



DREDGED
MATERIAL
MANAGEMENT
PROGRAM

MARYLAND PORT ADMINISTRATION DREDGED MATERIAL MANAGEMENT PROGRAM 2023 MID-YEAR REPORT

2023: Building the Future Together

Building on a successful history of thoughtful investment, careful implementation, and planning for future innovation, the Dredged Material Management Program (DMMP) put forth the following recommendations for 2023 to further support the Port of Baltimore in achieving successes that will benefit our region economically, environmentally, and socially for decades.

» Funding & Policy Recommendations

1. Engage the Maryland Congressional Delegation, American Association of Port Authorities, and federal and state partners to ensure favorable legislation and sufficient funding for priority DMMP projects and the Corps navigation program.
2. Leverage partnerships with federal and state agencies and related collaborative efforts, including the Maryland Commission on Climate Change, to facilitate legislation and funding that support the DMMP and the Port in addressing climate change and resiliency planning.
3. Seek available state and federal funding for GHG emissions reductions, including Port electrification opportunities, to meet the new target of a 60% reduction by 2031 and net zero by 2045. Looking ahead, leverage ongoing carbon reduction programs and other environmental initiatives with additional opportunities to achieve environmental justice, equity, and diversity objectives.

» Planning & Operations Recommendations

1. Conduct capacity and demand planning beyond a 20-year timeframe to support long-term sustainable dredged material management options while achieving capacity recovery through the 2020 IRBU Strategy.
2. Begin to remediate the property adjacent to the Cox Creek DMCF to implement long-term, large-scale IR and capacity recovery efforts.
3. Incorporate the potential impacts of climate change and facilitate the use of nature-based and climate resilient solutions into long-term DMMP project planning, DMCF design and operations, and related project delivery while leveraging the best science available to quantify carbon sequestration benefits from the beneficial use of dredged material.
4. Conduct a second pilot CAD project to further evaluate the concept under different conditions and refine techniques for utilizing CAD as a Baltimore Harbor dredged material management solution.
5. Explore alternative funding and cost savings options to advance the habitat design and future management of HMI North Cell in partnership with DNR.
6. Engage the Corps, the Commonwealth of Virginia, resource agencies, and other stakeholders to refine the list of suitable, cost-effective dredged material placement options, including beneficial use opportunities, for the Virginia Channels.
7. Ensure that planning, design, and operational efforts related to DMMP infrastructure and restoration projects accelerate nature-based and climate resilient solutions, consider and incorporate the equitable distribution of benefits, and that any associated adverse impacts are not disproportionately borne by vulnerable communities.

» Outreach & Education Recommendations

1. Prioritize environmental justice by effectively engaging with stakeholders (in English and Spanish wherever possible) and increasing the public's knowledge about the Port of Baltimore in order to pursue outcomes that equitably benefit all Marylanders.
2. Recruit DMMP committee members that reflect the diversity of the communities adjacent to, and impacted by, the Port.
3. Create equitable access to DMMP sites to intentionally engage youth in educational programs as a pathway to thriving career opportunities, including those in STEM and maritime-related industries.

Progress to Date

The Port of Baltimore saw a strong start to the year, and the DMMP continues to innovate while delivering on the mission to maintain the Port's 50-foot-deep channel system. The first half of 2023 has brought significant success as priority projects are advancing on or ahead of schedule, communities continue to work in collaboration with MPA regarding planning and decision making, and the DMMP is meeting its commitment to pursuing outcomes that are informed by science and equitably benefitting all Marylanders.

Reporting in on 2023

» Funding & Policy

Working towards achieving the strategic objective of engaging congressional delegations, federal and state partners, and port associations to ensure favorable legislation, sufficient funding, and support for climate change and resilience planning, MPA has undertaken the following initiatives.

- In February, MPA and Maryland Department of Natural Resources (DNR) met to identify opportunities for collaboration on coastal resiliency, including the potential for incorporating Innovative Reuse and Beneficial Use (IRBU) of dredged material into resiliency projects throughout the state. The meeting included a demonstration of the use of IR R&D products in shoreline restoration.
- MPA and the University of Maryland received a Federal Highway Administration Climate Challenge Grant to study constructing vegetative berms for flood protection from Baltimore Harbor dredged material and dredged material blends. This will involve creating and testing dredged material blends with three specific criteria defining a successful blend: (1) appropriate geotechnical properties, (2) acceptable environmental properties, and (3) the ability to rapidly establish vegetation in a berm setting. Blending materials under consideration include lime, recycled concrete aggregate (RCA), gypsum, and wheat straw. An optimized blend that best meets all criteria will be thoroughly tested.
- The Port will need additional funding for Green House Gas (GHG) emissions reduction programs to meet Maryland's new target of 60% reduction by 2031 and net zero by 2045. Providing opportunities to address these needs, the federal Inflation Reduction Act (IRA) is advancing complementary port funding initiatives. In May, the Environmental Protection Agency (EPA) announced two new programs to reduce air pollution and invest in port infrastructure related to emissions reduction. The EPA is currently seeking public comment on the initiatives, which include the Clean Ports Program and the Clean Heavy-Duty Vehicle Program. The Clean Ports Program will invest \$3 billion in technologies to reduce air and climate pollutants. The Clean Heavy-Duty Vehicle Program will invest \$1 billion in clean heavy-duty vehicles between now and 2031, with \$400 million directed to communities in nonattainment areas. The Port is reviewing possible grant application opportunities for both programs that are expected to open later this year.
- The Corps' FY2023 Work Plan allocated \$3.22 M in Operations & Maintenance funding to dredge the Honga River and Tar Bay (MD), improving access for watermen. Once containment features are constructed at Barren Island, part of the Mid-Bay project, the site can receive dredged material. The contract award for the second phase of construction, which will complete the confinement, and the first dredging event is anticipated in 2024.
- Senate Bill (SB) 782 was signed by the Governor in April and requires the Maryland Green Purchasing Committee to establish specifications for purchasing recycled materials and products. Dredged material was specifically named in the bill, and MPA is working toward the approval of dredged material as a qualified sustainable or recycled material.
- MPA, in partnership with Ports America Chesapeake, submitted a discretionary grant application to the U.S. Department of Transportation Port Infrastructure Development Program (PIDP) in April 2023 for the "Port of Baltimore Electrification and Resiliency Project." The purpose of the project is to electrify Seagirt Marine Terminal, remove diesel-powered cranes, and restore a living shoreline along the bank of Colgate Creek adjacent to Seagirt and a local Baltimore community. If successful, grant awards are expected to be released later this fall.

Reporting in on 2023

» Planning & Operations

Implementing strategic, operational initiatives aligned with the rolling 20-year plan proceeds apace in 2023. DMCF expansion, capacity optimization, and exploration of new management options all proceed apace with an eye toward the stated objective of finding sustainable climate-resilient solutions.

- Ongoing implementation continues with inflow at Poplar Island as well as at the Cox Creek and Masonville dredged material containment facilities (DMCFs).
- The Mid-Bay Islands Ecosystem Restoration Project is advancing, with notable progress on both Barren and James Islands.
 - > Barren Island Phase 1 construction began in March 2023, which includes installation of a majority of the protective stone sills and breakwaters that line the western side of the island.
 - > James Island design efforts are ongoing, with modeling and geotechnical analysis being used to determine structural and habitat design.
- Masonville DMCF expansion is underway, and dike raising to +18 ft and base dike widening is complete. Dike Raising to +30 ft will be advertised for bids in June. Construction is expected to start this fall and is expected to take 30 months. The final elevation of +42 ft will result in the site gaining approximately 4 mcy (million cubic yards) of capacity.
- The initial 30% design process is underway for the Masonville Cove Connector (MCC), a shared use path providing safe and equitable access to Masonville Cove. With funding from the Federal Highways Administration Federal Lands Access Program, the MCC will run along Frankfurst Ave., linking Masonville to the Gwynns Falls Trail and adjacent communities.
- The Cox Creek DMCF expansion to raise the dikes to + 60 ft. is approximately five months ahead of schedule and is anticipated to be completed by January 2024. The +60 ft. dike raising and expansion project provides 9.8 mcy of additional capacity.
 - > A new, innovative floating weir discharge system is being designed as a cost-effective, mobile, long-term alternative solution to the traditional spillway system for water management.
 - > MPA plans to submit a request to the Board of Public Works to secure the easement and begin constructing the Genesee Valley Outdoor Learning Center mitigation project for the Cox Creek DMCF expansion once all permit approvals are obtained.
- MPA has achieved significant IRBU milestones and advanced toward strategic programmatic goals.
 - > On December 22, 2022, MPA acquired property adjacent to the Cox Creek DMCF for the primary purpose of furthering long-term capacity recovery efforts through large-scale IR of dredged material and future cargo terminal/maritime use. This property will help in the capacity and demand planning beyond a 20-year time frame and is part of the 2020 IRBU Strategy.
 - > To date, seven IR Research & Development (R&D) contracts have been awarded to allow MPA to identify high-volume, sustainable reuse applications to support long-term strategic planning initiatives and identify the critical steps to making large-scale innovative reuse a reality at the Port of Baltimore.
 - > Results from four of the IR projects have been shared, and the products show potential for large-scale implementation. Additional contracts are being considered.
- Confined Aquatic Disposal (CAD) planning and investigative efforts, including geotechnical investigations and hydrodynamic modeling within Baltimore Harbor, have informed the proposed siting of the next CAD pilot cell in a location southeast of Cox Creek.

Reporting in on 2023

» Planning & Operations (Con't)

- > The area was presented to the Joint Evaluation Committee in February for feedback on the project and permitting strategies, and further coordination with the regulatory and resource agencies is needed before proceeding with the project.
- > Focused stakeholder and community outreach began to ensure feedback is incorporated into the CAD planning process. Communities have raised concerns about the proposed location for the next CAD pilot, so the project has been paused to ensure there is a thorough education and outreach process.
- MPA and Maryland Environmental Service (MES) continued exploring funding options for the North Cell Habitat Development of Hart-Miller Island.
- The Virginia Channels Bay Enhancement Working Group (VA BEWG) met regularly from 2021 through 2022 and developed a shortlist of potential beneficial use projects, sites, and concepts that could serve as an alternative to open water placement at Wolf Trap Alternative Placement Site. The U.S. Army Corps of Engineers (USACE) and MPA have entered into a Planning Assistance to the States program that will allow USACE to investigate the shortlist options more closely to serve the VA BEWG in narrowing down the alternative options for placement. Viable solutions must be environmentally acceptable, cost-effective, and logistically efficient.

» Outreach & Education

A top priority for MPA, outreach efforts continue to prioritize environmental justice, diverse representation reflecting the communities MPA serves, and increasing the public's knowledge about the Port of Baltimore to pursue outcomes that equitably benefit all Marylanders.

- To increase inclusivity and equitable access to MPA's sites, key outreach materials such as fact sheets have been made available in Spanish, and translation will continue to be applied across other communications and websites.
- MPA's Education and Outreach efforts have resulted in over 9,000 engagements, with over half of the interactions with students from 171 different classrooms.
- Mid-Bay public outreach and stakeholder engagement are ongoing, and in early 2023, targeted efforts led to increased engagement and dialogue with watermen regarding restricted safety zones related to the start of Barren Island construction.
- Shoreline clean-up efforts at Masonville Cove, including community events, removed 1,022 lbs of debris from the ecosystem to complement the 2.5 tons collected by Captain Trash Wheel so far this year.
- Masonville Cove Environmental Education Center staff and U.S. Fish and Wildlife Service (USFWS) members have been participating in a course titled Co-designing Conservation with the goal of learning how to better work with communities to develop conservation goals, projects, and programs curated for local communities and will begin implementing these inclusive principles in and around Masonville Cove.
- With support from MPA and industry professionals, the Baltimore Port Alliance hosted its fifth Hiring & Career Expo, bringing together 38 employers and nearly 250 job-seekers. This was the largest event to date, and 100% of surveyed exhibitors indicated they would attend a similar event.
- Hart-Miller Island (HMI) State Park re-opened for seasonal recreational use on May 1 this year. MPA continues to partner with the Friends of HMI to explore opportunities for enhancements and pursue philanthropic funding opportunities.
- 60% design of the Swan Creek Nature Trail, a community enhancement recommended by the Cox Creek Citizens Oversight Committee, was completed in January 2023. Valuable input from stakeholders on the design and external funding has helped advance this project.

Looking Ahead: Expected Milestones This Year

» Funding & Policy

- MPA and DNR will meet quarterly to continue collaboration on climate resiliency planning.
- MPA has been awarded Supplemental FLAP Funds, which will be used to complete design and construction of the Masonville Cove Connector (MCC).
- MPA expects the EPA to release the notice of funding opportunities for both new emissions reduction grant programs later this year and expects grant awards from the USDOT PIDP to be announced this fall.
- In June, the House Appropriations Committee will markup the FY2024 Energy and Water Development appropriations bills, which include the USACE Civil Works program.

» Planning & Operations

- Drafting of the Barren Island Restoration Supplemental Environmental Assessment (SEA) Borrow Area Addendum has begun. The addendum is anticipated to be ready for public review in August. Contract solicitation for Barren Island Construction Phase 2 is expected in December. This will include Honga River dredging.
- MCC 30% design process is anticipated to be completed, and community engagement and outreach to solicit design feedback will begin this summer.
- Final design of the Swan Creek Nature Trail, a community enhancement recommended by the Cox Creek Citizens Oversight Committee, is expected in August. Construction is anticipated to begin in December, with a goal of being open to the public by 2025.
- Working with partners at MDE, MPA will be developing remedial action plans for the IR expansion site adjacent to Cox Creek over the next year. The goal is to start development of the site for IR activities as different sections of the property are remediated.
- The Seagirt Marine Terminal Berth 3 Deepening and Deep Loop feasibility study, a 3-year study to assess options to relieve the terminal's berth capacity bottleneck and enable more efficient vessel movement, has been completed ahead of schedule and under budget. The study, which is expected to be finalized by September 2023, recommends deepening and widening the West Seagirt Branch Channel to -50ft MLLW (Mean Lower Low Water), at which time the recommended channel deepening and widening project can enter the next phase, preconstruction, engineering and design.
- The VA BEWG has begun Phase Two: Corps Planning Assistance to the states' study to refine the shortlist further.

» Outreach & Education

- On the heels of last summer's successful inaugural Youth Birding Camp, a summer camp program will once again be held in July. In addition to birding and visits to DMMP sites, this year's camp experience will introduce students to career paths related to the Port.
- MPA and partners are gearing up to host the Masonville Cove WildSTEM summer Internship in partnership with Harbor City Links. Focused recruitment at local HBCUs is bringing 5 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 in a wide array of career fields, including biology, criminal justice, computer science, urban art, and African American studies.
- Mid-Bay stakeholder engagement will continue to progress as construction and design of Barren and James Islands advance. Additional community listening sessions, group meetings, and an open house poster session are planned.
- Further progress on the CAD pilot project will be paused while a comprehensive outreach and education strategy is developed and implemented.
- Cox Creek will host its annual Community Open House in October, providing opportunities for tours, education, and the always popular "touch a truck" for younger visitors.
- The 4th Annual Hart-Miller Island 5-Miler running race will be held on October 21, 2023, to benefit the Friends of HMI and Maryland State Park Foundation.