



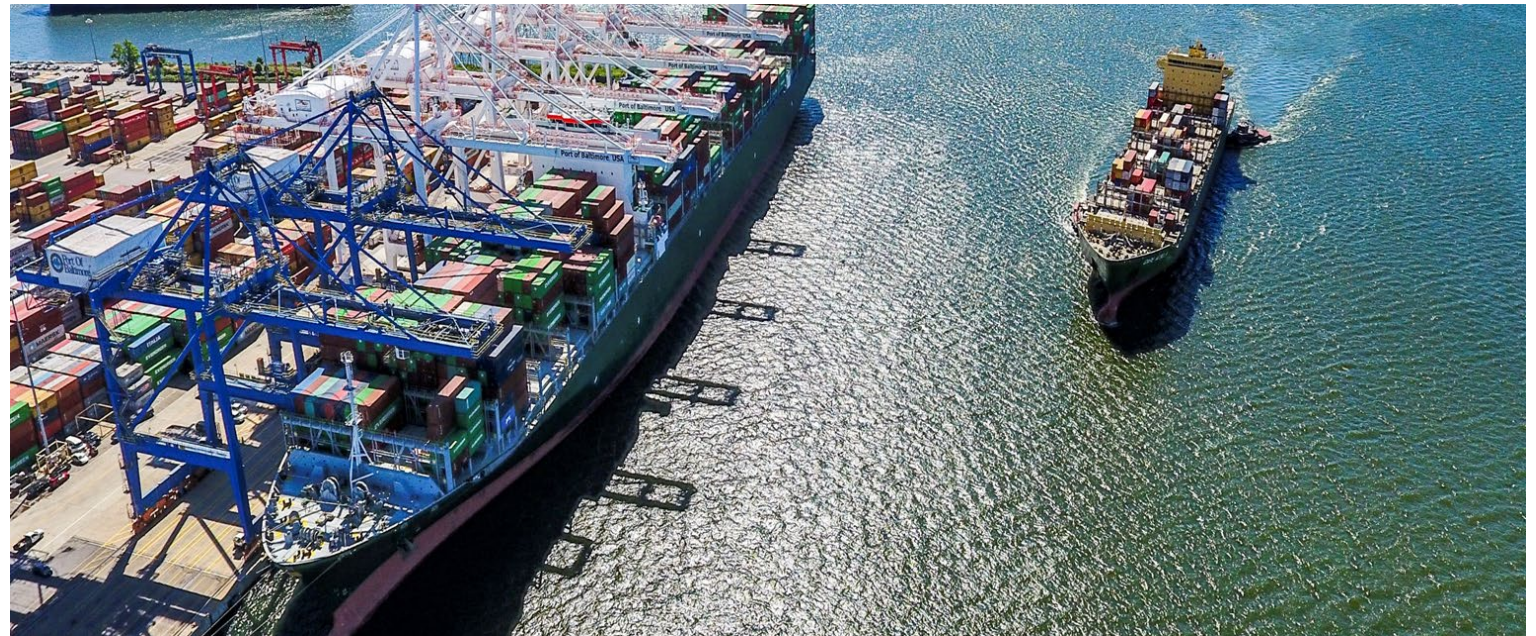
Planning, Restoration, and Resilience in Action

Beneficial Use of Dredged Material & Aquatic Ecosystem Restoration Projects

*Celebrating Success
Planning for Change*

**Forever Maryland
Conference
June 1, 2022**

Kristen Fidler, Director, Harbor Development, MDOT MPA



Maryland Navigation Channel System



Poplar Ecosystem Restoration Project



The John S. Sarbanes
Aquatic Ecosystem Restoration Project
at *Poplar Island*



1997

Poplar Island

Eastern Sho

2011

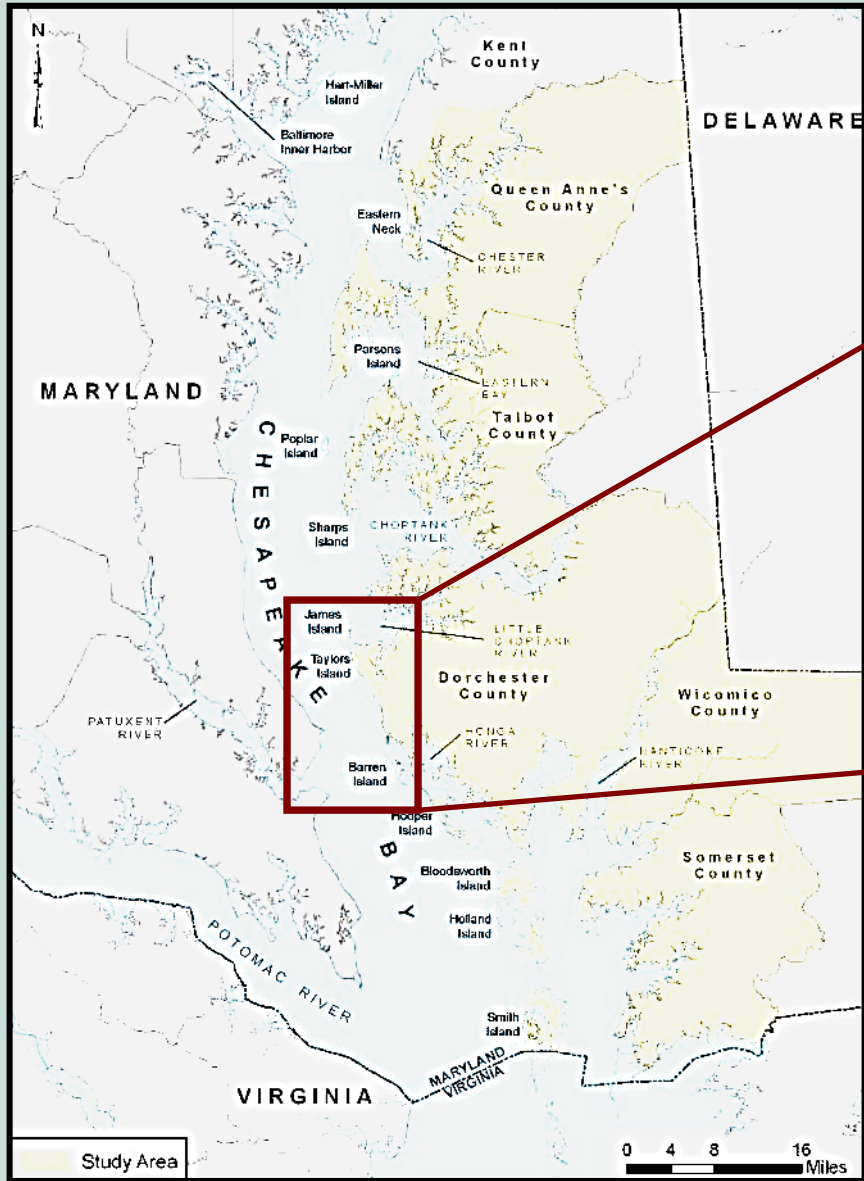
2 km

2019

2022

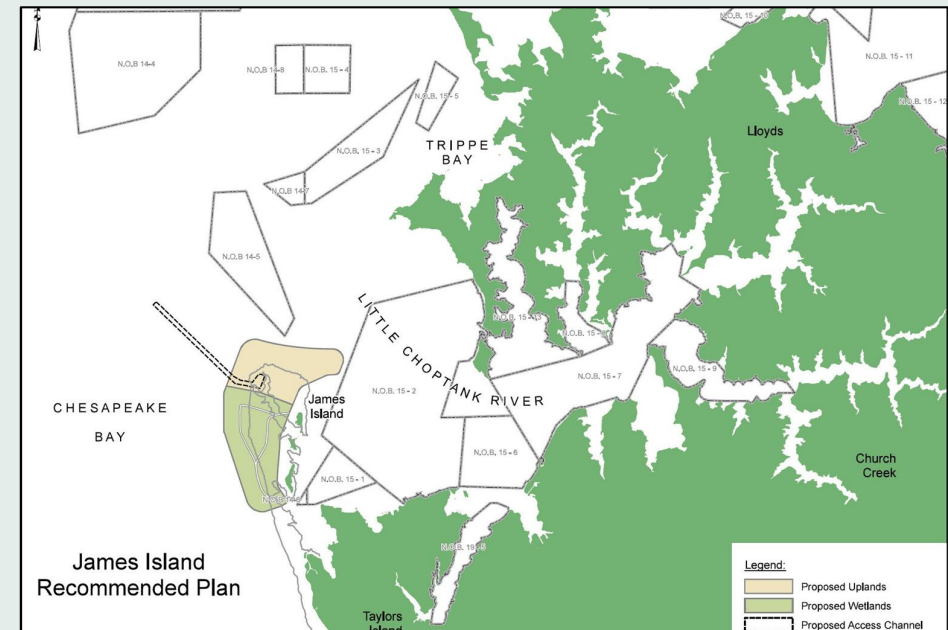
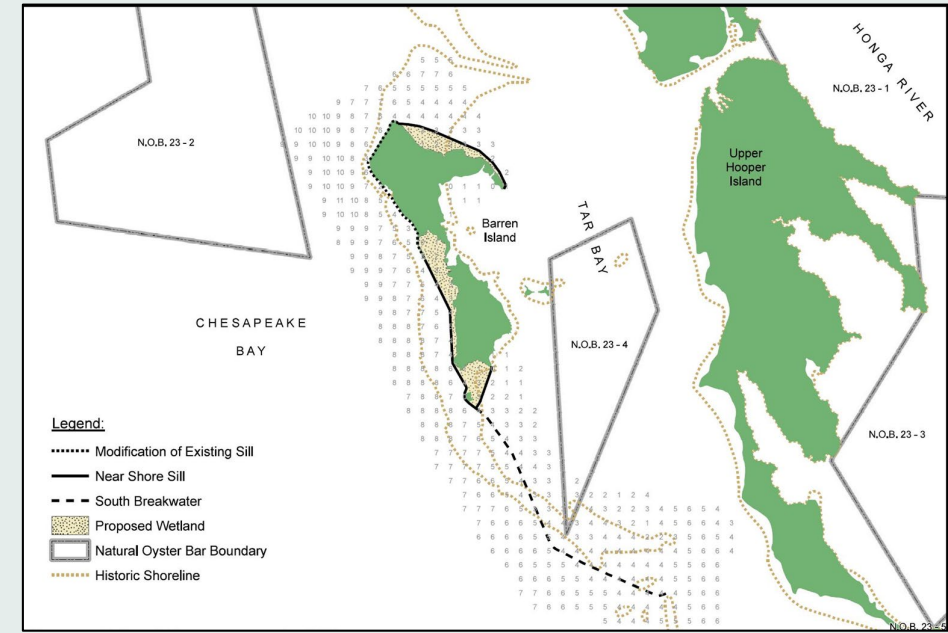


Mid- Chesapeake Bay Island Aquatic Ecosystem



Mid-Bay Island Ecosystem Restoration Project

- Barren Island - breakwaters to protect island remnants and SAV beds, 100% wetland habitat
- James Island - 2,072 acres of remote island habitat (~55% wetlands and 45% uplands)



Economic Benefits

- Will provide a ~\$1 million increase in both local property and recreation industry value over the next 10 years
- Creates ~550 total jobs in Maryland during construction
- Generates ~\$3.5 billion in economic activity, *separate from and in addition to* the Port of Baltimore's generated jobs and business impacts
- Provides 30+ years of dredged material placement capacity
 - For the Port's customers, who rely on our 50-foot deep channel, this is long-term, sustainable assurance of safe navigation
 - Maintaining deep and reliable access keeps the Port of Baltimore in a competitive position for waterborne commerce



Mid-Bay: Environmental Benefits

- **Restores:** 2,144 acres of remote island habitat, including 1,212 acres of tidal wetlands
- **Preserves:** existing Island remnants and habitats
- **Sustains:** existing seagrass beds at Barren Island and promotes conditions to establish additional seagrass beds
- **Enhances:** diverse wildlife habitat for avian and recreationally/commercially important fish species
- **Reduces:** erosion to local shorelines by decreasing wave heights



Ruddy turnstone observed on James Island



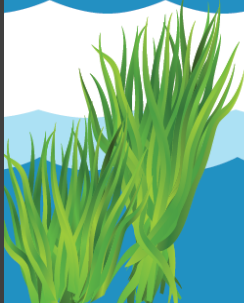
The Mid-Chesapeake Bay Island Ecosystem Restoration Project (Mid-Bay Project) is located in Dorchester County. The project will use dredged material from Maryland's Bay shipping channels to restore remote island and wetland habitat near Barren and James Islands. The Barren Island Pre-Construction Engineering & Design (PED) phase is anticipated to be completed in 2022. The following describes the anticipated benefits from the Barren Island portion of the project over the next 10 years.



\$1 MILLION
in property value benefits
due to reduced wave energy, improved water quality, and the presence of seagrass

1,300 ACRES of seagrass bed protection resulting from construction of stone sills and breakwaters surrounding Barren Island

UP TO 30% reduction in the storm-related shoreline erosion rate on Upper Hoopers Island and the area north of Fishing Creek



2 new bird nesting locations
adding 8.5 acres of scarce habitat for rare bird species that rely on the island

130 acres of existing wetlands, forest, and beach habitat protection
72 acres of restored remote island habitat - near Barren Island that will support diverse wildlife including Diamondback terrapin and Common Terns



\$1.5 MILLION
OF INCREASED VALUE TO THE RECREATION INDUSTRY

Enhanced boating, fishing and wildlife watching **experiences**

IMPROVED seagrass beds will attract game fish, crabs and oysters, and new habitats will provide wildlife watching opportunities



Barren Island Resiliency & Economic Benefits

- Up to 30% reduction in the storm-related shoreline erosion rate on Upper Hoopers Island and the area north of Fishing Creek
- \$1 Million in property value benefits due to reduced wave energy, improved water quality and other effects of protecting seagrass
- \$1.5 Million in enhanced boating, fishing and wildlife watching experiences
- 3 new bird nesting islands that adds 10 acres of scarce habitat for rare species
- 72 new acres of wetlands supporting diverse wildlife including diamondback terrapins and seabirds
- 400 acres of seagrass habitat for fish, crabs and birds will be retained that otherwise would have been lost due to increased sedimentation and wave energy

Next Steps - Barren Island

- Permitting/Receive Water Quality Certificate – April 2022
- Environmental Assessment Public Review: December 2021 – January 2022
- NEPA/FONSI issued – March 2022
- 100% Design Complete – June 2022
- Contract Awarded – Spring 2022
- Construction Begins – Fall 2022



Outreach & Stakeholder Engagement

- **Mid Bay Webinar:** <https://maryland-dmmp.com/webinars>
- **Mid Bay Video:** <https://maryland-dmmp.com/placement-sites/mid-bay-island>
- **Subscribe to Project Newsletters**
- **Open House Meetings with Citizens/Stakeholders/Watermen**

Mid-Bay ISLAND ECOSYSTEM RESTORATION PROJECT

Project Newsletter
Fall 2021

A community meeting will be held November 6, 2021. For more information please refer to the Upcoming Events section on the back.

Mid-Bay Webinar

Thank you to all who attended the May 19th Mid-Bay Spotlight Series Webinar, nearly 100 participants attended! The Mid-Bay webinar reviewed the project needs and associated environmental and economic benefits, the selection process for James and Barren islands for restoration, and the Mid-Bay restoration plan and schedule. Ingar Island was featured as a successful habitat restoration model for beneficial use of dredged material.

Another Spotlight Series Webinar, Building a Sustainable Port of Baltimore was held on September 29th. Recordings of both webinars can be found here: maryland-dmmp.com/webinars

Barren Island Restoration Plan

Pre-Construction Engineering & Design (PED) is currently underway for the Mid-Bay Project. The Barren Island restoration project will restore a minimum of 72 acres of remote island habitat. Upon modification/installation of protective stone sills (~13,000 linear feet/breakwaters (~4,600 linear feet), dredged material and sand will be used to create wetlands (400 acres) and two bird islands (~0.5 acres of nesting habitat). These improvements will protect the Barren Island main area and adjacent seagrass habitat. Additional details on the restoration benefits anticipated over the next 10 years can be found in the Barren Island infographic (see reverse side).

In May 2021, MDOT MPA submitted a permit application to the Maryland Department of the Environment (MDE) to obtain authorization to perform restoration work as stated above in tidal wetlands of Barren Island.

The permit has been placed on public notice by MDE. Written comments regarding the permit, and requests for a public hearing or to be included on the interested persons list may be submitted by November 29, 2021 to:

Maryland Department of the Environment
ATTN: Mary Phipps-Dickerson
407 Rees Street, Cambridge, MD 21613
410-901-4033 or Mary.Phipps-Dickerson@maryland.gov

The public notice can be viewed here: mda.maryland.gov/programs/permitsandlanduse/submit/aboutwetlands.aspx#subnre

Learn More

To learn more about the USACE and the Mid-Bay Project, please visit: <https://www.usace.army.mil/mid-bay>

To learn more about the MDOT MPA and the Mid-Bay Project, including a short informational video, please visit: maryland-dmmp.com

Questions? Comments?

For questions, comments or more information, please contact Kristin Keene at kkeene2@marylandports.com

Stay "In The Know"!

Sign up for project updates on the Maryland Dredged Material Management Program (DMMP) website: marylandports.com/placement-sites/mid-bay-island/

Mid-Bay ISLAND ECOSYSTEM RESTORATION PROJECT

A closer look at Barren Island's restoration benefits

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Thank You!

Kristen Fidler
Director, Harbor Development
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SEE IT FIRST HAND!

