the Environment
- ☑ USEPA (DEIS Lack of Objections)
- ☑ US Fish and Wildlife
- ☑ Dorchester Soil Conservation District
- ☑ Maryland Environmental Service
- ☑ Maryland Port Administration
- ☑ Maryland Department of Transportation
- ☑ Walla Walla Cost Engineering CX
- ☑ MVD ECO-PCX
- ☑ Dorchester Citizens for Planned Growth
- ☑ Dorchester Shoreline Erosion Group
- ☑ Maryland Department of Natural Resources

➤ Agencies / Stakeholders who oppose project

- ☑ None



Quality Assurance Briefing: North Atlantic Division

- NAB QC Report dated March 2005 & June 2008.
- NAP – Agency Technical Review Certification and findings dated September 2005 & June 2008.
- MVD Eco –PCX led quality assurance with NAD.
- Review Certification Signatures for entire study team and QC team members are included.



Certification of Legal & Policy Compliance

- Legal certification of Final Integrated Feasibility Report & EIS made by NAB District Counsel on 29 May 2008.
- Policy Compliance: Agency Technical Review conducted by NAP. ATR certification includes signature of review team. All comments have been resolved coordinated and accepted by Eco-PCX.
- Eco-PCX endorsed Final EPR report and confirmed it was conducted in accordance with EC1105-2-407. Memo dated 5 May 2008.
- Eco PCX confirmed rigorous ITR conducted (ERDC) and deemed Island Community Index model appropriate for this study, May 2008.
- Walla Walla District, Cost Engineering Center CX, ITR Certification and completion of Cost Risk Analysis (Crystal Ball) - April 2008.



North Atlantic Division Recommendation

- Approve Final Report.
- Release for State and Agency Review.
- Complete Chief's Report.



Civil Works Review Board

Significant Policy Review Concerns

Mid-Chesapeake Bay Islands Project

Mark Matusiak

Office of Water Project Review

Planning and Policy Compliance Division

Washington, DC – July 17, 2008



Mid-Chesapeake Bay Islands Project

Policy Issues:

- Without-Project Conditions
- Timing of Development
- Implementation Authority
- MCACES Costs
- OMRR&R
- Sponsor Credit



Mid-Chesapeake Bay Islands Project

Without-Project Conditions

Concern: The AFB materials did not reflect implementation of the Poplar Island expansion under the without-project condition, since it had not yet been authorized. This led to concerns that the study did not reflect the most likely future conditions. As a result the disposal capacity problem was overstated.

Reason: Corps evaluates the most likely future conditions as a basis for planning and impact evaluation.

Resolution: The report was recast to reflect the authorization and implementation of Poplar Island Expansion as part of the most likely future without-project conditions. Concern is resolved



Mid-Chesapeake Bay Islands Project

Timing of Development

Concern: The AFB materials showed the Mid-Bay project being developed in the same time frame as Poplar Island Expansion. There was need to formulate the timing of James Island development, given the status of the Poplar Island Expansion.

Reason: Corps policy requires that formulation consider timing as a factor in establishing the optimal solution.

Resolution: The final report evaluated the timing for James Island implementation and concluded that dike construction that allowed filling by 2018 was optimal. Concern is resolved.



Mid-Chesapeake Bay Islands Project

Implementation Authority

Concern: The AFB materials proposed implementation of James and Barren Islands under separate authorities and different cost sharing. Unclear whether Section 207 represented a viable implementation option due to the high cost of James Island.

Reason: It seemed unlikely that ASA(CW) would recommend such a high cost project (greater than \$1 billion) without Congressional authorization.

Resolution: WRDA 2007 changed the beneficial use authorities, requiring Congressional authorization of James Island, and making cost sharing the same for both islands. Concern is resolved.



Mid-Chesapeake Bay Islands Project

MCACES Costs

Concern: The draft report information on MCACES costs appeared to be incomplete and presented information which was not clear regarding construction versus OMRR&R and ecosystem versus recreation activities.

Reason: It wasn't clear that the information provided a sound basis for project costs associated with each island or cost sharing.

Resolution: The final report includes revised estimates for each island that reflect the timing of investments. Concern is resolved.



Mid-Chesapeake Bay Islands Project

OMRR&R

Concern: The draft report was not clear when functional features were being turned over for local OMRR&R, how OMRR&R varied through time and whether the appropriate costs were shown as a basis for cost-shared construction versus local OMRR&R.

Reason: OMRR&R Costs are to be borne by the non-Federal sponsor.

Resolution: The final report indicates that dikes are being turned over for local maintenance in 2023, however turnover of other features has not been estimated at this time, will be refined during PED. It is not clear what OMRR&R costs are associated with Barren Island or the recreation facilities proposed. Concern is not resolved



Mid-Chesapeake Bay Islands Project

Sponsor Credit

Concern: The AFB materials showed numerous items in the detailed cost estimate being accomplished by the sponsor as in-kind work.

Reason: Specific Congressional authorization is required for sponsor in-kind work on a Congressionally authorized ecosystem restoration project. No Congressional authority exists for the Mid-Bay project.

Resolution: The report was revised to eliminate any references to in-kind work, since this had resulted from using Poplar Island Expansion as an example. Concern is resolved.



Mid-Chesapeake Bay Islands Project

HQUSACE Policy Compliance Review Team RECOMMENDATION

Release the Feasibility Report and EIS for
S&A Review



After Action Review

What Went Right?

Widespread support for the project as a result of extensive collaboration with agencies and stakeholders

- Applied lessons learned from Poplar Island to formulation/design of the Mid-Bay Island project**
- Use of experts during study and intensive external review of its major components supported the conclusions of the PDT**
- Sponsor understanding of Corps process**
- Primary HQ reviewers are still with the project; consistency**



After Action Review

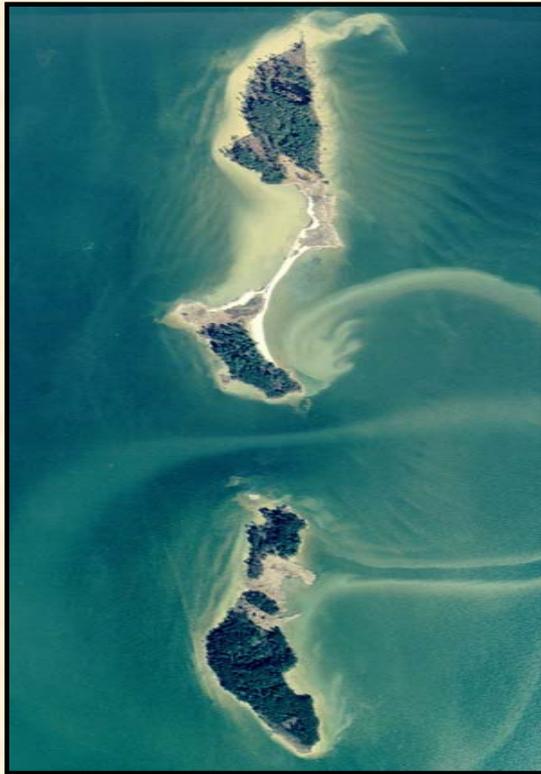
What Was Problematic?

- Managing change during study process – our PMPs must be more robust
- Evolving model certification procedures need to mature to achieve better consistency and application
- Future environmental benefits not discounted



Mid-Chesapeake Bay Island Ecosystem Restoration

Integrated Feasibility Report and Environmental Impact Statement



James Island

**Col. Peter W. Mueller
Commander
Baltimore District**

**Civil Works Review Board
July 17, 2008**



Barren Island

