MARYLAND PORT ADMINISTRATION DREDGED MATERIAL MANAGEMENT PROGRAM

2025 MID-YEAR REPORT

2025: Navigating Towards Tomorrow

The Maryland Port Administration (MPA) is charged with stimulating the flow of waterborne commerce through the State of Maryland in a manner that provides benefits to the citizens of the State. The MPA's Office of Navigation, Innovation, and Stewardship plays a crucial role in ensuring safe navigation for vessels by managing the sediment dredged from the Port's channels to maintain their depth and width.

The Dredged Material Management Program (DMMP) has made the following recommendations for 2025. These recommendations' economic, environmental, and social benefits will be felt for decades. MPA works closely with DMMP committee members, elected officials, state and federal agencies, non-profit and community organizations, business partners, and other stakeholders to achieve these goals.

» Funding & Policy Recommendations

1. Engage federal, state, and local elected officials, the American Association of Port Authorities, and other federal and state partners to ensure favorable legislation and sufficient funding for priority Dredged Material Management Program (DMMP) projects, the U.S. Army Corps of Engineers (USACE) navigation program, and projects that benefit and favorably position the Port of Baltimore in new legislation related to resilience and climate change.
2. Seek partnerships and available funding for DMMP-related greenhouse gas emissions reduction projects at the state and federal levels to meet the state's target of 60% reduction by 2031 and net zero by 2045.
3. Leverage partnerships with stakeholders and related collaborative efforts to facilitate legislation and funding. Examples of this work include engaging with the Maryland Commission on Climate Change and partnering with the Maryland Department of Natural Resources on existing sediment management planning. These efforts will help the DMMP and the Port address sustainability, climate change, and resiliency planning.

Targeting 60%

reduction of GHG by 2031

» Planning & Operations Recommendations

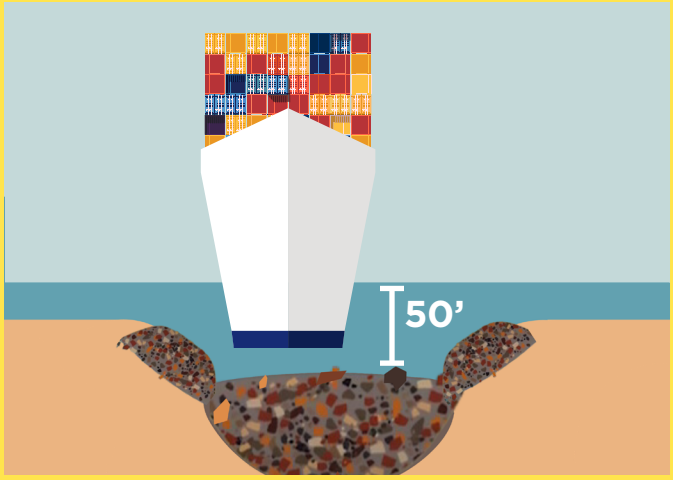
1. Conduct capacity and dredging demand planning beyond a 20-year timeframe to support long-term sustainable dredged material management options. Continue planning, design, and construction for future expansions at Masonville and Cox Creek dredged material containment facilities (DMCF) and mitigate associated environmental impacts while achieving capacity recovery through the 2020 Innovative Reuse & Beneficial Use Strategy.
2. Engage USACE, the Commonwealth of Virginia, resource agencies, and other stakeholders to refine the list of suitable, cost-effective dredged material placement options for the Virginia Channels, including beneficial use opportunities.
3. Continue to remediate the Cox Creek Sediment Technology and Reuse (STAR) facility and prepare the site, and issue a Request for Information to implement long-term, large-scale Innovative Reuse and capacity recovery efforts.
4. Collaborate closely with sister state agencies and the Hart-Miller Island Citizens Oversight Committee as future uses of the island are considered.
5. Incorporate the potential impacts of climate change and facilitate using nature-based and climate-resilient solutions into long-term DMMP project planning, DMCF design and operations, and related project delivery. Concurrently, leverage the best science available to quantify carbon sequestration benefits from the beneficial use of dredged material.
6. Activate the Bay Enhancement Working Group to review and identify information needed to consider Beneficial Use of dredged material in Baltimore Harbor, resulting in more transparent and predictable guidance for potential BU projects.
7. Ensure that planning, design, construction, and operational efforts related to DMMP infrastructure and restoration projects strive to leverage adaptive management, minimize environmental impacts, consider the equitable distribution of benefits, and ensure that vulnerable communities do not disproportionately bear associated adverse impacts.

» Outreach & Education Recommendations

1. Identify diverse community engagement opportunities in order to recruit members for all DMMP committees that reflect the diversity of the communities adjacent to and impacted by the Port of Baltimore and maintain transparency in DMMP decision-making processes.
2. Prioritize environmental justice by working closely with affected communities and stakeholders to develop and implement strategies that promote fairness and equity in the DMMP to pursue outcomes that equitably benefit all Marylanders.
3. Implement the comprehensive outreach and engagement strategy developed to focus on Confined Aquatic Disposal (CAD) in Baltimore Harbor and the importance of investigating emerging dredged material management approaches. This includes the initiation of the Bay Enhancement Work Group CAD Subcommittee focused on further evaluating the concept of CAD.
4. Collaborate with established programs for youth to increase access to DMMP sites and encourage the implementation of their creative ideas and assets as pathways to thriving career opportunities, including those in science, technology, engineering, math, and maritime-related industries.

Reporting in on 2025

MPA plans and implements sustainable, climate-resilient solutions to meet the Port of Baltimore's ongoing need to maintain a 50-foot-deep channel system. The Office of Navigation, Innovation, and Stewardship ensures that sediment dredged from the Port's channel system is used in productive and innovative ways that both include and benefit our local communities and the environment. In 2025, working from its rolling 20-year plan, the DMMP is carrying out strategic operational initiatives. Top priorities are Dredged Material Containment Facility (DMCF) expansion, capacity optimization, institutionalizing Innovative Reuse and Beneficial Use (IRBU), exploration of new dredged material management options, and welcoming new stakeholders with meaningful engagement.



» Funding & Policy

MPA continues to engage congressional delegations and federal and state partners to ensure favorable legislation, sufficient funding, and support for DMMP projects.

- Congressional tours of critical DMMP projects were hosted, including Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island) and the Mid-Chesapeake Bay Island Ecosystem Restoration Project (Mid-Bay Project) to ensure sufficient funding of these essential projects in planning for future dredged material placement.
- On May 29th, Chesapeake Bay Commission members joined MPA and USACE staff for tours of port facilities to learn about dredging and restoration work at Poplar and Mid-Bay, as well as to discuss future funding needs.
- The Water Resources Development Act of 2024 was signed into law on January 4, 2025, and included three critical provisions for the MPA:
    1. Authorization of construction on the Baltimore Harbor Anchorages and Channels Modification of the Seagirt Loop Channel;
    2. Directs the Secretary of the Army to examine the West Dundalk Branch Channel and Dundalk-Seagirt Connecting Channel, Baltimore Harbor Anchorages and Channels projects to determine if Federal assumption of maintenance is merited; and,
    3. Directs the Secretary, to the maximum extent practical, to expedite the completion of the Mid-Bay Project.
- The President's FY2026 budget was released on May 2, 2025, and MPA is closely monitoring congressional actions related to the budget. Of note, $71.9M was included in the FFY25 workplan for the Mid-Bay Project.

Reporting in on 2025

- MPA is undertaking an extensive Coastal Resiliency and Climate Change Vulnerability Assessment for the full suite of its sites: the Cox Creek DMCF, Masonville DMCF, Hart-Miller Island DMCF and its associated land bases, the Cox Creek Sediment Technology and Reuse (STAR) facility, Poplar Island, Mid-Bay Project, and mitigation sites (Masonville Cove and Swan Creek Mitigated Wetland including its associated Forest Conservation Easement). This effort aims to inventory, model, and analyze these facilities to assess risks associated with various levels of sea level rise and storm surges.
    - » As part of the Assessment, which will be finalized this summer, a DMMP Coastal Vulnerability web viewer is being created and will be finalized in the same timeframe. Planning is underway for the next phase of this work, which will include using hydrodynamic models to determine wave action impacts on site-specific locations and developing site-specific adaptation plans.
    - » Utilizing this report, MPA will make infrastructure and facility improvement decisions to maintain a competitive advantage for Maryland and accommodate projected long-term growth in waterborne cargo.
- This Spring, the Governor vetoed the Senate Bill 168 that would have prohibited the Maryland Department of the Environment (MDE) from processing or making any recommendation to the Board of Public Works (BPW) regarding an application for the alteration of any tidal wetland or waters of the state submitted to construct a CAD from June 1, 2025 through May 31, 2029. Despite this outcome, the MPA intends to uphold the intention of the bill, complete the efforts of the Bay Enhancement Working Group (BEWG) CAD Subcommittee and make the report publicly available, as well as notifying and engaging with elected officials prior to developing an application to the MDE for a permit to construct a second CAD pilot project in Baltimore Harbor.

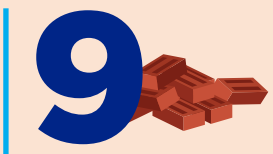
» Planning & Operations

MPA continues implementing strategic operational initiatives aligned with the rolling 20-year DMMP, including constructing new and expanding existing DMCFs, optimizing capacity, and exploring innovative dredged material management techniques and beneficial uses.

Innovative Reuse and Beneficial Use

MPA has achieved significant IRBU milestones and advanced toward strategic programmatic goals.

- MPA is working with the Innovative Reuse Committee to update the IRBU Strategy; finalization is expected by the end of the year.
- Cox Creek STAR Facility was formerly used for heavy industrial activities and thus requires environmental remediation. MPA purchased the property in 2022 with a settlement that included an administrative consent order with MDE and the previous site owner, providing a road map for remediating the site over ten years.
    - » MDE has approved the remedial action plans for the site, and portions of the property are expected to be available for development later this year.
    - » Short-term development plans include setting up a geotube field for drying dredged material near the Cox Creek DMCF, implementing a Request for Information to assess the capabilities of private entities to recycle dredged material for large-scale innovative reuse, and constructing a haul road between the Cox Creek STAR facility and the Cox Creek DMCF to enable easy and efficient access between the sites.
- A geotube pilot project is underway to evaluate various geotube fabrics and flocculants to determine the best combination for accelerated dewatering of sediment from the Cox Creek DMCF. This comparison will be instrumental in informing the design and best practices of a full-scale dewatering program at the Cox Creek STAR Facility and is crucial for assessing the viability of advancing full-scale reclamation of dredged material for IRBU.
- Dredged material has been effectively utilized to build a dirt road spur off the Swan Creek Nature Trail at Cox Creek and to enhance surface conditions on the Masonville Cove “claw” road by spot treating ruts.
- Discussions are underway with Baltimore City for MPA to supply dredged material as daily cover for the Quarantine Road landfill. The City wants to explore a long-term MOU with MPA to provide dredged material for daily and intermediate cover.
- BPW has approved nine IR research and development contract awards for sustainable reuse applications that support long-term, strategic planning initiatives and identify the critical steps to making large-scale IR a reality at the Port.
    - » So far, results from six of the IR projects have been shared, and the products — such as manufactured bricks, soil reengineered for sod growth, dredged material incorporated into concrete mixtures, and the use of dredged material as a lightweight aggregate – show potential for large-scale implementation. Noteworthy completed projects include collaborations with Belden-Eco Products, Fastrak Express, Harford Industrial Materials



9 R&D Projects Approved by BPW

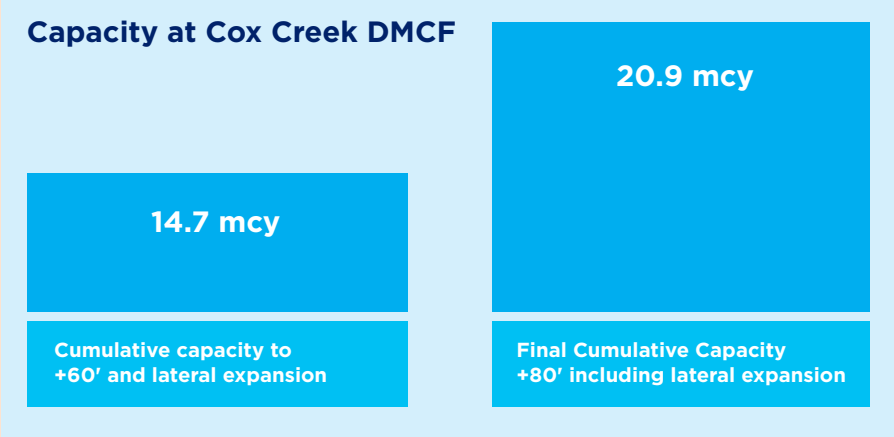
Inc., Suscon Products, Northgate Environmental Management, Inc., and CSI Environmental, and cover various innovative reuses deemed safe for residential and commercial use.

  - » Results of three more projects are expected this year.

- A new opportunity emerged in 2024 with the potential to reclaim large amounts of capacity at the Cox Creek DMCF: COMUS Sustainable Pozzolan Products is conducting research that explores using harbor dredged material as a natural supplement to concrete to help reduce GHGs associated with traditional cement production methods. Findings show that Harbor dredged material can be used as a natural pozzolan—a supplementary cementitious material— and blended with Portland Cement to create a durable "green cement" since the process does not include the usage of any fossil fuels.
- Two beneficial use projects are underway using Baltimore Harbor dredged material totaling 1,700 cy:
  - » MPA contributed **1,400 cy** of dried dredged material for the Stoney Beach restoration and living shoreline project in northern Anne Arundel County. Hauling of dried dredged material from the Hawkins Point DMCF was completed this spring.
  - » In Baltimore City, **500 cy** of dried dredged material from the Hawkins Point DMCF was used to remediate the Race Street wetland area, a former contaminated site, undergoing remediation.
- Colgate Creek, located between the Seagirt and Dundalk marine terminals, is being dredged to maintain safe navigation for vessels berthing at Dundalk Marine Terminal. Later this year, approximately **200,000 cy** of dredged material will be placed directly into geotubes at the Cox Creek DMCF for drying rather than being placed in the DMCF. Once water drains from the geotubes and the materials is dry, it can be innovatively reused or beneficially used. MPA will evaluate this management method for future dredging projects as an alternative placement option to save capacity in the Baltimore Harbor DMCFs.

Cox Creek DMCF and Swan Creek

- In 2024, MPA achieved a significant construction milestone at the Cox Creek DMCF by expanding the site upland and raising the perimeter and cross dike to +60 feet dike, increasing the overall capacity to **14.7 million cubic yards** (mcy). The feasibility study for the next expansion phase, raising to +80 feet, is complete, and MPA has kicked off the design process.
  - » MPA plans to submit a request to BPW in July to secure the easement and begin constructing the Genesee Valley Outdoor Learning Center mitigation project in the fall once all permit approvals are obtained.



- Progress has also been made on the Swan Creek Nature Trail adjacent to the Cox Creek DMCF, developed in close collaboration with the Cox Creek Citizens Oversight Committee. This trail will create an approximately two-mile loop through the forest conservation easement area, providing enhanced access for surrounding communities and valuable outdoor recreation and education opportunities. The design is complete, with permitting in progress and construction anticipated to begin in late 2025. The trail is expected to be open to the public in 2026.

Mid-Chesapeake Bay Island Ecosystem Restoration Project

- The Mid-Bay Project is advancing, with notable progress on design and construction. It will provide a valuable opportunity for the beneficial use of dredged material as Poplar Island approaches placement capacity. Run jointly by the US Army Corps of Engineers (USACE) and MPA, the project will restore **2,144 acres** of valuable remote island habitat within the Chesapeake Bay while providing a total dredged material placement capacity of **90-95 mcy** over the next 30+ years.
  - » **Barren Island** - Phase 1 Construction is complete. Phase 2 construction began in January 2025 and is expected to last approximately three years. This phase includes:
    - Building two islands along the southern breakwater that will create bird habitat.
    - Building structures inside the southern sill for dredged material containment.

- Creation of the southern spillway, which controls water release during and after dredged material placement.
- Replacing the existing northeast sill foundation with stronger foundation material and installing the remaining northeast stone sill.
- Dredging of the Honga River Channel and placement of dredged material in the southwestern wetland for habitat restoration.

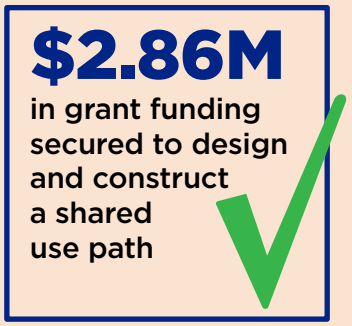
» **James Island** - Design is ongoing, with modeling and geotechnical analysis used to determine the project's final alignment and structural components. The project partners must obtain two permits to proceed with construction: a Tidal Wetlands License and a Water Quality Certification. The Tidal Wetlands License application was submitted in 2024, and the Water Quality Certification application was submitted this spring. A public comment period and hearing for these permits will likely occur during the second quarter of 2025.

Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island)

- Poplar Island is an international model for the beneficial use of dredged material with learnings from this effort informing the Mid-Bay Project. The **1,715-acre site includes 68 mcy of DM capacity.** Inflow of material occurred in early 2025 as expected, with subsequent inflow expected in January 2026.

Masonville DMCF and Masonville Cove

- Dike raising at the Masonville DMCF to an elevation of +30 feet is 75% complete and slated for completion by late 2025, eight months ahead of schedule. This dike raising first required drainage improvements on one of the neighboring terminal lots. The steep slope design of the expanded dikes will maximize storage capacity for dredged material. The design for raising the dike to +42 feet is also underway. Design work began in August 2024 and is expected to be complete by the end of 2025. The goal is to have a gap of only a few months between construction to +30 feet and initiation of construction to +42 feet. The final elevation of +42' will result in the site gaining approximately 5.6 mcy of capacity.
- As the nation's first Urban Wildlife Refuge Partnership, Masonville Cove is well established as an educational and recreational community treasure, but gaining access to the site can be challenging. Consistent with its promise to restore access to the waterfront for the communities surrounding the Masonville DMCF, MPA, and other partners have secured grants totaling **$2.86 million** from the Federal Highway Administration Federal Lands Access Program (FLAP) and USFWS to design and construct a shared-use path connecting Masonville Cove to the adjacent communities. The Masonville Cove Connector is currently in the 30% design stage, with a recommended project concept. The project team is currently working on completing the 30% design phase, with design completion expected in summer of 2027. This will increase safe and equitable access to the site and serve as an important link to over 20 miles of regional trails, providing walking and biking connectivity to dozens of neighborhoods, a regional hospital, and wellness facilities.



Hart-Miller Island

- MPA and Maryland Environmental Service continue to explore funding options for the North Cell Habitat Development of Hart-Miller Island, in collaboration with the Maryland Department of Natural Resources (DNR) and the Hart-Miller Island Citizens Oversight Committee. Several alternatives for the development of the North Cell were explored. Coordination on the concept design continues.
  - » MPA continues to partner with the Friends of Hart-Miller Island State Park to explore recreation enhancement opportunities and pursue philanthropic funding for the park, which reopened for seasonal recreational use on May 1.

Modification of the Seagirt Loop Channel

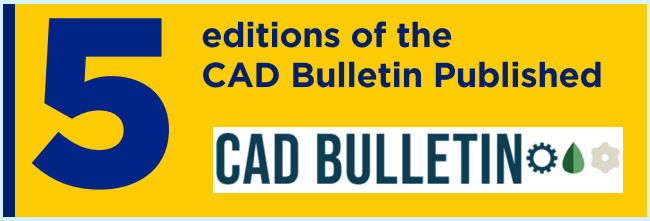
- In partnership with the USACE, MPA initiated the Seagirt Loop Feasibility Study to assess the need for navigational improvements to the Seagirt Loop Channel system. The study, completed in 2023, recommended that the channel be deepened to 50 feet and widened at the bends to allow for safe passage by ultra-large container vessels. These changes will improve navigation efficiencies to help meet the demand for future capacity at Port facilities, including efficient handling of increased container volume at Seagirt Marine Terminal and faster and safer movement of vessels transiting the channels.
  - » The pre-construction engineering and design phase began on Sept 26, 2024, when MPA and USACE executed an agreement to cost-share the design efforts, 75% federal and 25% non-federal. The outcome of this 2-year phase will be the design of the channel, implementation schedule, and estimated costs for construction.

Reporting in on 2025

» Outreach & Education

MPA outreach efforts continue to prioritize environmental justice, diverse representation reflecting the communities served, and raising awareness about the Port. Stakeholders have long been essential to the DMMP, and this is especially true for any new initiative under consideration, like CAD. MPA had undertaken an array of initiatives to address stakeholders' concerns, including:

- NIS staff initiated the EPA Ports Initiative Good Neighbor Road-mapping for project sites, aiming to provide a foundation to inform community engagement.
- The Governor's Appointment Office confirmed seven new members for the Cox Creek and Hart Miller Island Citizens Oversight Committees, which are both statutory committees. These appointments serve to update the membership rosters and fill five vacancies.
- A CAD subcommittee was established under the DMMP's Bay Enhancement Working Group to explore technical aspects and the viability of a second pilot project, including environmental impacts and benefits, location selection, associated regulations, and socioeconomic benefits and effects.
  - » The subcommittee plays a key role in identifying and verifying existing and needed information to evaluate CAD.
  - » The subcommittee completed its assessment of a possible second pilot program in May and has drafted a report that will be presented to the BEWG for approval and the Management and Executive committees for acceptance; it will then be released publicly. The report will detail the Subcommittee's work to reach consensus that data gaps need to be addressed prior to proposing a location for a second pilot; and will inform MPA's planning as it assesses CAD as a potential dredged material management strategy for Baltimore Harbor maintenance dredged material.
- MPA continued its robust outreach and engagement program to inform and solicit community feedback about a potential second CAD pilot project. The goal is to raise awareness and foster community engagement by providing timely project information in easily accessible, interactive forums. The outreach program creates an inclusive, collaborative, transparent, and responsive process to inform, engage, and establish a productive dialogue with various project stakeholders.
  - » Communications are facilitating a comprehensive sharing of information about Port dredging and needs, including MPA's capacity planning process and the potential CAD may offer as a dredged material management technique.
  - » MPA created various communications tools to keep community members updated on progress: a new newsletter, the *CAD Bulletin*, which published five issues; enhanced CAD webpages to include more robust information and an online platform to provide feedback; and updated CAD outreach resources, including a factsheet and an FAQ document.



  - » MPA also created a new video Spotlight Series, the first issue focused on CAD. It provides an overview and background information about CAD and explains why MPA is investigating it as a potential solution for maintenance material dredging from Baltimore Harbor shipping channels.
- Mid-Bay Project public outreach and stakeholder engagement are ongoing as the construction and design of Barren and James Islands advance. Targeted efforts have led to active coordination with local water users and watermen regarding restricted safety zones and safety planning for Phase 2 construction.
  - » In 2025, outreach efforts are building upon new community relationships forged in 2024 through the continued development of the Mid-Bay Community Stakeholder Group and plans to repeat participation in community events like Cambridge's Juneteenth Celebration and the annual Nause-Waiwash Powwow.
- Operated in partnership with Living Classrooms Foundation, National Aquarium, and USFWS, the Masonville Cove Environmental Education Center is a hub where area schools and community members participate in educational programs. In 2025 so far, the center drew over 3,000 visitors and made notable progress in enhancing the inclusivity of its programs, strengthening volunteer work, and greening the campus.
  - » This year marks the last year of implementing a 5-year strategic plan, and partners are currently co-designing the next 5-year strategic plan with the community to ensure equitable participation. They have enhanced volunteer engagement and community investments through Friends of Masonville Cove-led programming and increased involvement from the local community.

Reporting in on 2025

- Masonville Cove was designated as a Chesapeake Gateway Site, supporting accessibility for the public to become aware of the campus and benefit from becoming visitors. Through this National Park Service Program, Masonville Cove joins a network of places that provide visitors with opportunities to enjoy, learn about, and help protect the Chesapeake Bay watershed. Chesapeake Gateways includes a diverse collection of natural, cultural, historical, and recreational sites, trails, museums, parks, refuges, interpretive and orientation facilities, and the unique programming they offer to the public. Visitors will discover Masonville Cove when searching for a Chesapeake Gateway by activity, community, or state.
  - » Masonville Cove is representing Baltimore in the National Park Service's (NPS) Chesapeake Gateways Communities Initiative, an initiative fueled by collaboration that brings leaders of gateway communities of the Chesapeake together to connect nature-based and cultural tourism to economic initiatives. The Baltimore team, led by MPA NIS staff on behalf of the Masonville Cove Partnership, is a shining example of this collaboration; the team includes representatives from NPS, Reimagine Middle Branch, DNR Office of Outdoor Recreation, the Greater Baybrook Alliance, and the Friends of Masonville Cove. Together, they aim to support the Friends of Masonville Cove and the neighboring community to maximize Masonville Cove's benefit as a local asset, taking advantage of geography and location. The team uses valuable technical assistance from NPS to coordinate efforts and intentionally weaves the long-term planning of transportation systems, economic uses, and services with the ultimate goal of utilizing Masonville Cove to generate recreational and economic benefits that will directly benefit residents of those communities.
- MPA and partners are gearing up to host the Masonville Cove Links WildSTEM Summer Internship in partnership with the National Links Foundation. Recruitment that includes a focus at local Historically Black Colleges and Universities brings four interns together to explore conservation careers in non-traditional college majors, providing exposure to conservation career paths, practical experience, and a pathway for future conservation careers and leadership opportunities.
- Thanks to the support from the National Fish and Wildlife Foundation Chesapeake WILD grant program, the National Aquarium is partnering with the MPA to organize several camps and two special Girl Scout experiences, engaging 125 youth and scouts through immersive programming at the Swan Creek Wetland adjacent to Cox Creek and on Hart-Miller Island. Additionally, funding enables this year's annual Masonville Cove BioBlitz and a new BioBlitz on Hart-Miller Island, both planned for this fall.
- Following last summer's successful Youth Birding Camp, the summer camp program will again run for two weeks. In addition to birding and visits to DMMP sites, this year's campers will learn about how habitat restoration benefits bird populations. While based out of Masonville Cove, participants will enjoy trips and learn from expert birders at various DMMP sites like Hart-Miller Island and Poplar Island.
- With support from MPA and industry professionals, the Baltimore Port Alliance hosted its seventh Hiring & Career Expo, bringing together 43 employers who shared job openings at all levels and conducted interviews for positions requiring a range of education and professional experience. Together, they met over 300 job-seekers who learned about job openings, submitted resumes, and were pre-screened / interviewed.
  - » Exit survey responses revealed that 87% of job seekers found opportunities for which they will apply, and 60% of employers met candidates they are likely to follow up with for interviews or offers.
  - » This was the largest event to date, and 100% of job seekers who completed the exit survey noted they would recommend this event.

MPA's education and outreach efforts have resulted in over 11,206 engagements, including interactions with over 8,750 students from 273 classrooms.

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